Forum for Social Practice
in Art/Media

Cultural Resistance in the Post-Open Data Age

Report

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Organized by

Arts Council Tokyo, Tokyo Metropolitan Foundation for History and Culture

ARTS COUNCIL TOKYO

THE FUTURE IS ART
文化でつながる。未来とつながる。
Tokyo Tokyo FESTIVAL

Foreword

Arts Council Tokyo and the Japan Foundation Asia Center have co-hosted the “International Symposium for Media Art” three times since 2016, with the aim to create and promote art and culture related to media art and other fields of digital creative work, and establish networks.

In 2019, Arts Council Tokyo individually launched the ”Forum for Social Practice in Art/ Media” as a new platform for examining society against the backdrop of evolving media and technology from the viewpoint of art, and thinking about possible ways into the future.

For this forum themed around ‘Cultural Resistance in the Post-Open Data Age,’ we invited guest panelists from the UK, Taiwan and Japan, to introduce their pioneering work interconnecting art, media, technology and society. “What is the motivation behind activities confronting issues of violence and bias that lurk in our society? How do they identify social problems, and what methodologies do they employ?” These are the questions that we shared with the panelists and audiences alike, to inspire a discussion about new possibilities regarding social practices, and methodologies for ourselves to become the practitioners.

There has been great public interest in this forum even before it took place, and on the day of the event, the panelists wrapped up the forum by exchanging their multifarious views in a heated and highly suggestive discussion. Considering also the extraordinary current circumstances resulting from the spread of COVID-19, it was a valuable opportunity for consolidating ideas regarding possible roles of art, media and technology in society in the future.

Finally, we would like to express our heartfelt thanks to the panelists and visitors for their participation in the Forum for Social Practice in Art/Media.

Arts Council Tokyo, Tokyo Metropolitan Foundation for History and Culture

March 2021

Event outline

Forum for Social Practice in Art/Media 'Cultural Resistance in the Post-Open Data Age'

| Date and Time |

December 15, 2019, 13:00-18:30

| Venue |

1F Hall, Tokyo Photographic Art Museum [1-13-3, Mita, Meguro-ku, Tokyo]

| Speakers |

Eyal Weizman and Christina Varvia [Forensic Architecture]

Bess Lee [g0v]

Ai Hasegawa

Kazuya Kawasaki

Taichi Sunayama

| Moderators |

Kazuya Kawasaki

Taichi Sunayama

Junya Yamamine

| Organizer |

Arts Council Tokyo (Tokyo Metropolitan Foundation for History and Culture)

| Administration, Press |

Media Design Research Inc., PLUGIN art & press

| Video Documentation |

Ney-Anton G.K.

Contents

Session 0 - 4

Session 0

Message from the planner: Resilience — The coming age of cultural resistance

Junya Yamamine

Junya Yamamine (JY)　I would like to begin with a short introduction to the general outline and orientation of this forum.

I was approached by the Arts Council Tokyo, who asked me to help put together a program, and take charge for everything from the conception to the casting for this forum. The conception of this first in a series of new events to be hosted by the Arts Council Tokyo was based on the proposal of "media art as a social sculpture" as a general theme. As for my own personal background at the time of this assignment, I have been working as a curator with a critical approach to such matters as stereotypes and biases resulting out of media environments. I believe that I was approached this time because I have curated

Junya Yamamine

exhibitions in the past that aimed to introduce the public to the problems involved, through the works of artists.

As the title "Forum for Social Practice in Art & Media" suggests, this forum takes social practice as its central theme. Furthermore, the addition of "Art & Media" reflects the aim to explore possible practices that may be useful for a society established from a bottom-up approach based on viewpoints and voices focusing on the protection of the weak, such as the formation of a civic society, the protection of human rights and cultural diversity, and individual empowerment, rather than utilizing the current technological environments for the benefit of strong economical/political powers.

One thing that has to be made clear from the beginning is the fact that this forum itself is in a way biased. This bias is defined through the orientation of this forum, which collides with the idea of entrusting the formation of society entirely to a specific, small group of people, or aiming to create a society that only benefits a certain group of people. I hope that this forum will be an opportunity for everyone in the audience to listen to the discourse that will necessarily be subject to this orientation, and take something home that inspires them to think about what can be done.

However, while speaking of such noble goals, I feel at once that, considering the insignificance of what a single human being can do, confronting the massive social framework is in reality quite an extraordinary feat. I am one of those little human beings myself, so such talk about changing society weighs very heavily on me. The guests that we have invited to this forum from overseas, however, have been engaging in powerful activities that also have a certain influence on society. Inspired by their own accounts of their respective work, it is my desire to make this an opportunity for addressing what sounds like a dream, and taking it a little bit closer to reality, also in the form of future practical activities that I am expecting this event to trigger.

I hope that this introduction was helpful in conveying the basic underlying thoughts that went into the organization of this event.

Media art as a "social sculpture"

Let me briefly explain my thoughts about "media art as a social sculpture."

Joseph Beuys once claimed that "Everyone is an artist," and coined the expression "social sculpture" to refer to the act of behaving of one's own will, and considering that activity within society itself as a work of art.

While media art increasingly tends to be regarded as a commercial tool for entertainment purposes, it originally contained an element of resistance against censorship, by intervening in and dismantling existing systems by way of hacking or other personal statement different from video-based mass media. Like the groups in eastern Europe that hacked radio programs in order to gather information that otherwise wasn't obtainable in their countries in the 1990s, media art also exists as a form of activism in conflict areas. In other words, it is about the utilization of media as a technology for individual empowerment. Such is the backdrop that inspired us to set our theme, "Actions for the real society using today's technologies/media."

In my previous work themed around media environments and biases, I have introduced a number of individuals and their alternative activities against biases as presented by the mass media and the Internet. Bias here refers to certain tendencies in the realms of society, family, environment, education and media that are rubbed into us in everyday life, and exert powers that move us in certain directions before we knew it. I have been introducing artworks and activities that discuss how individual human beings are influenced by such biases.

Public Opinion is a book that was written by Walter Lippmann, and published in 1922. It is a book about things like stereotypes and affect, in which the author also mentions the limitations of democracy. The ideal democracy assumes a state in which all people are able to behave actively and smartly to a certain degree, but this is in fact quite difficult to realize. Therefore, according to Lippmann, in order to realize a democracy based on an understanding of the public benefit, it is necessary to have "special people" with a "sense of responsibility," who also possess the necessary knowledge to utilize media in order to lead. Noam Chomsky, however, criticizes such control through media, as it would mean a centralization of the distribution of information (*Media Control: The Spectacular Achievements*

of Propaganda, 2002)

"Stereotypes" refers to fixed ideas and preconceptions that have been accepted as conventional wisdom. Some say that it is the political function of the mass media to heighten people's attention in this respect, and wrap the world up in stereotypes. In response to this, one may consider video and hacking as means of resistance that relativize and oppose biases by presenting alternative directions. In other words, increasing one's own trusted sources of information is a form of self-defense against control through media as a result of stereotypes.

DIY culture emerged as a form of resistance against such powers – the powers of the media, and the current trend of an increasingly commercialized society. There has been a movement focusing on video as a new communication tool at the US west coast [1], and it was Fujiko Nakaya who introduced such movements here in Japan, including also in her exhibition last year. Stewart Brand's *Whole Earth Catalog*, a guide to living by DIY principles published from 1968 to 1972, became highly influential in the 1970s, and it is said that it affected to some extent also the video movement.

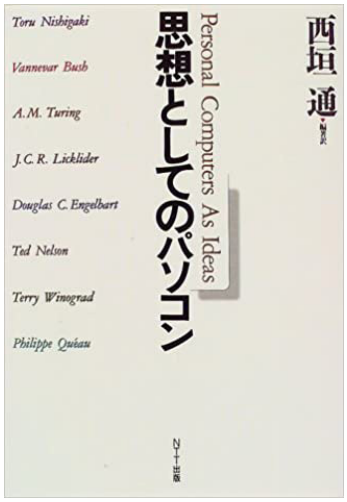
It inspired a discussion on ways of sharing intelligence internationally, resulting among others in the Xanadu project proposing a universal democratic hypertext library for publications around the world. At a time when there were only those huge mainframe computers, Steve Jobs was one of the people who started thinking about designing computers for individual personal use. Then came the birth of the Internet, and the according transformations in media systems raised expectations toward the democratization of media based on decentralized, cross-sectional network structures, as opposed to the top-down mechanism of stereotypes.

The advent of IT, and the new issues that came with it

What actually happened is that four major American companies – collectively referred to as "GAFA" – built a global Internet infrastructure, utilizing which to gather information involves giving away personal data, and according to that, the information provided is ultimately defined through all kinds of biases. It also happens that users are divided into limited communities with the aim to obtain the desired information only, or that social media get flooded with comments on certain actions by a certain community.

In recent years, there have been reports on how the political consulting firm Cambridge Analytica illegally obtained personal information via social networks, and used that for political campaigns related to Brexit and the US presidential election in 2016. Other issues that the emergence of new media environments brought along include reported racial discrimination in personal identification algorithms for AI, fake news, agitation, image recognition and information monitoring, and the shaping of public opinion and peer pressure through posts on social media.

Regarding the use of computer technology, we may go back as far as 1945, when the possibilities of memex, somewhat a prototype of the Internet, were discussed in an essay titled "As We May Think." It is about machines with the same functions as the human brain, which can be connected to the brain to instantly access information all around the world. These things were proposed by Vannevar Bush, a man who became known for playing an important role in the organization of the US military, and for being a central figure in the Manhatten Project, which developed the atomic bombs. Toru Nishigaki writes in his book *Personal Computers as Ideas* (NTT Publishing, 1997) that not only such directly violent things as an atomic bomb may be referred to as "power," but in terms of being able to control people, technologies that produce infrastructures such as multimedia are mighty powers as well.



Toru Nishigaki et al. *Personal Computers as Ideas*, NTT Publishing, 1997

In other words, things like new multimedia environments result in the generation of one power. To unconsciously and uncritically praise certain types of power and technology becomes a form of propaganda for the respective power itself. This is how today's media art certainly involves considerable risks, and in that respect, I believe that it is necessary to approach matters of technology and power with plenty of criticism.

"Hello World – For the Post-Human Age," held at Art Tower Mito in 2018, was an exhibition that featured artists whose works are targeting such topics. It caused quite a buzz and raised a few questions, however when it comes to actually taking those question and running with them in times as complicated as these, that's the difficult part. But problems won't be solved only by raising them, so personally I have been focusing very strongly on the importance of stepping out of the art museum, and making some kind of action in the real society.

Freedom of speech and the "power to silence"

If we take a look around the world, we see large demonstrations related to regulations for fugitive criminals in Hong Kong; we see Brexit happening in the UK, xenophobia in the US, and significant reduction in the support of cultural activities in Europe. People suspect that there are paradigm shifts happening right now that are different and more chaotic than ever before.

In Japan, we have director Miki Dezaki's movie "Shusenjo: The Main Battleground of the Comfort Women Issue" (2018). The movie highlights the stance of the Japanese government regarding the issue of so-called comfort women, and exposes the trend of a systematic movement to the right. The movie further makes reference to information related to the Prime Minister, Cherry Blossom Viewing Party, historical revisionism, and the rewriting of history books among others.

One typically Japanese characteristic is a strong bias toward security, and away from taking risks. That invoked a society that would not or cannot speak out, which is why the Japanese people tend to quickly resign or give up thinking. The result is a society that is easy to govern, and a growing indifference toward politics. We are in fact heading toward a state of social unfreedom that may inspire other countries to jokingly call us a "well-

functioning socialist state."

In 2019, there were several cases of censorship by the Japanese government that exemplify the "power to silence" voices in the realms of art and culture. The Agency for Cultural Affairs' refusal to grant subsidies for the Aichi Triennale 2019 and for Tetsuya Mariko's movie "Miyamoto" (2019); the Japanese Embassy's protest against the "Japan Unlimited" exhibition in Vienna; the Japanese Consulate's pressure related to "Shusenjo;" or the alteration of guidelines for funding art and culture, which now stipulate that funding may be revised or canceled when a project is deemed inappropriate in terms of public interest. Even though these things don't necessarily all indicate a political relationship, I think they suggest a certain synchronicity. When looking at it this way, one can certainly say that there is a "power to silence" at work that suppresses all criticism regarding the direction the nation is heading into.

This "power to silence" comes in several variations. There is the type that aims to distract from the problem by offering enjoyment and entertainment. And then there is the manipulation of impression by way of biases and stereotypes that cause people to give up thinking when information is too complex or confused. Silencing people through peer pressure on social media, or even through violence, are also ways. In my view, this means that not making politics a topic, and not examining backgrounds, is an attitude that further promotes indifference. One means that may be useful in the fight against these problems is cultural resistance.

Is art an effective means for tackling social issues?

The next question is now, can art function as a countermeasure? I think it can, but it has its limitations. Does dealing with social problems mean contributing to society? Or does it all come down to just being evaluated within the realm of art? In my view, this is quite an important issue.

The program of this year's Venice Biennale, titled "May You Live in Interesting Times," included the screening of a video work by the artist Arthur Jafa ("Arthur Jafa's Love is the Message, The Message is Death," 2016). Jafa made this work from movies related to racism in America, which he had collected from the Internet. It shows a desktop computer on

which someone browses through various scenes depicting issues related to black people. I thought that this portrayed situation was in fact strongly amplified by international art exhibitions. You have social issues first, and the parties concerned, and then you have artworks that take these things as their subject, which are then exhibited at places like Venice Biennale, where mostly wealthy people come to see them. This inspired me to think about what exactly the problem of art is, that is highlighted through this kind of relationship.

Let me return to Joseph Beuys's quote, "Everyone is an artist." Here he uses the term "art" to praise the freedom of people to move and act as part of society. On the other hand, this evaluation reflects a trend that can also be observed in the realm of art. This again means, however, that addressing social issues is a way for artworks to receive an evaluation as works of art. It seems that a reversal of sorts is taking place here, making social issues a "means" for art.

Regarding the situation in the art circuit, the artist Hito Steyerl pointed out in her lecture performance "Is the Museum a Battlefield?" (2013; https://vimeo.com/76011774) that military related companies were involved in the Istanbul Biennial. There has also been a protest campaign by artists at a recent Whitney Biennial, demanding the resignation of the vice chairman of the board of the Whitney Museum for his ties to a company that manufactures military arms. Forensic Architecture (below "FA") participated in that as well.

So how can we go further than merely proclaiming a vision and creating visionary mock-ups, and do something in the real-world society? With some irony, but at the same time with a strong desire to initiate a new trend, we took the initial letters from the words in the phrase "Social Practice in Art and Media," and abbreviated it to "SPAM." The idea is to use the power of SPAM to tackle major social issues with multiple coincidental activities, and change society through the practice of social hacking. The members of g0v also refer to themselves as a hacking community, and engage in activities that are aimed at making the world a better place – not for a limited number of beneficiaries, but for every single human being that is part of society.

FA has been based at Goldsmiths, University of London since 2010. We are pleased to introduce director Eyal Weizman and Christina Varvia as speakers at this forum. Weizman is someone who experienced the resistance in Palestine. He uses a variety of tools including architectural techniques, social media analysis, audio, video and 3-D technology,

and mapping, to conduct scientific criminal investigations of information that is not made publicly available through the media, and crimes that are deliberately ignored by governments. He further works out methodologies in accordance with the times, processes vast amounts of information, to ultimately present important objective evidence.

The strength of FA is, first of all, that they are committed to society, and that they exhibit the persuasive power of clear and forceful evidence. Plus, they have the power to convey problems with specific areas to the global community through international art exhibitions and summit events. I think they have been operating as communicators with the outside world, on behalf of people in areas where suppression prevents them from speaking for themselves.

We are also pleased to introduce Bess Lee from g0v in Taiwan, a civic tech and hacker community that was launched in 2011. In addition to practical activities including the visualization of national budget, the digitalization of official documents, and the organization of information about candidates in elections, they gained attention with their live streamings covering the occupation by the Sunflower Student Movement. At present, they host the largest civic tech conference in Asia, and since the change of government, they have been operating as a community that envisions the realization of an open government, and transparent politics carried out together with the people. The "vTaiwan" project focuses on community building that involves the possibility of jointly reviewing civic problems. Such grassroots type activities become the driving force that causes a transformation of society, and ultimately, they become g0v. The expression "g0v tech" is used to refer to the tech community that, in a hackathon style, addresses social issues together with politics.

Next to these speakers that we would like to introduce their activities in real-world communities, the panelists from Japan are Ai Hasegawa, Kazuya Kawasaki and Taichi Sunayama whose views we would like to incorporate in our discussion about future possibilities.

[Note]

1 Michael Shamberg & Raindance Corporation, *Guerrilla Television*, 1971

Session 1

Cultural resistance by advanced spatial and media investigations in the activities of Forensic Architecture

Eyal Weizman + Christina Varvia [Forensic Architecture]

| Moderators | Taichi Sunayama, Junya Yamamine

Christina Varvia (CV) Thank you to the organizers of this event for inviting us and bringing us here from London. It is an absolute pleasure to be here in Tokyo to present the work of FA. We will basically show you a few projects today, and try to explain some of the methodologies that we have been developing at FA. We will also explain a little bit how we move between different types of activist practice, artistic practice, political practice, etc.

FA is a research agency based at Goldsmiths, University of London. It was founded in 2010 by Eyal, who is sitting next to me and will be talking to you later on. We are a multidisciplinary team of architects, artists, designers, journalists, lawyers and programmers.

Christina Varvia (Forensic Architecture)

Together we undertake investigations into cases of human rights violations, for which we work with a variety of collaborators – NGOs, human rights groups and other grassroots organizations. We develop new techniques and methodologies in order to figure out what is taking place in situations of conflict. We have worked a lot in the Middle East and in Europe, Africa, South America, etc. The investigations employ different methodologies in order to figure out what is taking place, and we present the results in national or international courts, or in parliamentary inquiries in the UN, but also through media – online and other mainstream media, social media – and exhibitions. The way we work across different forums is quite important for us, because it is always difficult to find ways to create political pressure, so when some of those routes for dissemination are blocked, we need to find others. Sometimes we are able to present our findings in courts, but sometimes a court is not the best place to discuss and negotiate what is going on in a particular situation of conflict, because the court itself might be biased. So we try to find ways to create other pressure points.

Investigation 1: The Bombing of Rafah

To explain a little bit the methodology behind what we are doing, let me start with an image to illustrate the classic understanding of forensic architecture. It is traditionally a practice of building surveyors, who look at buildings such as this one, and try to read the symptoms of what they understand has taken place.

They might look at cracks and other traces of destruction, and try to figure out whether it was caused by bombing, by bulldozers, by an earthquake, etc. This is the more classical way of trying to extract events from readings of ruins. Very often, though, we don't have the ability to travel to the places that we are investigating, so we have to depend on media such as photographs and videos that were taken at the time of the events. Especially now that cheap recording devices are proliferating, this means that we have hundreds of video clips from the ground.

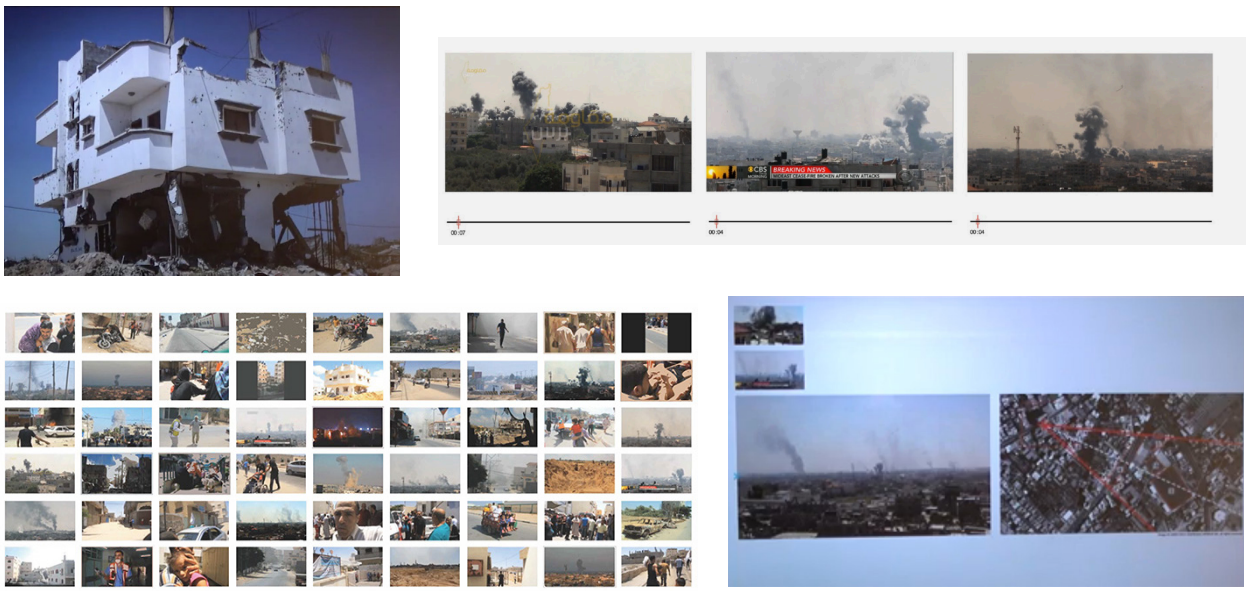
The problem here is that it is very difficult to make sense of what has happened, because the story is lost somewhere in between all of those clips. What we have to do is try to find connections between the different pieces of evidence, the different videos. Here we

are looking at the clouds resulting from a bombing as captured in three different videos.

By studying the morphology of the bomb cloud, we can conclude that the three videos are actually describing the same event, and then we are also able to synchronize them.

The traditional part of our work is to geolocate those photographs by looking at identifiable elements in the architecture described in the footage – the football stadium and the water tower for example. Through this we trace backwards the point of view of the photographer, and by measuring different parts of the buildings, we are also able to establish a very accurate photographic angle.

Doing this allows us to geolocate and find a very precise location for the event. What we do here is work backwards from the plumes, looking at the fact that the plumes were taken from the middle of the picture, and cross-referencing three different pictures to find the site where the destruction occurred. Then we can also bring in satellite images, which are again photographs of a different kind, to corroborate the fact that there has been destruction there. The problem that we had here was that we didn't have an accurate time



Top left | Utilizing media to analyze what caused the destruction of this building

Bottom left | Pieces of evidence from different video clips

Top right | Three videos showing the same bombing

Bottom right | Determining the filming location from elements in the picture

for this series of three images, but we noticed that in one of the videos, we can also see shadows on the rooftop of a building, so we can do a sun simulation to figure out the time when the image was taken.

So as you see, we are treating the image itself as evidence, and it requires a certain type of analysis to be able to extract the information that the photographer captured, whether he or she did so knowingly or not. The event here is the smoke, but somehow the shadow itself contains a certain record that will help us later in cross-referencing and understanding at what time this happened. This is from the bombing of Rafah in the Gaza Strip, an investigation that we did with Amnesty International. Amnesty had obtained a lot of witness testimonies, but they couldn't corroborate them because the evidence was quite abstract. By trying to figure out the sequence of images and how they relate to each other, looking for those links, we start piecing together the story of what happened that day.

Here we see a series of images that clearly have wrong metadata, the camera seems to be set incorrectly, but we noticed that the sequence of the images is accurate. We can see that the photographer took a picture, and then two seconds later a second picture and a third one. We reconstruct this rhythm in real-time, and notice the same bomb cloud that was also captured on a satellite image, which has really accurate metadata. We can measure the size of the two bomb clouds in the two images to make sure they depict the same event, and therefore the time stamp of the satellite image can be used to time the perspectival image.

So this becomes a sort of Rosetta Stone for us, a link between the two pieces of

Left | Calculating the time based on shadows on the roofs

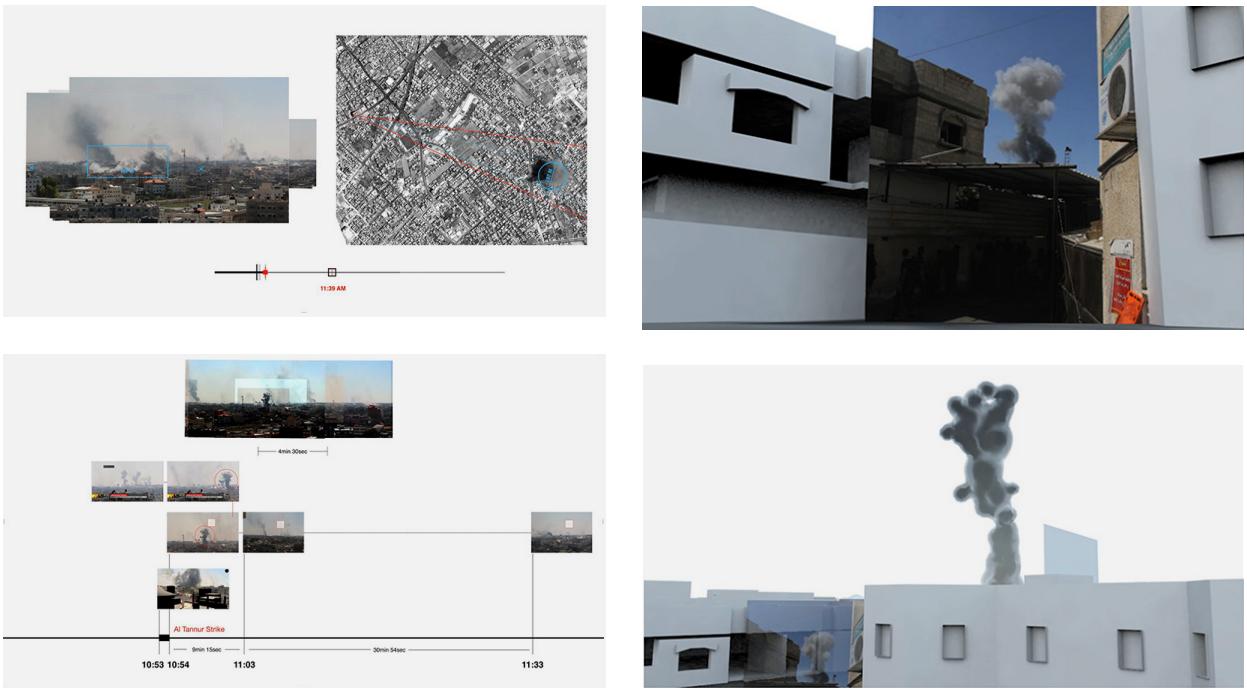
Right | Finding connections based on the order of images and how they relate to each other

footage. We are able to accurately time this whole sequence of images, and create a chain of connections, a certain kind of model for piecing together the whole story.

Another set of images comes from the same camera, which we realized because it has the same hairline on the lens. Building out from this connection to other sequences, we are able to figure out when the first bombing happened, and where the tanks were that we see coming in on the satellite images. By reading also the witness testimonies, we try to figure out how people were moving through the city while it was being bombed.

Another way is to work with 3-D models, as you may have noticed in the shadow analysis simulation. It's not enough to connect those images in time, but we also need to figure out how they relate spatially.

This way of understanding the temporal and spatial connections of images is what we call the "image complex," a method that we devised in order to extract spatio-temporal information. Here we see two bombs falling, from the same photograph. What is interesting



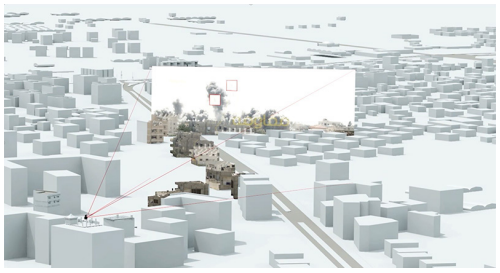
Top left | Collating composite images and a satellite photograph
Bottom left | Calculating the time and place while defining relationships of the footage
Top right & bottom right | Using a 3-D model to grasp the situation spatially

about this particular image is that we can capture the actual bomb as it drops. We can pinpoint the exact locations of the craters, and that gives us a very precise measurement of the impact area. All this helps us identify what type of bomb it is.

But most importantly, we are able to freeze those bombs in midair, and as we know exactly the angle of the photographer, this enables us to measure how big they are. So we know that it's approximately 150 meters from this building to that building, and by association, we are able to extract and measure within a grid how large the bomb is.

This is how the model itself helps us extract information about where the bomb comes from. Now we know that the bomb is 3.6 meters long, which is the largest in the Israeli arsenal, so we figured out that the Israeli army has in fact dropped a 1-ton bomb in a residential area, while people were returning to their homes. We were able to corroborate that with other accounts, and with other events that happened on the same day. For example, here we have the bombing on a motorcyclist who was escaping. They all happened along the same route.

So in order to piece together the story, we examine the media evidence that has captured different pieces of partial, incomplete evidence, conditioned by their frame, and



Top left | Two bombs being dropped

Bottom left | Calculating the filming angle and distance

Right | A motorcyclist tries to escape the bombings seen in the picture

not allowing us to see the whole picture. We take all of those fragments and work them within a 3-D image complex to understand what happened. The bomb clouds acted as kind of beacons for navigating through the city, and by composing all of this into a 3-D model, we were able to extract that knowledge.

Investigation 2: Torture and Detention in Cameroon

In a different situation, we discovered the presence of American soldiers in a military base in Cameroon, where we know from witness accounts that torture is taking place. We discovered that Americans were there, because they took pictures of where they were working, and forgot to take the location tags off before uploading the photos to Facebook. So we could search that location on Facebook, and we found images and videos in which American soldiers are actually training the local military group how to use different kinds of technologies such as night vision for example, which is the video you just saw.

At the same time, we know from the witness accounts that, just a few meters away, the soldiers that are being trained by the Americans, are actually torturing prisoners. Because it's quite hard to get international attention on these issues in Cameroon, finding a way to know that the American army has a certain influence meant that we could open up a different kind of investigation.

Left | 3-D "image complex"

Right | Photo taken at a military base in Cameroon, posted on Facebook

Investigation 3: Torture in Saydnaya Prison

The other project I want to show you a bit more in detail is one that we did again with Amnesty International. Unlike the first one, we did not have hundreds of images, but on the contrary, there was only one image, and that's the satellite image below. It is the Saydnaya prison in Syria. In Syria, tens of thousands of people have disappeared since 2011. They had been taken to a network of prisons, and some of them ended up in Saydnaya, the last stop in their detention as political prisoners. This is a government-operated prison.

They are kept in horrible conditions, with reports of systematic, brutal torture and terrorizing, where hundreds have died in confinement from hunger or cold. This is one of the most horrific places on earth, and no-one can access it. No independent journalists or NGOs are let in, so we don't know exactly what it looks like. Nobody really knows what is happening in there, except for the few people who have managed to escape or were released after long periods of confinement. We met five of the witnesses who were prisoners in Saydnaya, and tried to reconstruct with them the prison from their memory.

Here again, memory is a different type of medium if you like. The brain is a material substance that captures information, but it does so in very different ways, and often it is

Satellite photograph of Saydnaya prison

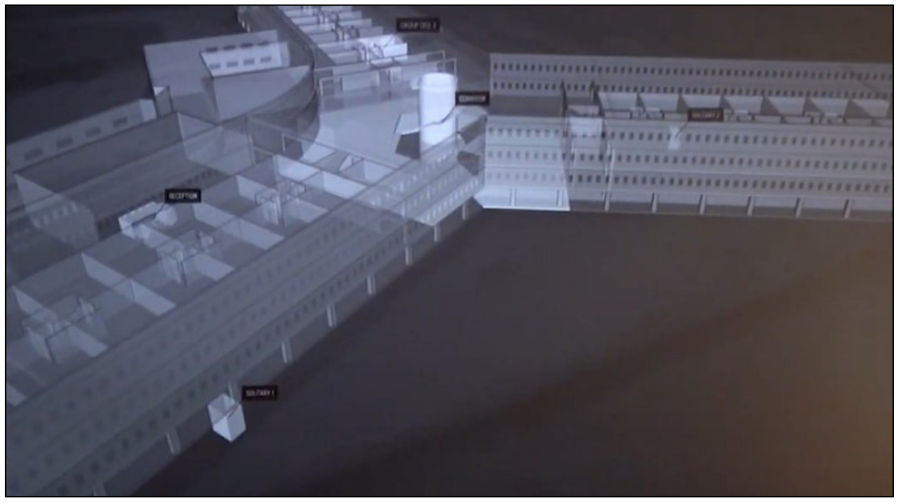
difficult to extract that information from memory because it gets distorted with the experience, the emotional burden of being tortured for example. What we did here was devise a method that we call "situated testimony." Essentially, it is a form of interviewing, that allows memories to come back from the three-dimensional reconstruction of the space itself. The setup was: the witness sitting in the middle at a desk, and in front of him a very large screen. On one side you had an architectural modeler who asked questions about the space, and on the other side you had an acoustic investigator who was asking questions about sound. In this way, we reconstructed the spaces that they remembered.

It is important to note that the prisoners at Saydnaya didn't have the ability to walk around freely. They were first taken into a cell where they were kept for a few weeks in what we call a "solitary cell," even though it was not solitary but a very crammed, small cell. Then they had to cover their eyes with their shirts or their hands while being taken to a different place. It was a group cell, a little larger but again very crowded, and they stayed there for years and never left. There was no conception of what goes on outside.

There was also no possibility to speak out loud in this prison, so the fact that there was silence constantly, that they were not allowed to scream or to speak at all even when being tortured, was another condition of terror. This ultimately created the very unique situation where the prisoners became very acute to different sounds. The memory of the sounds enabled them to understand and describe to us what the spaces outside their cell were like. Based on what they were hearing, they could tell if a space had a lot of echo, if you could hear people coming from afar, and very often the prison guards were trying to trick them. If they opened the door and people weren't in their safety positions – kneeling, facing the wall and covering their eyes – they got tortured even more, and sometimes the guards would sneak up and try to be really quiet when they open the door to surprise them. So they started getting very sensitive to those sounds, and became able to identify even the smallest of sounds, to understand if there was something threatening coming. They were also able to recognize the different types of torture that were happening. That condition of absolute silence was another way that the architecture itself was carrying the terror, because the corridors were amplifying every sound. At some point in the interview we asked them to describe the smallest sound they could hear. We had a constant beep playing, and asked them to tell us the volume at which they could hear it. The volume was really low in the

beginning, but they kept telling us to turn it down, until none of us in the room could hear anything at all, but they could actually still hear it. Next to the fact that they developed a new skill of listening, this illustrates also the constant state of fear they were in, because they were always alarmed and waiting for someone to come in and torture them.
I'm going to play a short video from one of those interviews, and we will then discuss it.

You see here how we reconstructed the spaces based on their memories of sound. We also reconstructed the spaces by 3-D modeling, with the FA team only acting as technical aides, the ones that helped the witnesses do the modeling. Those who described and reconstructed the spaces were the witnesses themselves. This technique is quite interesting because we have noticed that, when people focus on a space – the textures of the walls, the sizes of tiles, etc. – to describe it, they start remembering events that have taken place in it, and that is interesting for us because we see how memories are connected to space. Even if our questions seemed irrelevant to the stories they were telling us, they had to move back into that mental place in order to describe the space to us, and when doing so, they remembered more and more details of their time there. When asked how big the opening in the door was, one of the witnesses described that it was just as big as his head, which he knew because he had to put his head in the opening in order to be beaten through it. So the way that he understood the architecture was only through the experience of torture, and

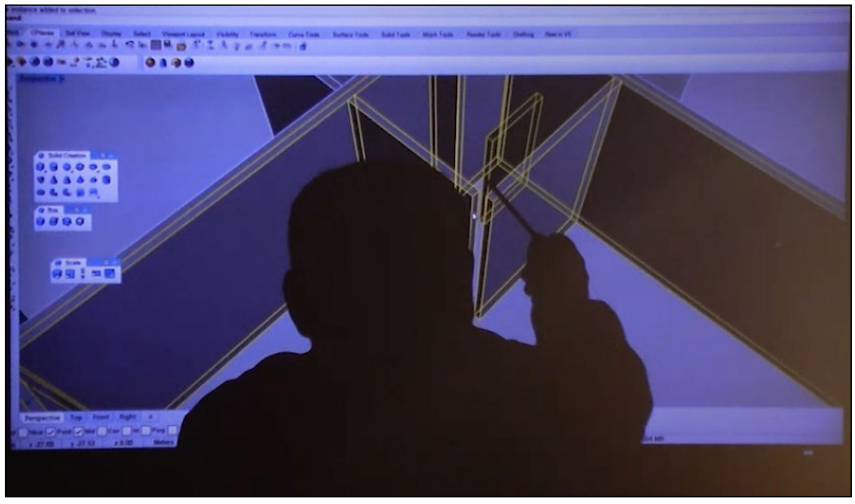


Computer-generated 3-D reconstruction of the prison

that's a memory that came back through this reconstruction.

I want to show you another video to explain how that reconstruction works, and that, very often, what is interesting in these cases is that memory itself is not perfect, and somehow captures the trauma that has been part of that experience. In many cases there were errors in the reconstruction of a place, but instead of saying that this person is not good enough as a witness because they couldn't remember well, we focus on those errors in order to understand what they mean. In the case that you will see now, the whole understanding of space is distorted, as a result of the horrific memories.

We knew that the corridor this man describes was linear and long, as we had it described by other witnesses, and we also had satellite images from which we could derive the rough architecture of the prison. But because he was tortured while experiencing that space, he remembered it as if it was closing down on him. It became circular, and there was no exit. Even though we modeled it and it looked absurd as an architectural layout, he was convinced that it looked exactly as he described it. So instead of understanding this just as an error, we understand this as evidence that there is trauma there. If you think of memory itself as a material that captures information in the same way that film captures light and becomes photographic evidence of a certain moment, memory acts in the same way. What it captures is not just clean information though, but it is always mediated through the



3-D modeling with the help of a witness

experience and the emotional dimension of it.

I will now pass the mic to Eyal, who will introduce some more projects.

Eyal Weizman (EW) From the perspective of Forensic Architecture, I think we really understand what Junya initially said. In Israel, we experience increasingly pressure on cultural institutions, and censorship in the art. I'm surprised – although perhaps I shouldn't be – to hear that this is also the situation here. I know that Shinzo Abe and Benjamin Netanyahu have a quite close relationship, so I guess that some of those techniques are being shared by right wing populist leaders around the world. One thing that is absolutely essential to understand in this context is that, the minute there is cultural censorship, that means also that the sphere of art and culture is a dangerous field for politics. I think the possibility to actually speak back to power from the position of an artist, an architect, a coder, a sound artist, etc. is very important. Mobilize the arts, mobilize the sensibility that we have as aesthetic practitioners, and mobilize the cultural institutions that we have, in order to speak back to power. We need to do that by developing a conversation that is international, across borders, and that knows how to do it.

What we show you here is how techniques that are born with the help of image practitioners – editors, sound artists, filmmakers, architects, etc. – can actually open up

Eyal Weizman (Forensic Architecture)

human rights cases in a way that previously were not opened up. The human rights report that Christina showed before is basically text. It's page after page of testimonies, and very few people read it. I think the marriage of social movements, human rights organizations, civil society groups, and the arts, is essential in that it is something where I think in the next decade at least some artistic practice should be in that respect. I wanted to show how the interaction with power, the way in which our work draws responses from governments, is undertaken, because indeed one of the biggest challenges of the present is what we call the environment of post-proof, which is very much an Internet environment. It's an environment that inhabits use in a manipulative way, that inhabits photography in a manipulative way, and it needs an answer that comes from within artistic and photographic practice. I'll give you a very simple example.

Investigation 4: Chemical Attacks in Al Lataminah

You know that a bomb is not only a kinetic force on a site. This is a bombing that happened in Syria, and perhaps it is the most important, the most discussed bombing in the entire Syrian civil war. One bomb, one cloud. Christina showed you hundreds of bomb clouds before, but this one is the most discussed bomb cloud in the Syrian civil war, because the allegation was that this was a chemical bomb, and if it was, and Russia and Syria supported Assad in poisoning his own people with chemical weapons, there is a certain line that has been crossed. A bomb is not only something that happens on the ground, but it is also a media event. The minute a bomb hits the ground, smartphones in the area are switched off, people record, people upload, and then there is a Twitter debate, and after the Twitter debate there is perhaps a journalistic debate about it, and then perhaps an international debate by human rights organizations and the UN. So a bomb transfers energy from kinetic force into digital force, and into existing as a disturbance in the mediasphere.

Here is one example. In order to contribute something relatively modest to the question of whether this is a chemical bomb or not, we did something very technical. We created a 3-D model of the crater so that engineers could measure it. We did that by combining photographs in a process called photogrammetry, and that became the Human Rights Watch basis for the analysis that concluded that it was in fact a sarin gas that was

dropped in Khan Sheikhoun.

A few months later, another bomb was dropped at a site in Al-Lataminah, and again the allegations were that this was a chemical strike. So I said, okay, from here we move into the diplomatic and the mediasphere. This is a Russian media channel, very much a propaganda channel, and to call it even a "news channel" is a great compliment. Here we have the Russian military explain that the crater – the same crater that we have modeled as you can see here – just doesn't fit the kind of ammunition that they admit they have sold to the Syrians. They say they sold the Syrians these weapons, but that crater is just not big enough for it. And as they try to show that the size of this bomb cannot create this kind of crater, they provide a gift that open-source investigators have been looking for for months. This image, spotted by our collaborators Bellingcat [1], finally reveals the plan of this bomb. An amazing gift, provided to us courtesy of the Russian military, with dimensions and sizes of the bomb. So what we can do here is model that bomb in 3-D, and then start looking around the Internet for all sorts of bits and pieces that people filmed on the ground and uploaded.

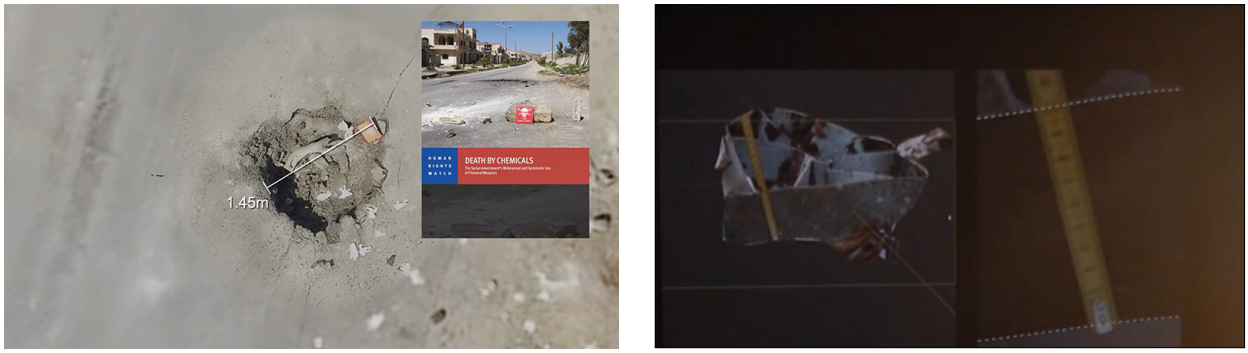
No piece of evidence, and no investigation is undertaken by one organization alone. Every investigation is a set of relations. Every investigation is evidence for what has happened, and it evidences the kind of solidarity that exists between people on the ground filming the cloud, people filming the pieces after it happened, and here, the Russians – providing us with information – and other practitioners on the ground. So what we could do here is take these crumbed bits of metal and, using an open-source software called "Blender," one of our analysts, Nick Masterton, disentangled those elements, like an archaeologist who builds an amphora or a clay pot from what is called diagnostic shards. It's enough to have one shard with a radius on it to establish the radius of the bomb. And all those pieces fit precisely that drawing of what the Russians admitted was a sarin bomb that they have provided to the Syrians. In order to refute that crater, they've given us the evidence with which we could now look and study the ongoing investigation.

You need to understand that forensics is not simply a debate about what happened. It's not simply the work of historians, and when we do forensics of conflict zones, it's not simply a matter for passing a moral kind of judgment. It is indeed a part of warfare, and the debate in the public sphere about what is happening in the battlefield, is a continuation of the battlefield itself.

When a year later, two yellow canisters – most likely chlorine canisters – were dropped onto a rooftop in a suburb of Damascus, the Internet lit up once again. Images of those were posted by rebels on the ground, after dozens of women and children were suffocated by a toxic substance, and that realization immediately determined the continuation of the war. The Syrian army was so worried about evidence falling into international hands, that they pushed their army and occupied the area that they had previously bombed. So they bombed an area that was outside of their control – the rebels controlled the ground – and a day after that bombing, they went in and put a cordon all around the site.

The cordon is to stop any investigator coming in. You need to understand that every counter-investigation that we do is based around techniques and attempts. We need to attempt to get through the yellow police tape that is put up whenever there is a crime. It's is a line that is created by power, and only agents of the state – police, secret service, etc. – can cross it. In this case, only Russian journalists could access it, and they said it was not really a chemical strike, but it was fake. In order to investigate that claim, we needed to look at all images that existed of the site in order to measure it and see what the evidence itself shows.

What do we see on the architecture, and on the surface of the ammunition, that could tell us that the Russian media images are incorrect? We see some fractures that



Left | Site of a sarin gas bombing

Right | 3-D model of the bomb

support the theory that this has been dropped from the air. There are only two options. If these canisters came from the air, they were brought to the site by Syrians, because Syria controls the sky. If they came via the ground, as the Russians and Syrians claim, it was a fake, false flag attack. So, effectively, we need to find signs of gravity in the image, and we need to look very carefully at the site. For example, here we see a crumbled fence, but when we open it, it is likely that it stood up there and was taken down by the bomb. We can also see other elements in the rubble, such as this harness, and if you look very carefully, you can see things that the media itself did not intend for you to see.

We are working here with Russian images, and proving the case against what they try to show us. They said it's fake, but in the background we see things like this harness, that show that this piece of ammunition was actually dropped from the air.

To finish, we want to show you how sometimes the surface of a canister itself, the surface of a piece of metal, can be considered like a photograph. Let's look at the surface as a medium of inscription. We take multiple images and put them onto a 3-D object, and now we can look very carefully at what the photograph that is the surface of the image can tell

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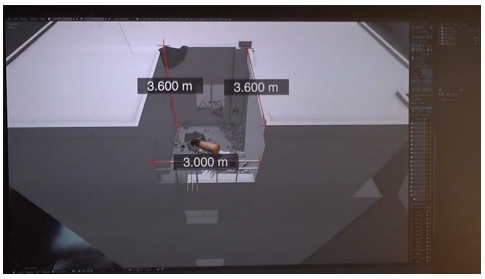
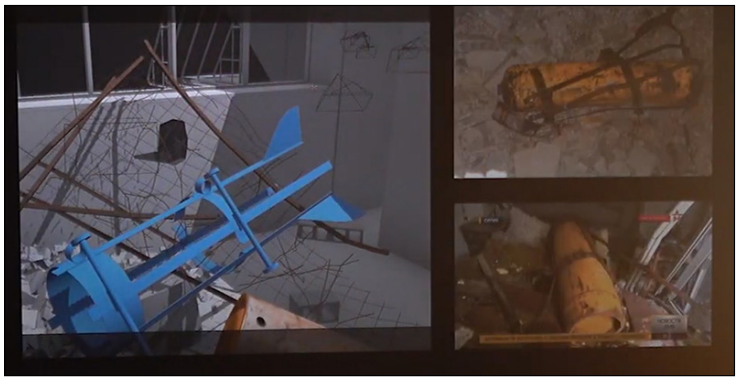




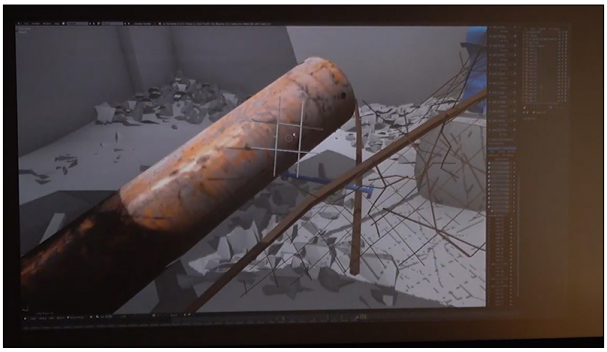
Top left | Russian journalist reporting from the site

Bottom left | Computer-generated 3-D model of the bombing site

Right | Harness and 3-D model indicating that the bomb was dropped from the sky

us. If we read the surface of this canister as a photograph, the charring at the top tells us that there was a small explosive device, and we can confirm with other photographs on the Internet of chemical strikes that they do have this charring at the top. We also see deformation, which supports a gravitational fall. Remember, we want to know whether it was dropped from the air. Very importantly, we can see a very interesting element: a grid that is imprinted on it. Again, it's a "photographic" process by which the grid of the fence that we know had been standing up there is now etched into the surface of that image. Space, object and surface are parts of a photographic process that becomes highly political.

But we can see another thing that is rather disturbing. We can see signs of drainage, and as we know about chemical strikes, there is condensation and draining, signs of which are visible as they are again etched into the surface. We know that water flows downwards, but very strangely, in this case the traces point upwards, so what we figured out is that this canister has been rotated. To recapitulate, we do realize that the canister came from the air. We know that it took the fence down with it. And we know that it was a chemical weapon that was used by the Syrians. But we also know that someone on the ground touched the evidence after the event. The evidence has been dealt with, and that requires that we are very suspicious about what we see, because for all sides those bits of evidence, how they were photographed, and what claims are being made with them, are highly political. In war, photographing evidence is kind of a direct intervention into the logic of war.



Left | Grid-shaped imprint on the canister

Right | The canister was turned around by someone

Investigation 5: Triple-Chaser

There is one other very important project to show you. As we explained before, we use artistic sensibility to intervene in politics and law, and we use also art spaces to show our work. But sometimes – and this happened in fact only once in our life – those worlds collide. That was when we were invited to the Whitney Biennial this year, where they asked us to show another piece of work on police violence. We agreed, but then we realized that there was a controversy erupting. The deputy head of the Whitney Museum Board of Directors was exposed to be an arms dealer who is mainly trading in tear gas, and still being in a chemical warfare kind of environment really disturbed us, so what we eventually did was something very cheeky. We used the exhibition at the Whitney Museum to investigate the board member. In the museum, we did a work aimed to expose his business, and that was part of a major political mobilization by organizations – mainly one called "Decolonize This Place" – that put pressure on the Whitney Museum on that issue.

I also remembered that I had a personal account with the vice chair of the board, a man called Warren Kanders. On this beautiful day in the West Bank, there was a demonstration. What you see here in the foreground are Israeli soldiers with a group of

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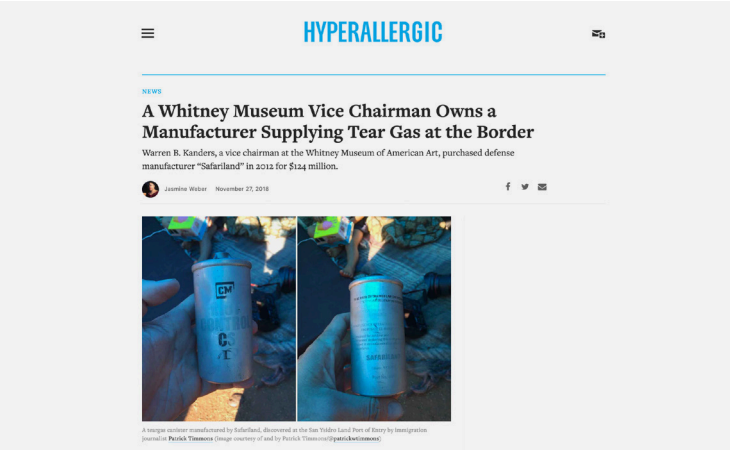
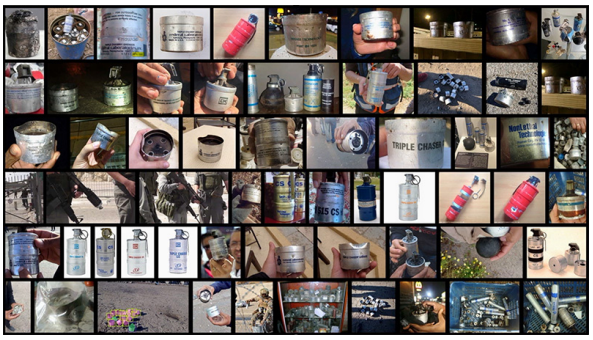


Jasmine Weber "A Whitney Museum Vice Chairman Owns a Manufacturer Supplying Tear Gas at the Border" (Hyperallergic, November 27, 2018)

Palestinians trying to cross into the road, as there was something behind the road that we needed to get to. The little cloud that you see on this perfect day is a tear gas cloud, because the Israeli soldiers would fire tear gas so we couldn't get there.

At some point, we tried to run toward them, and the commander looked at me and told one of his soldiers to fire. What they do is, they fire tear gas not at an angle, but sometimes they fire it directly at you in order to keep you away. I was running with a young woman right next to me, and the tear gas injured her head. As I realized later, it was in fact the same ammunition that was manufactured by the man whose money enabled our exhibition at the Whitney Biennale.

So what we tried to do was to train machine vision classifiers to find this ammunition online, because we wanted to know where in the world this manufacturer is selling their tear gas. If it were guns or tanks or bombs, it would be listed by the state department because they have to give permission for that. But you don't need that for police equipment, and you can only find those things online, which is a huge field. What we increasingly see is that there are just too many images online for us to analyze, so we needed a little bit of help from our algorithmic friends, which is to say, train machine vision to find those ammunitions. Now how do you teach a machine to see? It is analogous but not the same as teaching a child to see. You tell a child, "This is a train," "This is another train," "This one is different but it still is a train," "This is a train, but from a different angle," etc., and after several hundred times, the child as well as the computer vision algorithm finally



Left | Israeli soldiers and Palestinian citizens at a demonstration at the West Bank

Right | Images of Triple-Chaser grenades on the Internet, Forensic Architecture & Praxis Films Triple-Chaser 2019

recognize what it is. So you need to annotate it, you say "This is a Triple-Chaser (tear gas), and this is also a Triple-Chaser, and this here is one too, and this one, and this one…" They are each seen from a different angle, have a slightly different texture, and seem to be a little bit different, and usually you need about ten thousand of those images to get the computer to understand what it is, but we only had 280.

So we initially appealed to activists on the ground. A man (who prefers to remain anonymous) in Tijuana on the southern border of the USA, a place near San Diego where American border guards were teargassing families of migrants trying to cross the border, found ammunition and sent it to us. So you see, you sometimes need both connections on the ground with activists and technology to produce that kind of effect.

This is a photo of tear gas ammunition taken by a friend of mine, a Palestinian artist called Emily Jacir. This is at her home, an art residency that we think is probably the most teargassed art residency in the world. She took this thing from the Israelis, and that allowed us to build a model. Because we didn't have enough photographs, what we needed to do was to create fake, computer-simulated images of that ammunition, and tell the computer that these are tear gas canisters, in order for it to find real ones. So fake images help us find real ones.

Here is the beginning of the work we did at the Whitney Biennale.

An artist called Laura Poitras, who is also a great filmmaker and won an Oscar for her film on Edward Snowden, came to our office, and saw all those technical drawings that

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Photo of a "Triple-Chaser" tear-gas bomb, taken by Emily Jacir

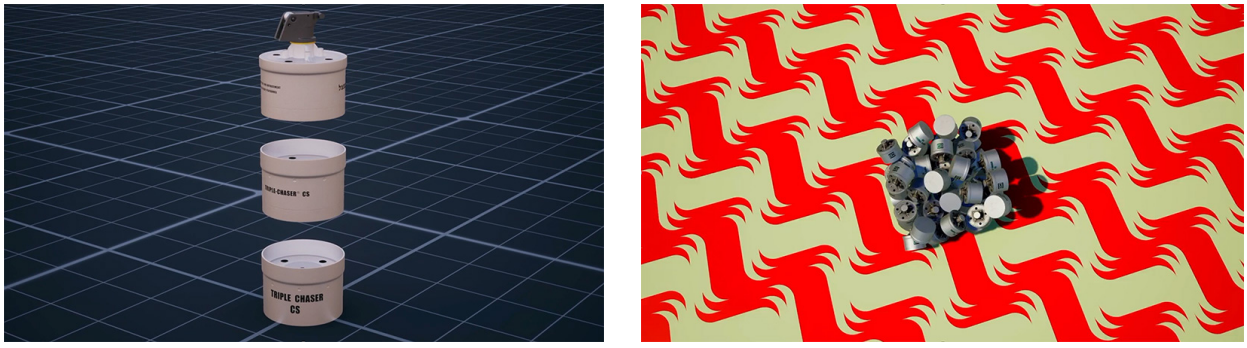
allow the computer to pick up canisters against randomized backgrounds. She then decided to do the film, narrated by David Byrne from Talking Heads, so we were quite surprised to find our work in such an artistic context.

Regarding the video that you are going to see now, it will be a strobic sequence, and even though it has passed the medical test, just to be sure, I will ask anyone here who think they may have photosensitivity to please avoid looking at it if you know you have a tendency to epileptic reaction.

This is a sequence of images that were part of the video that we showed at the Whitney, but that were simultaneously also designed for the computer to understand, so it's a film for people and for the algorithm at the same time. The randomized backgrounds are not there because we think they are pretty – although we do think they are – but they are there because we needed not photorealistic backgrounds but random patterns, in order for the algorithm to pick up the shape of the ammunition from the ground.

So we set it free, let it run wild on the Internet, also according to keywords, and the algorithm comes back and finds images, and would render a certain percentage of how confident it is that these are Triple-Chaser. As you see, the level of confidence is relatively low, and it always needs a human researcher to work with.

The Internet is changing so much recently. Christina and I will fly to Hong Kong tomorrow, and the entire media ecology around the conflict there is extremely different from Syria. In Syria you may have a dozen clips around an incident, while in Hong Kong you



"Triple-Chaser"

would have four thousand. If in Syria, each clip is twenty to forty seconds long, in Hong Kong they are hours long. The idea of human vision, what we have done in the first project in Rafah that Christina has shown – to even think that we can do it again now is completely absurd. We need to find ways to work together with algorithmic systems, and we also need to understand that the very computational tools that enable AI and machine vision are a problem in itself. In another work that is now in process, using those synthetic models, we are able to introspect the algorithms, and I think that increasingly our future as an organization is to understand that human rights can be violated on the ground, like in Hong Kong, Syria or Palestine, but human rights are increasingly violated also in mathematical systems that are opaque and inaccessible to us. We need to open that terrain also to human rights analysis, and when we use any new technology, we try to use it both to increase accountability on the ground, and to introspect it.

Investigation 6: Mare Clausum: The Sea Watch vs Libyan Coast Guard Case

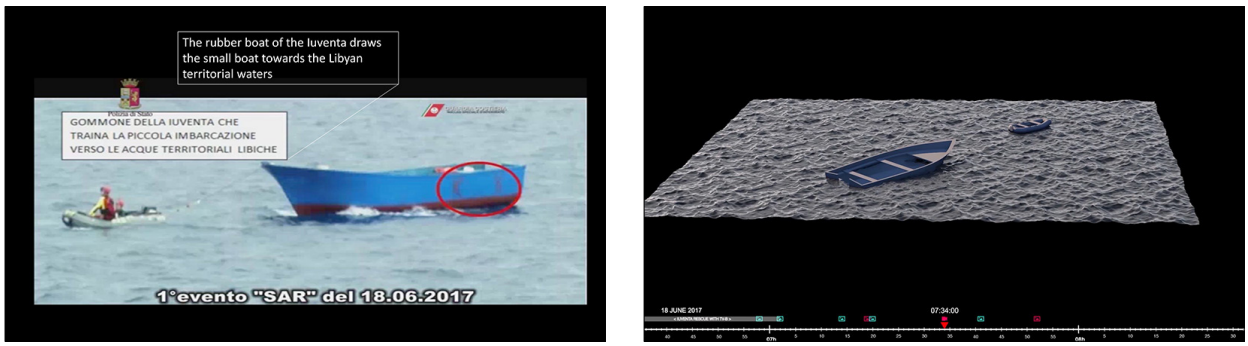
Very short, the last project is about migration, a very important issue in Europe as you know. I know it's a very important issue also here. It is really something that I think as citizens, as artists, as civil society activists, we must absolutely stand for. Europe does not want migrants from anywhere in the world, especially not from Africa. And they do not mind that people drown in the Mediterranean, only so that people do not come to Europe, and they increase the risks for migrants in the Mediterranean. They do so by criminalizing, by taking out of the Mediterranean the best people that could rescue migrants – NGOs, young people from Europe in improvised boats that are doing great work in rescuing people in distress. They claim that the NGO people are actually people smugglers. This slide was shown by an Italian prosecutor who is saying that the bigger boat here, which is dragged by a little boat of an NGO, is a boat on which migrants were rescued, and that they are taking it back to Libya. Now if they are indeed taking it back to Libya, one could build an argument that they are helping people smugglers. But what in this image shows you in which direction they go? Remember, this is evidence that criminalizes the best people in Europe that save people at sea. On the basis of that evidence, the boat has been confiscated, and is not doing what it needs to do, which is rescue people in the Mediterranean.

Now we are trying together with an affiliated group, Forensic Oceanography (Charles Heller and Lorenzo Pezzani), to determine in which direction the boat is going. Does it go to Africa, or does it go to Europe? The only indicator of direction are the waves. If you track the waves, you may be able to figure out the direction, for which you need to build a very precise model of the water. You need to study the movement of the water, look very carefully at the way the sun reflects from it, the way the tide goes, the way the wind goes, and then compare it to the available data on the direction of the wind.

If you put these together, you see that the boat is going north, which in the Mediterranean means toward Europe. So the Italian prosecutor was lying. You think it's enough? No, because even if they're lying, obviously they can get away with it, because what is important is that technical evidence cannot stand by itself. Technical evidence needs organizations. It needs support, mobilization, activism. An image can only be the beginning of a set of action like that. The legal process is only as good as the political process it is part of.

[Note]

1 Investigative journalistic organization specializing in fact checking and open-source intelligence https://www.belligcat.com



Left | Photo of an NGO's rescue boat towing a boat that was used by immigrants

Right | Computer-generated 3-D model of the water surface

Session 2

The CivicTech Community g0v and Their Use of Open Data as a Tool for Citizen Empowerment

Bess Lee [g0v]

Moderators | Kazuya Kawasaki, Junya Yamamine

Bess Lee (BL)　I am honored to be invited by Art Council Tokyo to come here. Today I will share with you what g0v is, what g0v does, and how g0v affects the Taiwanese society.

Before I start, I want to explain that g0v is a multicentric community. What I will talk about today only represents my thoughts but not the g0v community in general, because g0v does not have a single representative.

The name of this community is pronounced "gov-zero." Substituting the "o" in "gov" with a zero, "g0v" not only stands for rethinking the role of the government from the bottom up, but it also represents the digital native generation's world view of 0 and 1.

Bess Lee (g0v)

I studied Chinese literature at college, and while I can't do coding, I can type and edit web pages. Most of my work is to help the g0v jothon community by organizing events, such as the g0v Hackathon, g0v Grant, and g0v Summit 2018.

I am an introvert person, but fortunately, I had access to the Internet since I was a child, which made it easier for me to interact with people. I have been part of the online community since elementary school, and I know how to work online with people I have never met. Nowadays, the online community may be important, but for a community like g0v, real connections between people are even more important.

I want to tell you a story first. In 2011, I used to work in an art village called Bamboo Curtain Studio, where my colleagues and I invited artists to work on environmental art projects. There was a creek without a name, and in order to remind local residents of it, we invited artists to come to the local communities and schools, and create works with residents and students. A few years later, the creek was given the name Plum Tree Creek, but unfortunately, even though it had a name now, it could not escape its fate. In 2015, the midstream of Plum Tree Creek was suddenly destroyed. We didn't know what happened, and only learned about it after the fact, so we didn't have time to stop the destruction.

This incident hurt me and my colleagues deeply, but I couldn't find an answer until I came to g0v jothon. I thought that we might be able to use the collaboration model of the g0v community as a way to change things, so I encouraged my colleagues at Bamboo Curtain Studio to develop the g0v Grant.

This March, they proposed the River Watcher map platform to collect open data for river engineering across Taiwan. As you see, there is a lot of money put into Taiwan and river engineering. So now we have this platform where we can invite people who care about Taiwan's rivers, to join in. The tracking of open data, and the collaboration of the river community, allow people to be warned before rivers are destroyed.

When artists express something, sometimes they are very emotional, while engineers think rationally. For example, we are sad when we see rivers being destroyed. What can we do to change the situation? This is a very special case. If the artist can act before the tragedy happens, what can the artist do?

Self-initiative efforts to build an open and transparent civic community based on open-source data

Before introducing the work of g0v, let me briefly explain what open-source means. It means that a code is made public on the Internet, and available for anyone to use or/and modify. Before making it public, you need of course to clearly define the terms of license in order to prevent unauthorized use. One of the characteristics of open-source data is that it is released early, and released often. After the developer releases the source code, he or she can update it or accept updates contributed by others.

The g0v community developed based on this open-source model. It is transparent and open, with clear mandates. Results are shared. If you want to encourage people to contribute to a project, you first need to make the full picture of your project public, and share the results. If your project is closed, it will naturally be difficult to attract contributors.

In the g0v community, we like to say "Don't ask why nobody is doing this, admit that you are nobody". In addition to highlighting the importance of practical work, this slogan is also about open-source. If you feel that a code is not good, you can write a new one. This is why g0v wants to do things starting from zero.

I work for g0v jothon, one of the g0v community's task forces. The team consists of six

5 Years Anniversary Hackath26n (9/16/2017) / Photo by g0v.tw (CC BY 2.0)

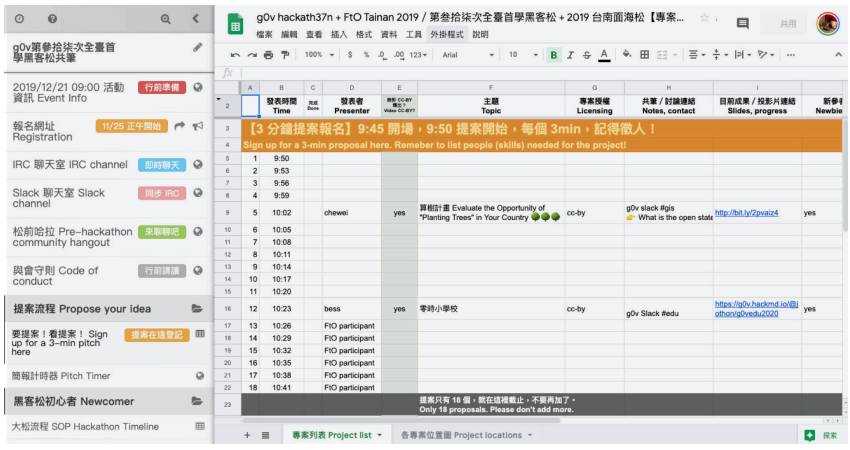
volunteers, two full-time and one part-time staff member. Our main mission is the implementation of g0v hackathons, g0v infrastructure, and the g0v CivicTech Prototype Grant.

The g0v community was established on October 24, 2012. Why on 10/24? Because 1,024 is two to the power of ten. Such are the romantic ideas of hackers.

The first g0v Hackathon took place in December 2012. Since then, two people have been hosting hackathons, starting with finding venues and sponsors, and organizing food. By 2014, more volunteers had joined, and they officially became the g0v jothon task force. In 2016, g0v jothon commenced operations with full-time staff, and I joined at the end of 2017.

g0v jothon's full-time staff work with many different partners, and invite all kinds of people to join the hackathons – not only engineers, but also lawyers, teachers, designers, government employees, etc. The point is, if you want to make a project better, you need to engage in different thinking. The g0v Hackathon is not a contest. If you have an idea, you can come with a proposal. If you don't, you can help others complete their own proposal. g0v jothon has been hosting hackathons every two months since 2012, so by December 2019 we did a total of 37 hackathons.

Registration for a g0v Hackathon opens two weeks before the event. Anyone can join for free and register their proposal in the co-writing system Hackfoldr. In the morning of the event, every participant has three minutes to pitch. We have a Google spreadsheet to



Hackfoldr for the g0v Hackckath37n

which everyone can add their own projects.

As long as you have a pitch, you will be a kenzu. This is the person in charge of a project, who has the right to decide everything about it. After about 15 groups are done with their pitch, you can join a kenzu and work with him or her if you are interested in the respective project. The literal meaning of "kenzu" his "hole owner," which in this case means "owner of a project." It is a person who spots a "hole in the ground," has an idea as to how to fill it, and then starts looking for others who want to help. At the hackathon venue, kenzu wear badges to be easily identified.

Hacking hours continue until 5pm. In the closing presentation, everyone can share the progress they have made during the day. This is the tradition of the open-source community. Release early, and release often, because if your work progress is updated frequently, the project can be promoted faster.

In 2016, g0v jothon launched a new project called g0v CivicTech Prototype Grant. As most g0v contributors are volunteers who work for free, many projects may disappear after a hackathon. According to our statistics, more than 550 proposals have been made at g0v Hackathons so far, but not many of them still continue today.

In order to get resources for the g0v project, g0v jothon raised funds from private companies in Taiwan, and worked with the media to start the g0v CivicTech

A kenzu and members / Photo by g0v.tw (CC BY 2.0)

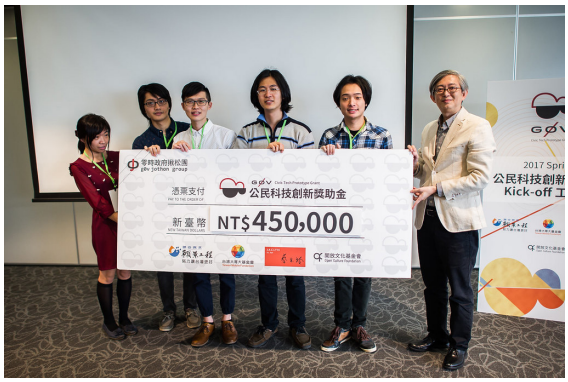
Prototype Grant. This is a competition, for which g0v contributors submit their plans on our public proposal webpage. In a selection process of two months, five groups are chosen each year. Each group receives NTD $300,000-500,000, as well as media and consultant resources, to help them expand into a full-fledged project team. Let me introduce some of our previous grants.

Projects inspired by the CivicTech Prototype Grant

Cofacts is a bot system that helps you to fact check information reposted on the LINE app. There is a database behind this robot, and each message has an editor to check. This database collecting rumors from across Taiwan is released as CC0, which means bypassing copyright.

Through Taiwan's corporate data and pollution chase records, the Open Corporate Group shows which companies are destroying Taiwan's environment.

Voter Guide is Taiwan's first website to organize information on elections in Taiwan. The website organizes candidate proposals and political contributions from councilors, city mayors, legislators and presidents, so you can get a clear picture before casting your vote. In Taiwan, you normally obtain data about the candidates on paper only, two weeks before the election, which is too late to let everyone know everything about the candidates. We publish information about three months prior to an election, so people can



Left | Cofacts was awarded of the g0v CivicTech Prototype Grant.
Right | Voter Guide

know about the candidates much earlier.

Flataiwan can be used on a mobile phone, to know the conditions of roads, and report the data to the government.

Taiwan God Hand helps you make your own artificial limb at little cost.

The g0v community was established at a time when some engineers were dissatisfied with the government's economic policies. The government had launched an advertisement emphasizing that economic policies were difficult, and telling people to wait. But isn't it the job of the government to explain its policies? So those angry engineers downloaded and graphically visualized the government's annual budget book. This was the first g0v project.

In addition to showing the budget graphically, they also did a special calculation to tell people how many cups of bubble tea it could buy, because the average person has no feeling for such large amounts of money. The visualization of the central budget was actually a competition work. After winning, they used the prize money to hold the first g0v Hackathon.

The Sunflower Movement and g0v

After the g0v community was established, a number of events caused a gradual change of Taiwan. One of the most important occasions was the 2014 Sunflower Movement. At that time, some legislators attempted to pass the Taiwan-China trade agreement, but two days later, protesters broke into the Legislative Yuan at night, and occupied it.

The Sunflower Movement was joined by many organizations and individuals, including also g0v contributors. Why did they join? Since 2013, there have been many large-scale protests in Taiwan, but the media would not report on them. In order to let more people know what is going on, some g0v contributors began to discuss how to set up Internet and live broadcast equipment at protests. In 2014, g0v contributors eventually set up Internet and live broadcast equipment to document the Sunflower Movement. At that time, citizens may not have been able to learn details about those protests from the news, but everything could be clearly seen via the g0v live broadcast. I was one of those people waiting for the live broadcasts.

In addition, the g0v contributors set up the Sunflower Movement Hackfoldr. Users

can also access g0v's live broadcasts, news, material requirements, etc. All information related to the movement can be found here. This model also inspired the Umbrella Movement in Hong Kong.

The use of coworking tools for administrative purposes

In 2016, after the new government took office, they recognized the importance of an open government, and invited Audrey Tang, one of the g0v contributors, to become Taiwan's first digital minister. In these three years, Audrey Tang introduced many aspects of hacking culture to the Taiwanese government, such as Hackfoldr, Pol.is and Sli.do, as well as transcripts, live broadcasts and hackathons. She established the Participation Officers and the public policy online participation platform, to facilitate discussions between the government and citizens. I don't want to talk too much about her, because she may already be quite famous in Japan.

vTaiwan was launched in 2014, when minister Jacqueline Tsai joined a g0v Hackathon and had a pitch, hoping to establish a platform for discussing how to formulate or modify regulations based on the mutual exchange of opinions. She hoped that the output would meet the expectations of various stakeholders. It was also close to the actual content of the regulations. They discussed Uber, crowdfunding, and drone management among

Left | g0v contributors outside the Legislative Yuan / Photo by g0v.tw (CC BY 2.0)
Right | Audrey Tang / CC BY 4.0 Camille McOuat @ Liberation.fr

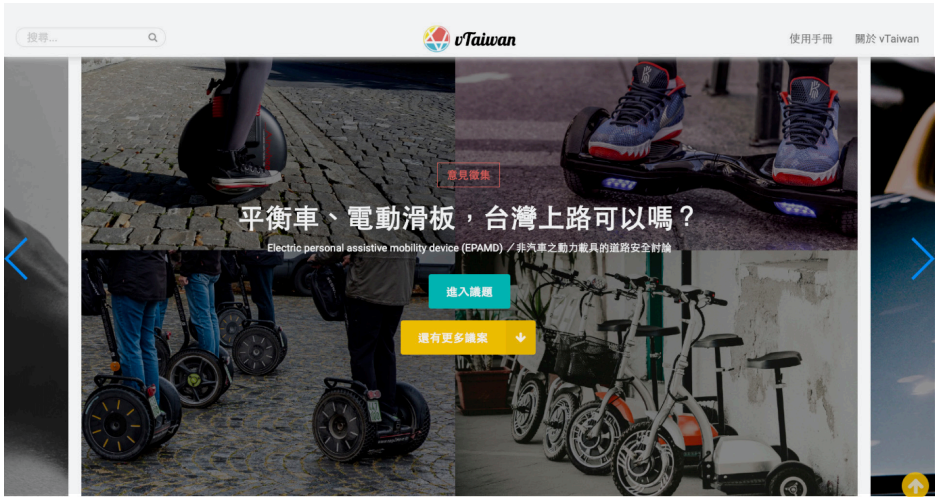
others. Many innovative companies require adjustments of laws and regulations, which is why these kinds of platforms appear.

g0v jothon runs hackathons every two months. For some people, this means too few occasions to meet, so there are many different projects to host smaller hackathons. There are some teams that hold smaller hackathons on a regular basis, such as Cofact, vTaiwan, Disfactory, Rentea, 2020 Voting Guide, and Facing The Ocean Hackathon for example, which are held with hackers from Japan, Korea and Hong Kong.

The Facing The Ocean Hackathon is another activity organized by three g0v contributors. It is difficult and time-consuming to establish international communication, and that's why there is such a task force. They are now helping g0v to get involved in Code For All, a worldwide community for civic tech. There is Code For All in Japan, so we have an international Code For All task force.

The Facing The Ocean Hackathon is organized by hackers from Taiwan, Japan, South Korea, and Hong Kong, who initially met at other international forums. The first Facing The Ocean Hackathon was in Okinawa, Japan, with 40 civic hackers participating. The people in Okinawa were quite friendly, and even performed on the day of the event.

The g0v community is very big. In our slack channel we have 5,000 participants. So how can you work with this many people online?



vTaiwan

The tools of the g0v community are a very important part, because when working with so many people, you need to know how to use tools and how to manage processes. These are key issues. Our commonly used tools include Google Office, Hackfoldr, HackMD, as well as transcripts and live broadcasts. We also discuss processes, and document those discussions, to help people who are not involved understand the context of the event.

Hackfoldr is a co-writing system written by g0v contributors. Everyone can edit the list on the left. Any link can be placed on the list, so it is very suitable for collecting information. The g0v community often uses Hackfoldr to organize the necessary links related to events or incidents.

Later, there was a team that developed another co-writing system called HackMD. The system is similar to the concept of Hackfoldr, but they became a company, which allows the system to operate stably, and add new features. Hackfoldr has no team to maintain it, so it can easily crash.

On the HackMD front page, everyone can see all the documents that we share on HackMD. We often use HackMD for sharing documents with each other. You can type on the left, the black page, and the resource will then appear on the white page on the right. Now some people may be afraid when seeing a black page, because they don't know how to code the white page, so they don't know how to use the black page either. But I think it's

HackMD

very easy to use.

We also use the co-writing system at the g0v Summit 2018. It's a very big conference with about 40 sessions. For example, I exchange notes with other contributors about Taiwanese universities supporting Hong Kong students, so that students in Hong Kong can find information on Taiwanese universities faster.

Regarding project management, we often use trello in particular, which can be set to be public, so the job list of g0v jothon is made public. We really like forms, so we use Google Office very often. But also live broadcasts. The g0v community has a group of contributors dedicated to live broadcasts. They bring the necessary Internet and live broadcast tools for the live streaming of g0v events. The g0v community also has several contributors who are good at taking care of food. Feeding contributors is a very important aspect of the hackathons, because good food gives g0v contributors more energy to work. We work for a whole day starting at 9 in the morning, so we need a lot of food.

Speaking of contributors, according to g0v jothon's statistics on participants in the g0v Hackathon, usually 60% of them are engineers, and 40% non-engineers. Engineers can be all kinds of programmers you can imagine, while "non-engineers" include project managers, designers, government employees, NGO workers, teachers, and students – basically all kinds of citizens.

Left | Live streaming setup at a g0v event / Photo by g0v.tw (CC BY 2.0)

Right | Food service at a g0v event / Photo by g0v.tw (CC BY 2.0)

In order for everyone to get to know each other at a g0v Hackathon or other event, we have two ways: skill stickers and self-introduction. Skill stickers, designed by a g0v contributor, indicate various skills and identities. Contributors can pick a number of stickers that apply to them, and stick them on their name badge to let others know about them. We have stickers like “newbie” or “expert,” but also “dig” and “fill,” because as I mentioned, we have a lot of holes that we need to dig and fill.

Self-introduction is of course also very important. After the g0v Hackathon pitch is over, we ask everyone to introduce themselves by their names along with three keywords. If I were to introduce myself, I would say: Bess, hackathon, grants, summit.

From a decentralized to a multicentric community

Finally, I want to talk about changes in the g0v community. Recently, several g0v founders and contributors, including myself, came together to discuss the g0v manifesto. This defines the core values of g0v, including who we are, where we come from, our multicentric operation, open results, etc. At this point, we eventually discussed the issue of decentralization.

The g0v community used to be a decentralized community. As you can see, we have a lot of different projects and different teams in this community. Decentralized means

Skill stickers Ver.5 / Design by MOON C.

that any member can represent the g0v community. However, some people began to think that such declarations may be dangerous, because we have no way to deny other members' statements as being representative. Therefore, "decentralized" became "multicentric" this year, so the g0v community can finally confirm that some members decide things in the community. g0v jothon is one of them.

I introduced a number of projects and events in our community, so everyone can make up their own ideas about the community. Our core concept is, "Don't ask why nobody is doing this, admit that you are nobody." So if you want to do something, you are invited to come to our events, or join the community. Thank you.

Kazuya Kawasaki (KK)____ Assuming that participation is based on the idea of empowerment through open data and technology, how was it possible for g0v to come up with solutions for social issues? How do you maintain your activities? And what measures do you take to ensure the sustained openness and transparency of your work?

BL_____ I think these are very difficult issues for us, thinking about how we can stand up with this community, because people come and go. Anyone is free to join or leave the community, so how can we push people to do something with us? We did find a lot of methods to push people, such as the g0v Hackathons and the CivicTech Prototype Grant, and we continue to mention our projects and how they can have an impact in Taiwan. If there is a significant impact, some projects may be closed, so we keep mentioning the impact of our projects every year.

I'm seeing vTaiwan as a citizen version of a discussion platform, while Audrey Tang represents the government version. So we have two versions of discussion platforms. In my observation, I think the government version is quite effective, because Audrey Tang as a minister has the power to push people. vTaiwan is not owned by the government, and people can just come and go, so the impact is less big. That's still a problem for us, but I don't have an answer at this point.

Anyway, the key is open-source. You can do a lot of things with open-source, and leave the results on the Internet, so if there is someone who wants to continue with a project at a later point, they can use that.

As you may know, last year's election results were not very good for us, so after the election, the kenzu who launched Voter Guide gave up. But the project is all open-source, so there were other people that picked it up and continued.

Session 3

Methodology for Problem-raising: From the fields of art, design and architecture to communities, cities and environments

Ai Hasegawa / Kazuya Kawasaki / Taichi Sunayama

| Moderator | Junya Yamamine

Junya Yamamine (JY)　In her projects, Ai Hasegawa focuses on, and visualizes from a broad perspective various issues related to minorities, such as biased views of the police towards black people, and the ethical discussion revolving about same-sex couples raising children for example.

Taichi Sunayama and Kazuya Kawasaki are the authors/editors of the book *Speculations* (BNN, 2019), in which they explain about the field of Speculative Design as a way of raising public awareness of all kinds of problems. As the book also includes some practical examples, I would like to open this session while using it as reference as to what dynamic activities are possible in Japan, and as an orientation guide for redefining our own position therein.

First of all, may I ask you, Mr. Sunayama, to briefly sum up the previous sessions?

Taichi Sunayama (TS)　Focusing on how media technologies can assume different forms of power, depending on who uses them and how, Mr. Yamamine's account mainly

revolved around the various new issues that arise from this.

Activities like those of FA, visualizing and charging with societal power various hidden matters with the help of artists, architects and journalists who utilize technologies that were not originally designed for use as tools for journalistic work, are certainly worthy of note as one artistic movement since the 2010s.

But how are we supposed to approach such media-based art? I think the question should be how artists, or other individuals that are going to be involved with creative work in the future, will perceive the way they are directly concerned by various social issues, and what kinds of works they create in order to relate to society. In this sense, I think that the following presentation by Ms. Hasegawa will serve as a very useful reference.

Three futures as proposed through Speculative Design

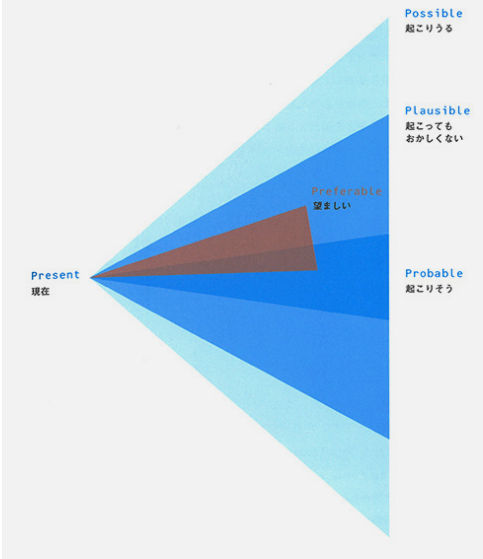
Ai Hasegawa (AI)　I am presently a project researcher at the University of Tokyo's Faculty of Engineering, and I initially studied Speculative Design in the "Design Interactions" design course of Anthony Dunne and Fiona Raby at London's Royal College of Art (RCA).

In 2013, they published the book *Speculative Everything: Design Fiction and Social*

Ai Hasegawa

Dreaming. "Social Dreaming" here reflects the slightly sci-fi like approach that characterizes this particular field. As shown in the PPPP diagram, designers normally work out services and products from their position in the present, and within the limits of what is "preferable" and "possible" in the future. The possibilities of what might happen in the future, however, are in fact much more extensive than one would think, including such highly improbable things and occurrences as Brexit or Donald Trump for example. I think the PPPP diagram is a very easy-to-understand graphic that illustrates how Speculative Design encompasses also the things that seem probable or plausible in the future.

They make A/B comparisons of their own idea of design with traditional forms of design, contrasting traditional design represented by the keywords "Affirmative," "Problem solving," "Provides answers," "For how the world is" and "Makes us buy" on the A-axis, with "Critical," "Problem finding," "Asks questions," "For how the world could be" and "Makes us think" on the B-axis. This is how Speculative Design is basically not methodized, and therefore represents the type B attitude toward design practice. From here, the authors further suggest the creation of types C and D.



PPPP diagram, taken from Anthony Dunne & Fiona Raby, *Speculative Everything: Design Fiction and Social Dreaming*, The MIT Press, 2013

For a discussion on the "why nots"

One of the projects that I did while studying Speculative Design under them is "I Wanna Deliver a Dolphin" (2011-2013). The project was inspired by the idea to become a surrogate mother for an endangered species of dolphins, which probably sounds rather dystopian to others, but I approached it as a utopian, science fiction kind of scenario.

2013, when I returned from London to Japan, was a time when Western countries were starting to acknowledge same-sex marriage. But while the topic was fiercely debated everywhere – especially around Europe – there was very little discussion on it here in Japan. There were guidelines published in 2013 that regulated the cryopreservation of single women's egg cells, as unmarried women were not able to preserve their ova up to that point. Even though it had been such a common practice in London that fashion magazines were running ads for cryopreservation, it took some more years for Japan to make this possible. If the delay was five years, this would mean that those five years marked a division between human beings that were born, and those that weren't, which raises the question who on earth is to make such serious decisions about human life. With this in mind, I looked at the list of members of the ethics committee that devised the aforementioned guidelines, and found only a single female name among the twelve members. Public commentary was only

"I Wanna Deliver a Dolphin" (2011-2013)

accepted for about two weeks, during which not much more than twenty people shared their opinions. Regardless of the fact that it is an incredibly important matter for us, the parties concerned, at the end of the day it is being decided behind closed doors by a handful of male "experts," according to their own convenience. For me, it even triggered a persecution complex of sorts, as I began to fear that the guidelines may eventually be canceled based on some hazy opinions suggesting that it was still "too early."

Meanwhile, steady progress is being made in research and development related to technologies for enabling same-sex couples to have children. Books on iPS cells, however, suggest that it is certainly feasible in technical terms, but the rather big obstacle of bioethics will probably not allow such practices – although none of them offers a clear definition of bioethics and the ethical counterarguments in this case.

This fueled my desire to discuss the matter extensively and with as many people as possible. The next idea that came to my mind was to confront people not with a verbal question along the lines of, "What are your thoughts on a future in which technology enables same-sex couples to have children?" I would rather show them pictures of how a family might look like in the future, and see how their mindsets change, the result of which is the "(Im)possible Baby" project (2015).

I got in touch with an actual lesbian couple, and explained the idea. They agreed and

The daughters celebrate their 10th birthday in "(Im)possible Baby" (2015)

shared their genetic information, based on which I calculated the likely looks and characters of their possible future children, and created "family snapshots" as faithfully as I could.

I randomly combined the genetic information of the would-be parents, created genetic data of their two would-be daughters, and used computer graphics to compose their faces based on the individual characteristics read from their respective genomes via an open SNPs database. From their supposed characters and individual features I further concluded things like their favorite foods, which is also reflected in the photographs. Any missing information was finally supplemented with median values calculated from combinations of 3-D data of the parents' faces, and photographs of them when they were children themselves.

This provided me not only with information related to their appearance, but also with DNA related to their eating habits. For example, straight-haired Mameko – resembling her mother Asako – makes a grimace when she smells coriander, reflecting a guess based on genetic information that suggests that Mameko perceives the smell of coriander like soap. The genetic information of wavy haired Powako – resembling Moriga – showed that she perceives how the smell of urine changes after eating asparagus. When asking the two mothers about this set of rather odd information, Asako confirmed that she shared the same perception. This is how the data that we started off with gradually took shape, and eventually resulted in images of a totally real looking family circle.
Now are the people that look at these photographs going to say that they don't want that family to be? To me, being against the technology seems to be like saying that the family shouldn't exist. So what I asked them to do was to engage in a discussion with me about why some people are against it.

NHK (Japan Broadcasting Corporation) made and aired a documentary in which the entire project was explained in depth. As I wanted a proper discussion, I invited Yoshimi Yashiro, a professor and researcher of bioethics at Kyoto University's Center for iPS Cell Research and Application, and Tokyo University of Agriculture professor Tomohiro Kono, whose endeavors in 2004 resulted in the birth of the mouse "Kaguya" with two mothers but no father, to share their views on the project from a bioethical perspective.
Mr. Kono expressed the opinion that, even when assuming that the technology's safety is ascertained, it cannot and must not be applied to humans, because it is beyond the scope of medicine. When further asking why this discussion triggers so much emotional protest, he

offered the suggestion that it may be because life is the true and essential nature of human beings, adding that frank human sensibility is an important criterion as well.

Mr. Yashiro, on the other hand, expressed the affirmative view that there should be nothing wrong, given that a degree of safety has been ascertained that is close to that of existing practices of artificial/external fertilization, and that the matter has been properly discussed.

About 650 viewers joined the discussion on Twitter, and I eventually collected opinions from a total of about one thousands tweets, including also quite a few questions that I hadn't expected. Most eye-opening for me were comments that pointed out the danger of going back to the principle of blood relationship.

The work went on to be exhibited in several countries, where it inspired visitors to write their comments onto paper slips, responding to the original posts that I had divided into three categories: affirmative comments (blue), negative reactions (red), and interesting neutral remarks (green). Very interesting here is also how the discussions heated up on totally different points in different countries. When we showed the work in Indonesia, we decided to have comments supplied on paper slips in order to avoid tweetstorms that may provoke some rather scary groups. Some responded to other people's comments by writing on the same slips, all of which we put together into something like a tree.

The most frequent comment, by the way, was the claim that "there is no god anyway." The curators smelled trouble and decided to put those slips up at places where they were hard to see, but nonetheless some visitors were quick-eyed enough to spot them, and replied with comments like, "Who are you to decide whether there is a god?" Being

Comments on paper slips at the exhibition in Indonesia

basically a non-religious person, I found it quite fascinating to observe how people are living in totally different realities.

Exposing the biases that lurk in technology

Next I would like to talk about "Alt-Bias Gun" (2018), a project that I conceived while working at the MIT Media Lab in Boston in 2015. I had been living in London for quite a long time, but I never really experienced the level of racial discrimination there that I experienced several times after arriving in Boston. I learned about the racism that black people are exposed to in their daily life, and that was around the time when a black friend of mine told me about the "Black Lives Matter" movement protesting against the repeated shootings of unarmed black people by the police.

Now this begs the question whether black people are really more likely to be shot, and there was in fact an experiment in which this was explored in the form of a game.

Players were confronted with randomly appearing black and white people carrying guns, and a few people carrying other things such as wallets or cell phones. They were supposed to shoot only at those who were carrying guns, and as it turned out, more players mistakenly fired at black people with no guns than at white people.

The Obama administration then introduced body cams for police officers, but those only helped clarify things after the fact. In some cases the recorded data apparently weren't even submitted to a court after a fatal shooting.

A combination of guns, governments and face authentication technology – the perfect dystopia if you ask me, so I approached the matter with the aim to work out ways of somehow making positive use of these things. The idea that I eventually came up with was that, teaching AI to recognize the faces of innocent victims may be helpful in scooping out biases.

There is a science-fiction anime titled "Psychopath" that I like a lot. Part of the story is an IT-based gun that measures the mental conditions of people standing in front of its muzzle, and tells its owner whether that person should be killed. This inspired me to look at it from the opposite direction, with the idea in mind that the gun may be fed with information on its owner's supposed biases and prejudices, and based on that, make it difficult to pull the trigger.

Another shocking experience was a video that I saw on Facebook in 2016. It showed an incident in which a black man was ordered by a police officer to stop his car and identify himself. When he was about to pull out his ID card, the policeman thought he was pulling out a gun, and fired a total of seven shots at him. The man's partner, who was in the passenger seat, streamed the aftermath of the scene via Facebook Live. The black man eventually died, and the officer got away with his resignation but no legal charges. It is utterly absurd. In the video, one can see how the officer is shouting and panicking during the entire procedure, and watching it made me feel that things certainly wouldn't have turned out that way if the officer just stopped and waited three seconds.

This is the background that inspired the "Alt-Bias Gun" project. I first collected portraits of unarmed people of color that have been killed by police officers from the Internet. Then I created a prototype of a gun that I had memorize "faces of people that are likely to be shot by American police officers because of their false biases" by way of machine learning. A solenoid-based mechanism would then lock the trigger for three seconds whenever the camera mounted onto the gun captured the face of a person that matched those characteristics. In a test run using portraits of approximately 200 victims, no sufficient usable attributes could be obtained, which is why the gun was ultimately set to block the trigger when pointed at "young, black males."

The problem that remained was how to measure biases. A separate group at the Media Lab happened to be working on a project aimed to visualize people's morals, something that is commonly known as the trolley problem. Part of this experiment is a situation in which an uncontrollable self-driving car is approaching an old man crossing the street, and test persons have to decide whether they ultimately kill the old man or their fellow passengers. By repeating several of these tests several times, the experiment graphically shows the respective person's sense of values.

I took the test to measure my own bias, and learned that, slightly different from the average person, I seem to be attaching importance to numbers of people, and tend to be somewhat indifferent toward those who don't follow rules. For my subsequent research, I was keeping this new understanding in mind.

What I found most fascinating and frightening with regard to the combination of machine learning, arms and society, were the studies they are doing in China about the

definition of "criminal facial features." The studies apparently revealed that such characteristics as a short distance between the eyes, a narrow angle of the upper corner of the triangle that connects the tip of the nose with the corners of the mouth, and a strongly curved upper lip, were often found in the faces of members of criminal groups, which I think is a questionable conclusion. I am aware of the so-called "halo effect," a cognitive bias that twists the evaluation of people as soon as they show one particularly positive characteristic. Someone who looks extraordinarily handsome certainly tends to be treated with more tolerance, so it may be true that looks play a role in our judgment of people as to whether they are criminals. In a case that actually happened in the US, there was a movement demanding the release of a convicted criminal just because he was extremely handsome. Furthermore, there has been talk about face authentication technology that even recognizes from a photograph whether that person is homosexual or heterosexual. To me, it is quite a frightening idea that anyone could be willfully outed that way.

Through this research, I arrived at a certain conclusion. There is a phenomenon called "machine bias," which refers to the reinforcement of biases that are inherently hidden in systems and data. This is manifested most prominently in the strong bias against black people in the US when it comes to recidivism. There is a system in the US where judges base the prison terms for convicted criminals on algorithmic calculations of the respective

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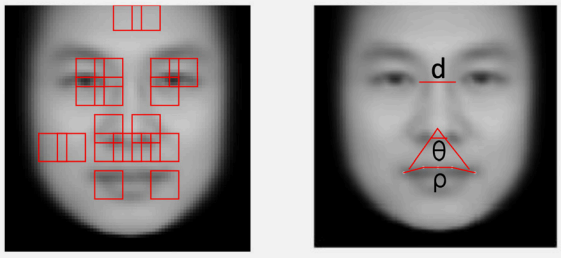

(a) (b)

Figure 4. (a) FGM results; (b) Three discriminative features ρ, d and θ.

Left | "Alt-Bias Gun" (2018)

Right | Taken from "Automated Inference on Criminality using Face Images" by Xiaolin Wu and Xi Zhang (https://arxiv.org/pdf/1611.04135v1.pdf)

person's risk of recidivism, whereas the risk factor for black people is generally set higher than that for white people, even though actual recidivism rates tell an entirely different story. The continued implementation of such systems has certainly helped create unfavorable social conditions for black people. Through my research, I understood how criminality is a result of data, and a product of society, so I ultimately thought that there should be more energy channeled into the design of society than into the production of arms. People don't have to be killed. A paralyzer gun would absolutely work just as well.

Speculative design from the realistic standpoint

I would also like to briefly talk about another educational activity that I have been increasingly getting involved in.

One thing that people tend to criticize about Speculative Design is its dreamy, sci-fi like focus on things that are somewhat divorced from reality, while there are certainly other issues that are more pressing. I have been approached with requests to teach about Speculative Design also here in Japan, which inspired me to try and find ways of discussing Speculative Design – something that has been labeled as "escapist" – in connection with real life issues.

The "Design for the other 90%" movement promotes to take the power of design, which has been focusing on designs for the rich ten percent up to now, and apply it to the

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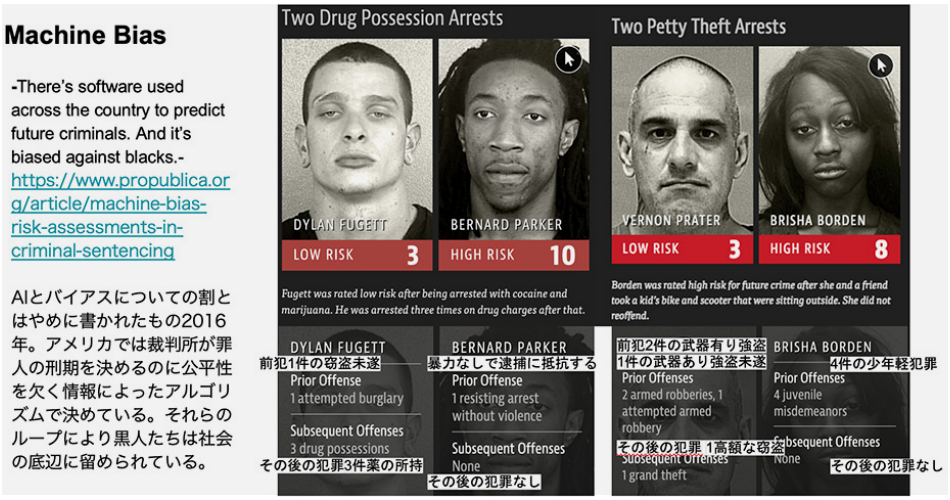

other ninety percent. For example, there is a concept for high-capacity rolling water tanks that children in Africa could use for drawing and transporting water, which usually involves walks of several hours. The "Revolutionary 20XX! Tool Kit," developed for professors at the University of Tokyo's Faculty of Engineering, is what came out when I thought about ways of connecting such ideas with Speculative Design in a slightly sci-fi kind of style.

The theme is the following: "Assuming that you will be a revolutionary in some country in the year 20XX (2030 perhaps), what kinds of technologies would you use, and how, to solve what kinds of problems?"

The problem with Japanese students is that they tend to talk only about themselves, and are only interested in things that concern themselves and their own country, while social issues fall by the wayside.

Each participant is randomly assigned a number between 1 and 204, each representing one country. It is then assumed that the participants will be born in the respective countries they have been assigned to in ten years from now, and be revolutionaries. Asked to use any kind of technology to solve the country's problems, they first do some research on their assigned country, which ideally involves talking to about two people who actually live there. This is how they learn about all the different countries that exist in the world.

"Revolutionary 20XX! Tool Kit" (2019)

From there, the workshop continues with cards that the participants draw to determine their themes. They work out concrete ideas based on their combinations of SDGs cards, technology cards, output cards and philosophy cards. There are various kinds of technologies and output, with multiple possible combinations, depending on which ideas develop. The final card is the revolutionary card. The "revolutionaries" encompass a wide range of people, including artists, IT pioneers, politicians, and individuals such as Hitler, and from there a role playing game unfurls in which the players think about what they would cook up if they were the person they drew. One of them is in fact the Forensic Architecture card!

All of these are things that I do, driven by the desire to get together with a diverse range of people, and think together about what kind of world we want to create, based on what we consider to be good or bad, and who establishes such standards in the first place.

JY Thank you very much. I think you made a very good point especially in the description of your educational activities. The various projects that I have been involved in have made me aware of the importance of the question how the senses of young people today may be activated. As I pointed out earlier, only one in five children in Japan are able to participate in society, which is an extremely low ratio among advanced nations. In a world where decisions are being made by a specific, limited group of people, I think that many share a certain sense of being neglected by society, and a feeling of not being given a chance to commit to it. I realized once again that this seems to be the viewpoint from where we should attempt to make some changes.

With this in mind, I would like to introduce a book that was co-authored by the two persons who almost assume a co-moderator kind of function here today.

Design for social change

KK Let me briefly explain a few sections in *Speculations*, a book that I edited and co-authored with Mr. Sunayama, which can perhaps serve as a guideline for today's discussion.

As I am a fashion designer by profession, the work of FA dedicated to conflicts and human rights issues, g0v addressing politically related problems, and Ms. Hasegawa's projects revolving around gender issues, appeared to me like forms of activism of sorts. From

that perspective, I would say about myself that I aim to be an activist focusing on environmental problems. In "algorithmic couture," one of my main projects, I apply methods of machine learning and deep learning for the creation of new, data-driven production lines, in order to solve the characteristic problem of refuse material that we have in the realm of fashion.

Speculative Design, one of our topics today, is also being applied in the fields of architecture and computational design, so there is a recent trend toward expanding such existing domains. They have also begun to employ this method in university education. In *Speculations*, we introduce a number of cases that exemplify this development.
Different from graphics that illustrate possible futures as anticipated through Speculative Design, like the PPPP diagram that Ms. Hasegawa showed, I like to refer to this so-called "multiversal design" concept. It is based on a timeline that focuses not only on the future, but on the present state in which boundaries that used to be fundamental premises for design in general – temporal and spatial boundaries, but also those between things like natural and artificial – are getting increasingly vague.

Let me introduce a few examples to briefly explain the backgrounds. In recent years, Dunne & Raby, who originally proposed the concept of Speculative Design, have been furiously criticizing design that seems like propaganda for technologies that place special

Kazuya Kawasaki

emphasis on all things "future." They suggest that circumstances in which reality has begun to exceed fiction require the presentation of a parallel world, which they refer to as "designed reality." I think we can understand this as a relativization of temporal axes.

Carnegie Mellon University offers courses in "Transition Design." As we see also in the case of g0v, there is a great demand for design that aims to induce social change. What is necessary for that is design that focuses not only on the sustainability of our environment, but also on the sustainability of our social system. Possible methods for accomplishing this are theorized in "Transition Design." I won't go into details here, as I just wanted to give you an idea of the various approaches that are recently being pursued.

There is also a project called "Fab City," which somewhat pioneered the open-source movement, promoting the open-source style not only for the use of data, but also for physical materials. The bigger idea was to create entire ecosystems by making all things open on a city level, without distinguishing between physical matter and data.

The last project I want to talk about is "The Stack," a concept proposed by a person named Benjamin H. Bratton. I think this is partly connected also to the work of FA. In addition to the physical spaces in which we operate, there are meta-level information spaces that emerge, and the idea here is that all these multiple spaces can be put together in a

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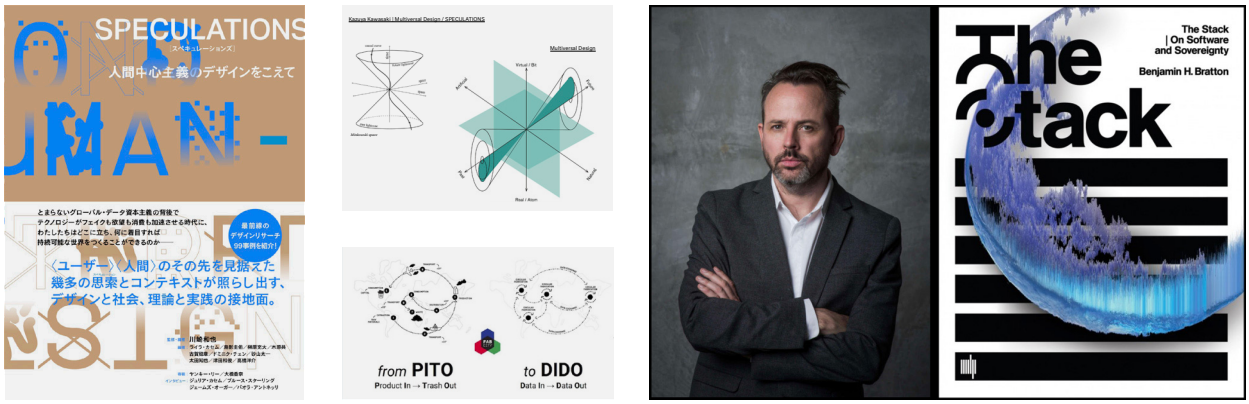


Left | *SPECULATIONS*, BNN, 2019, Edited by Kazuya Kawasaki, written by Kazuya Kawasaki, Sunayama et al.

Top middle | Graphic explanation of Multiversal Design

Bottom middle | Fab City

Right | Benjamin Bratton / *The Stack*, The MIT Press, 2016

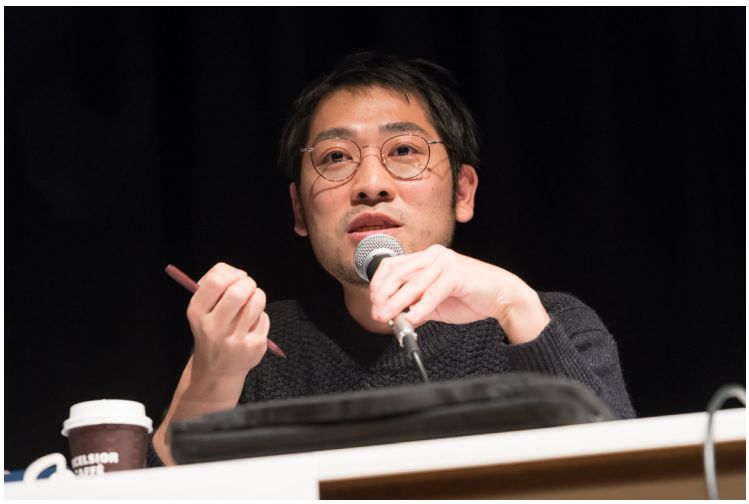
“stacked” kind of way. Bratton suggests that it is important that designers, artists and engineers alike keep this in mind when designing things. He is presently teaching at the Strelka Institute in Moscow.

Focusing next to Speculative Design also on such forms of social activism, the above-mentioned book illustrates a number of valid design theories that have been developed around the world.
Mr. Sunayama was in charge of the chapter related to algorithms and computational design, so I would like to pass the mic to him to give you a more focused overview of this particular topic.

Algorithmic design as a technique for changing society

TS In the chapter on algorithms, which I wrote together with Mr. Kawasaki, we also talk in fact about FA.

Algorithmic design is a cultural area where computers are used for producing and drawing shapes that are impossible for us to draw by hand. The AA School, which Eyal also graduated from, has been leading in the field. While this is basically what algorithmic design is about, our book discusses what kinds of speculative aspects algorithmic design has



Taichi Sunayama

acquired while gradually evolving in the first decades of the 2000s.

I first encountered the work of FA at the Yebisu International Festival for Art & Alternative Visions in 2016, and was greatly impressed. I had been studying computational design since the early 2000s, and it was kind of shocking for me to see how the same basic methods and technologies that are employed in architecture and urban design – collecting and digitizing quantitative data such as hours of daylight or traffic volume at a specific site or city, and reassembling those values into algorithms, based on which architectural or urban designs are developed on a computer – are used in totally different ways as vehicles for social criticism.

I think the fact that FA are employing algorithmic design, a methodology that originally belongs to the realm of design, to appeal in a rather self-referential way to society itself, is one reason why they have attracted so much attention across different fields.

The same certainly also applies to the work of g0v. Data visualization is a design technique that was originally used for things like visualizing music on iTunes, and that was later made democratically available for anyone to use. Our aim with the book was to illustrate the situation in the 2000s, with approaches like these that don't simply focus on "using a computer to create something new" becoming the mainstream in art and design. JY_____ Let me close this session at this point, and take this last account as a starting point for our subsequent discussion.

Session 4

Discussion and Q&A
Community-generated Resilience — Between risk and engagement

Eyal Weizman [EW: Forensic Architecture] / Christina Varvia [CV: Forensic Architecture] /
Bess Lee [BL: g0v] /
Ai Hasegawa [AH] / Kazuya Kawasaki [KK] / Taichi Sunayama [TS] /
Junya Yamamine [JY]

Resistance or control – The use of information in the post-open data age

JY Each of the topics that have been brought up so far is certainly important enough to be discussed deep and wide. However, at this point I would like to go back and talk also from our side a little bit more about the "post-open data" issue that Eyal initially mentioned in his presentation.

The emergence of social media and all kinds of free software have largely increased the number of tools that are available to us today. On the other hand, the trend of gathering

only the information that is within one's reach, without moving away from one's own comfort zone, is a phenomenon that has to be attributed to the vast amounts of information, tools and communities that we can choose from. Situations in which things outside of one's own community have become hard to see represent one aspect that I think also Ms. Hasegawa has been addressing in her own programs, and it seems to me that this is also related to the significant changes that have occurred in the conditions surrounding media over the past twenty years. The two teams that are joining us at this forum have introduced a number of means for opposing such trends. The spread of fake news has become one of the biggest problems of our time, where as the increase of information sources is making it more and more difficult even for larger media organizations to fact-check information. A similarly strong effect have also the myriad news that are thrown at us in the limited, "digest" form of headlines. In that sense, we are agitated by the media in a rather big fashion.

The topic of "open data" involves the question who exactly is using such "data" that are "open." Especially the issue of Cambridge Analytica, which I mentioned in my presentation, is reflecting this quite notably. Social media were originally designed as tools for individual use, so that people can communicate with their friends even when they are far away. But they grew into giant pools of big data collecting personal information, and those are now being utilized for propaganda purposes.

Our guests from FA also expressed in their presentations criticism toward the use of design for propaganda purposes, and a very big factor in this respect seems to be the point that the power that such tools can assume tends to be vested in the authorities. They have great intellectual human resources at their disposal, which means that they have a variety of channels for working out new methods as needed. "Post" here refers to a state in which we have gotten over with such times and circumstances, and in that sense, I think it defines at once also the starting point for this discussion.

"A variety of channels" means, in other words, that there are various types of power to silence people, the strongest of which is violence, or ultimately, killing. The methodology that the members of FA employ is to focus on the voices of those that have been killed, and make them heard and the circumstances seen. Through their activities, they locate the violence that is being muted, and that is clearly criminal behavior.

Another method of blurring things and keeping people from thinking about them

is what we call "sabotage," whereas systems designed to prevent quick and conscious decisions seem to exist also as a political strategy with the aim to intentionally sabotage citizens. Such mechanisms are usually embedded in the system itself, and therefore hardly come to the surface. I think there are various kinds of situations in which people are being silenced, all of which are to be positioned somewhere between criminal and non-criminal action.

Now let me go back to the term "media art," and the aspect of bias in media, as I would like to discuss the validity of responding to such biases by utilizing the same tools, albeit to generate a different kind of power.

Eyal, you once said in an interview[1] that, in the 1960s-70s, it was Jean-Luc Godard who committed himself to addressing political issues by way of film, a powerful medium at the time.

The tools that you are working with at FA, you are applying in ways that are slightly different from how they are normally used. Please tell us about what initially inspired you to choose such kind of working style. Against the backdrop of intense resistance movements you experienced in Palestine, you apparently did a variety of experiments, and I would also like you to explain briefly what those experiments were about.

Observing politics through chains of small events and little details

EW In the very early years of the 2000s, there was a thing called intifada, a rebellion of the Palestinians in the West Bank against the Israeli government that was dominating them. As part of this intifada, it became essential for any act of resistance to have a map.

Maps were previously produced only by the dominator, the occupying colonial power, and resistance needed a counter-map. I was part of a group of people that were drawing such a map. Indeed, during the conflict, while there were shootings in the West Bank, we were driving around to measure things and draw that map as a tool for resistance.

But in 2005, cartography disappeared as a practice. Google Earth was launched in 2005, and no-one needed that kind of old-style cartography. In 2007, Facebook emerged, and cartography, or counter-cartography, turned into counter-forensics. So the energy that we used to spend drawing a map of the territory, turned into a different kind of mapping. Media allowed us to map a political situation from the inside out, unlike the old style where

you look at the border of a territory in order to draw a map and locate everything inside of it. When you do media analysis, comparing satellite images with photographs that people take on the ground, you look at a single incident – a shooting or a bombing for example. You start from an incident, and you map outward from the incident. Then the question is how to make the incident political.

My Palestinian friends say to me, there are thousands of people killed in Gaza, so why do you map only the incident of one individual person? The answer is, if we can make it, we can try to make the incident political. In a media environment, a small phenomenon can be amplified. In an urban environment, small incidents become significant. We cannot think in terms of scale anymore like traditional modelists. The scale of a country, of a city, or of a building – such scales and temporalities are completely mixed together. Sometimes an instant has an effect on history in the long run. Sometimes you bomb a building, or you close a crossroads, and you have an effect on the whole city. All scales are short-circuited and connected.

So the methodologies that we develop are not only about understanding incidents. They are methods of thinking about politics, and thinking about activism, and I think the big problem for any activist is how to turn a local issue – a fight about a street corner, a fight against a building, a development – into a major political issue. Working across scales is the lesson that you can take away from this.

KK One thing that the aspect of politicizing certain events through media reminded me of is the practice of "slow journalism." In the book *Speculations*, the work of FA is referred to as "detective" work. In today's media environments – journalism in particular – there is a certain emphasis on speed and immediacy. I also think there is a focus on forms of conveying information that place importance on covering large numbers of events. As a matter of fact, we are all subject to control by the countless notifications that we receive to our mobile phones on a daily basis. With FA, their communication of political information seems to be working in a completely different way.

First proposed by Jamie Angus at the BBC, slow journalism is a form of journalism opposing the phenomenon of deepfakes. Listening to your presentation, I found the "slowness" of FA, based on research and minute evidence, to be a very interesting new form of cultural practice amongst digital environments that are all about "speediness" and immediate effectivity, yet that have seen an amplified spread of fake news.

Your bottom-up approach to algorithms seems to work well at this point, but I wonder what might happen if your way of using algorithms was adopted by the authorities, the political powers that be. Would that result in a "hacktivists being hacked" kind of situation? And what would be your available means of counter action if something like that occurred?

EW____There is an old-fashioned literary principle, an advice for writers, that says, "Write the slow things fast, and the fast things slow." For us, this means that, if we work on environmental violence, a violence that takes decades to happen – the slow degradation of the environment, deforestation, intoxication of the environment – sometimes you need to accelerate it in order to understand it. Write fast things slow means that, sometimes we spend a year on a second and a half. We just completed a research about what we think is the most important 1.75 seconds in the history of London, which is the killing of a black man, that started the London riots. We spent a year on that. I think that today, also in your book *Speculations*, and the whole notion of the Anthropocene that exists in there, in order to understand it, you need to go into deep time, and somehow accelerate it conceptually in your head. Only if you accelerate it, you understand, you start seeing the shape. What it teaches us is that temporal intervention is important, rather than simply slowing down. So sometimes you get things faster.

Regarding algorithm and the first question, and before I go to the second one, we

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think that the danger obviously of Facebook is that the information that is collected upon us will fall into the hands of bad players, like Cambridge Analytica, or any other agents of, speaking from our corner of the world, Brexit or Trump for example. A Palestinian poet I know very well was arrested for a poem that she posted on Facebook.

But there is another dimension to it that we must absolutely confront, and that is not simply the surveillance they mention of social media, but a kind of engagement it encourages. Surveillance capitalism, to use a term coined by Shoshana Zuboff, requires economies of scale and scope. Scale means that we need data of a lot of people to base our predictions on. Scope is the variations, the different types of behavior that we need to enter into the system. Social media platforms continuously encourage extreme behavior, because that's what they need in order to get the data. I.e. the crime, the violence is already in the behavior that they promote, and it's not simply falling into the hands of somebody else. In order for us to be surveyed, we need the extreme, we need the irrational, we need the violent opinions to be part of the social platform, and we are also working now on understanding that system.

Regarding military surveillance and tracking our practices, one of the principles of open-source work is that your best protection is to be out in the open. So what police does, what Secret Service does, is to make investigation closed to the public. You don't know what they do until the day they release it, and then it will be out. Even if we might not be able to do it in all cases, our intention is to have our investigation out in the open. We have no protection against military grade surveillance. You know, you can enter into the economy of encoding or encrypting your stuff, but the kind of players that we play against, such as governments, will be able to crack it. So we need to respond to surveillance with openness.

Another very important question you are asking is, what if governments learn from us? In politics, when you work out in the open, you have to accept this risk. Government and activism is like a process of coevolution. We evolve in relation to technologies of surveillance applied on us, and also the enemy evolves continuously. There is no protection from that. The minute you engage, you're exposed. The minute you go into battle, your formations are out there and clear. You need to take into consideration and learn to always remain one step ahead.

In FA, we do not rest on our techniques. We do not develop techniques and then keep on applying them. Every project is an attempt to develop new techniques. Again, we speak about very short periods of time. We try to stay ahead very minimally on some

occasions, and on others, the technologies that states and militaries use are far ahead of us. When the technologies and the surveillance that militaries use are ahead of us, our only protection is the creativity of being able to think conceptually, to operate like artists, that is, to move and navigate, duck and dive.

KK When you talked about "being ahead," I found that to be related also to the methodology of the image complex that FA is working with. It is a combination of multiple media, and elements like 3-D, information on social media, and machine learning, using various available media and technologies in a bricolage like fashion. It is the quality of that combination that can turn into a weapon against the big powers, and I believe that we can find some big hints here regarding means of resistance also for artists and designers.

Exposure, protection and the risk of traumatization

JY I think Eyal offered quite a lot of hints, including also the methods of describing fast things slowly, or reversely, translating things that occur over long periods of time into short accounts. Time lapse recordings are a typical way of presenting longer events in a condensed form, such as quick-motion images that reveal how sceneries change during the night. I think it's a tool for representing things that are normally not visibly, in a short, digest kind of format.

Communicating events through the narratives that are created this way is in my view an essential technique for raising public awareness regarding problems. I understood very well from Eyal's presentation how they make use of the means that are available today, to address different issues by different approaches.

There was also talk about confronting enemies, or opposing forces, which is a very practical aspect, and I would like to ask the following to the members of FA, and subsequently also to Bess from g0v. Up to this point, have you ever experienced any kind of interference or other counter action from the communities you are confronting? I once read in an article about a person FA worked with in Mexico, who was then observed almost like a spy[2].

CV That's a good question. I think that the way that we work, also very often remotely, is the first layer of protection. What is important to highlight here is that the communities we are

working with are already at risk when we start engaging with them. They are already under certain oppressive regimes, they are already experiencing violence, so it feels that the investigation itself is not something that creates new risks, but it just reveals existing conditions.

Our role in aligning ourselves with those communities is definitely a supportive one, and so far the way that we have operated hasn't exposed us to extreme amounts of risk.

Maybe there has been some kind of minor threat that thankfully did not come to any fruition, but in principle, I think there is a way that traumas experienced through different communities has very much to do with exposure to violence. Entering into that kind of work obviously means that we have to try to understand that trauma. So there are risks of secondary trauma, risks of reexperiencing and going through a retraumatization, but in a way, being sensitive to the quality of the experience is also quite important for us as investigators in order to do our job well, because we have to understand all the nuances. So there is a balance here between being sensible and sensitive, and aware of all of those layers of violence that we are trying to investigate, while not protecting ourselves too much. If we do create a solid border between us and the experience, it means that somehow we are missing a part of the picture. Having a somewhat porous relationship with that kind of material is necessary, but a little bit of protection is of course also important for us to be able to keep going without getting traumatized or burned out, and at the same time, alleviating the pain of those we work with. The way we work with them in our projects allows that pain to be expressed in various ways, and the experience to become active and political, rather than just remain at the level of an individual feeling of injustice. It's about opening it up to a more collective experience, and finding ways to highlight it as something that concerns all of us. It's not just about one person whose human rights have been trampled over, but it becomes a question of who we are as humanity, if we allow something like this to happen.

JY Traumatic experiences of people who repeatedly watch extreme footage for their reviews of illegal contents on YouTube etc. is also an issue. I understood very well how watching such extreme kinds of images during investigations can result in a transfer of sorts of the traumas the people in those images have experienced, onto those watching and thereby reliving them.

What decentralized organizations can do

JY I'd like to ask that question to Bess as well. What struck me as particularly characteristic about the Sunflower Movement was the point that, rather than following a designated leader, it was a concerted, multifaceted kind of activity. In the Umbrella Movement in Hong Kong, on the other hand, there was a leading force. There are people that describe what the decentralized community is doing in Hong Kong right now as following the style of the Sunflower Movement. The idea of a decentralized mechanism is something that originally emerged from within g0v, or within the Sunflower Movement in Taiwan, and it seems to me that it also works as a countermeasure against opponents.

In this sense, I think that decentralized operation, the relationship between g0v and the opposing forces, and perhaps also the expansion of your activities to encompass live streaming from the occupied parliament, have certainly helped create a situation in which your work may cause significant ripples. How exactly did the members of g0v communicated with those on the other side, and how did you protect yourselves?

BL There were in fact two central figures that were leading the Sunflower Movement at the time. In retrospect, the movement got various organizations involved, and those organizations may not have recognized the two as leaders.

I think there were all sorts of problems and also quite a lot of friction within the movement later on.

There were some g0v members that got involved. The Sunflower Movement was not only taking place inside the Legislative Yuan, but also outside, whereas the problem was that those outside didn't know what people were discussing inside. It was through the participation of g0v members and the live streaming they started doing, that both, those inside and those outside, began to mutually understand what the other was doing.

For g0v, the most important thing is to be open, and to be transparent. This applies also to this movement.

Regarding the open nature of the organization of the Sunflower Movement, there are lots of little details. I guess people in Taiwan and Hong Kong could both use each other's situations as a reference, but the circumstances are of course not exactly the same. That's why I think it is also necessary to look carefully at both of them individually.

JY　Thank you very much. One more thing that I am concerned about is, what are the factors that are enabling g0v to continue your activities. After all, I think that making things open ultimately also involved sharing benefits that had been limited to certain parties up to that point. Has there been any kind of confrontation between g0v and such people?

BL　Regarding the issue of risks that we are facing as part of our work, it does in fact happen that warnings are issued, advising for example that g0v members better refrain from visiting Hong Kong right now.

Some of the people involved with g0v operate under their real names, while others work anonymously. For those who don't reveal their real names, risks are rather low, but appearing in public and using one's real name, like I do, necessarily means being exposed to danger. That's because of the open nature of the community. As a matter of fact, a certain g0v member who recently traveled to Hong Kong immediately caught the attention of the local authorities, and was purposefully reported in the news. When these things happen, quite frankly I sometimes feel scared.

As you all know, we are making all kinds of data available to the public. For example, information on things like political donations is openly shared as well, down to details as to what individual or what company donated what amount of money to what politician. Such data necessarily catch the attention of the Chinese government, so if, for

example, a certain company sponsors a certain politician, and it turns out that the company is not entirely pro-Chinese, there is a possibility that their business is not going to go well in mainland China.

However, I think that such open data are safe in the case of "friendly" countries. At present, the Taiwanese government assumes a relatively friendly attitude, and I think such kind of risk is rather low when dealing with countries with a friendly stance toward Taiwan.

JY Would you like to add something, Mr. Sunayama and Ms. Hasegawa?

TS There is one thing that I would like to ask Ms. Hasegawa with regard to speculative design. According to some views that have been expressed, the effectiveness of speculative design in the real world seems rather weak when compared to the practical work of FA. Now that we have listened to the sessions of each of our guests, I would like to know where you are positioning yourself within the present global situation, and what kind of work you are planning to do in Japan.

AH As speculative design is basically a policy that is aimed toward the future, it is not so much focused on reality. This might be the root of the actual problem, so I guess we will have to work out step-by-step whether the "future" in this case is a time in ten years, five years, or one year from now. Another thing that I learned today is that there are in fact quite a lot of hints that we can find in data.

Management for a sustainable community

AH I work as an individual, and to me the team efforts of our guests today seemed to be activities that are very powerful. When people get together to do the things that I do as an individual, it always involves the sad effect of some dropping out because they are unable to commit to the common goal.

In this sense, I would like to ask our guests about how they manage their respective organizations – in terms of maintaining the philosophy and members' continued commitment to it, but also regarding economic aspects.

JY It is indeed a question of team management.

CV I guess the difficulty of working in a team, where everyone is coming from a different field of expertise, is that we all speak a different kind of language. We use different

terminologies, we have different concepts to understand what we're investigating, so I think the constant struggle – but also what is exciting about it – is that there needs to be an element of translation at any given moment. I think this is a difficulty of doing interdisciplinary work, but at the same time it's also the strength of such a practice. When we have certain research questions or problems to solve, or a certain kind of event that we investigate, everyone is looking at it from a different angle, so what working together does is create a multi-perspectival approach that basically is the only way, I feel, to work without having blind spots. If you always think like an architect, you only see architecture in front of you, but if you think also as a filmmaker, you understand the medium of video, and if you think as a philosopher, you have a different way of looking at things.

This is what really allows us to do a different kind of investigation that sees things more holistically, but it's also incredibly difficult because at any given moment you need to communicate with people who just don't have the same way of thinking. As we grow as a team, it's also a process of learning from each other by doing, and that's what is also keeping it exciting.

JY With difficulties like these being particularly obvious, I think it is quite amazing how you deal with it. Let me pass the question to Bess as well.

BL That's a very difficult question that we are constantly struggling to answer. One thing that the g0v community is very conscious about is the fact that we are connected through something like a constitution, and whatever we do, we always have to comply with that. It's very simple things. For example, anything that any member does must be made available as open-source material, and furthermore, our work must not be conflicting with the principles of freedom and democracy.

I guess the method of discussing things at g0v is perhaps comparable to the way an engineer works, in that we are constantly striving to detect bugs within the discussion. Even when there doesn't seem to be any, we need to inspect and test, just like an engineer does.

In Taiwan, Audrey Tang installed an interesting system called "sandbox," which was all about thorough inspection before enforcing a law, without denying the possibility of inherent bugs.

JY Regarding the aspect of law and the acknowledgment of bugs, it's in a way like web design. As it works on the premise that versions will be updated, everything can be

released and introduced to the system at an early point. It's a very effective form of action that, as I believe, may provide frameworks that facilitate rather experimental and aggressive political approaches.

Japan is a country where such approval processes are especially difficult. Even when there is no problem with a project on the whole, everything comes to a halt as soon as someone points out one thing that isn't right, so I think we really have a problem with how things aren't easily realized in this country.

Engineers and bricolage

EW I want to add one comment on what Bess and I were actually saying. I'm very interested in the notion you presented of how to think about a conversation in the way of an engineer. I guess it's somehow also related to your question as to how we keep our team together. I remember there was a great concept by a sociologist called Clause Levi-Straus, who contrasts two models – the engineer and the bricoleur. The engineer works with pre-given catalogues of options, within frameworks of safety and test, while the bricoleur is kind of an improviser in how he uses elements in the assembly. As you said correctly, in engineering you need to assemble things from multiple parts, whereas those units of assembly that the bricoleur brings in are used in ways other than what they were designer for. They are all kind of subverted a little bit, and I think that, in what you said, there is a combination of both, the engineer and the bricoleur, who build something new from bits that may have been designed for government or military purposes. We put them together and create something else.

JY In that sense, with Eyal assuming a central function within FA, to me it seems to be an organization in which all the techniques and interests of the various experts involved are brought together in a bricolage like fashion. For example, take the collaboration with engineers to work out new algorithms using technologies for observing waves. I thought that it must be elemental for Eyal himself to be able to understand the various languages that each of these specialists brings to the table.

KK Regarding the "bricolage" method, there is a writing by the French philosopher Michel de Certeau[3], in which he further develops the concept as proposed by Levi-Strauss.

According to de Certeau, it is important to practice the method of bricolage – and especially, to do so on a daily basis – as a form of resistance against authorities, which you emphasized also in your own presentation. This seems to be a valuable concept when it comes to defining the similarities in the work of FA and g0v.

FA combines digital tools such as 3-D and machine learning, in ways different from those applied by media artists. Likewise, g0v is a community that very effectively combines Google Spreadsheets, hacking tools, and other open-source tools that are available to anyone via the Internet.

In that sense, going back to our central theme today, it seemed to me that we may describe activities of cultural resistance in the post-open data era – or as we may actually call it here, the age of the deepfake – as a bricolage of sorts of digital tools.

JY What kind of training are you doing for your activities in this respect?

EW I think the idea of training is coming from an ideology of discipline and expertise. I imagine that the way in which we work is that we assemble a very diverse team around a particular question.

First there is the question, then comes the team. There is no multi-disciplinary team that is a priori existing prior to the question. This is one thing. The second is that a team is never including only the team in our office. In order to answer a particular question, Christina and I would sit together and first think about who from the team we need to become the core. Then we need to approach people from other disciplines, and people from the ground – communities, layers, or activists for example – that are very diffused. So there is a creation of heterogeneity. In order to navigate that, as it's impossible to train someone in all those disciplines, what you need to do to be able to conceptualize is a kind of collage, or bricolage, that is necessary to answer a particular question. How do you assemble the components of a question in order to make an investigation?

Another very important thing is that the assembly of people – scientific experts, architects, artists, a gallery here, an activist in Tijuana, some lawyers perhaps in another country – in our place become a community. That is a community of practice. A project builds a community, and once it is formed, that community can do other things later, or it can disappear when the project is done. You never know where it is going.

The reason why this is important is that disciplinary thinking has resulted in an

organization of knowledge according to institutions. The pillars of our societies based on university, which is divided into natural science, humanities, the legal system, the police, government and think tanks – these institutions are under enormous amounts of pressure. Society has lost trust in major institutions of society, and if you ask me, that's for a good reason. So far, we agree with the post-truthers, we agree that we cannot trust the institutions of power and knowledge themselves.

However, the answers that the post-truthers give is that there is no way to establish the truth, and therefore, any opinion is as good as any other. What we are trying to say is that we need to compose truth differently. It cannot live within an institution, it has to live within dynamic and diffuse networks that include both people on the ground, and experts and artists. It must include at the same time the gallery and the court, the parliament and the street. It is really from the ruins, from the dust of the existing institutions of society, that we are trying to compose something that is still very fragile and premature, and that can create a new epistemology that is not institutionally or disciplinarily based.

Getting down to the truth by assembling open data

JY Thank you, I think your opinion will serve as a very useful reference. We also received a number of suggestive questions from the audience, some of which I would like to pass on to our guests.

Related also to the phenomenon of fake news, the concept of fiction in the realm of computers and AI, for example, certainly is a major worldwide problem these days. Another big issue is today's surveillance society that relies on digital technologies.

The following is a question to the members of FA. I believe that your work has been based on investigations on concrete subjects. Are you considering addressing also such significant but rather abstract and conceptual global issues, or are you planning to keep focusing on individual matters rather than conceptualized models?

CV As far as we are concerned, the fight against truth is not something that has started now. In every battle, in every historical war, there has always been an attempt to distort the facts about what has happened, so that's just another field where politics takes place. The tactics that we see now are not new: the distortion, the smudging, the way that truth hides

itself amongst a plethora of evidence, amongst a cloud of uncertainty. What has changed is the way that technology has amplified all this.

I think it's a game changer in a way. It has always been like this, but now it has kind of horizontalized the ground as to who can speak about truth. It is no longer only the institutions, but now we all have access to first-hand evidence that exist on social media. In a way, the production of media has been socialized and democratized, so that anyone can speak up. However that also means that we need to develop new ways to verify new tools for cross-referencing, and we depend on those who have the authority to say what has taken place.

So it's definitely a huge challenge, because as you mentioned, technology has made it quite difficult to distinguish between what is real and what is constructed or composed.

But at the same time it creates an opening for us to discuss again about who has the right to speak truth, and how we can negotiate truth between different groups.

So I think what we are observing at the moment is kind of a technological lag. Technology has moved on faster than we have, and we haven't had the time to develop techniques yet to follow it. Maybe it was similar back when the radio was invented, and the way it was used for political purposes. Or any media tool really. It feels like we just need to do some catching up.

KK The idea of "assembling things" that you mentioned in your presentation is one thing that I'm considering to be very important. As Christina just pointed out, the development of a society based on open data has paradoxically also resulted in all kinds of gaps regarding such things as digital literacy and information among others. It seems to me that, what FA are doing in order to fix those gaps, is to try to get down to the truth by assembling all kinds of open data.

This reminded me of the concept of "designed realities" as proposed by Anthony Dunne and Fiona Raby. Important here is that it's about "realities" in the plural form. The idea is that, just like all the different angles and perspectives in the photographs that FA assemble, there are today as many different realities as there are personal devices. It appeared to me that the process of assembling those realities, and designing them with the aim of arriving at a certain truth, is exactly what the members of FA are engaging in.

Art born from digital junk

JY One thing I would like to ask Bess and the two members of FA alike is, how exactly would you define the "power of art"? How do you think the global art-related network, including artists in a narrow sense, but also international institutions, can be of use in social movements?

EW Firstly, I want to speak very briefly about the question of open-source assembly, and then I will lead out from that.

I think we need to understand that, in recent years, there are two types of organizations that have emerged in the digital age. One is WikiLeaks and related organizations. The political imaginary that it is based upon is that there is a secret that is kept within government communication, and in order to call for accountability, we need to puncture that wall for it to leak, so that information will necessarily be exposed. WikiLeaks was extremely good at puncturing the walls of power, and allowing a lot of information out. But we cannot rely on simply that information being out in a public space, because somebody needs to look at that information, somebody needs to assemble it, somebody needs to connect and understand, and build a narrative of what is it that was just released. I think the problem of WikiLeaks is that it was very good in the "Leaks" but very bad in the "Wiki" part. The assembly was not done by them. We all remember the "Collateral Murder" video[4], because that is one single bit of evidence that could be used.

On the other hand, there are organizations like Bellingcat and us, that say, "The secrets do not actually exist in secret meeting rooms and protected databases. Everything is out in the open, if you know how to look at it." The most secret program of the CIA, of people being kidnapped in Pakistan, Libya and Afghanistan, and moved across several countries in the Middle East, where they were tortured etc., was exposed not by a leak, but by open-source analysis, patiently connecting receipts to flight paths, and to some photographs. Every action that happens around the world needs to interact with the physical world, and in that interaction with the physical world, there is a trace. You need to know how to find that trace, and how to connect it.

So there are two completely different imaginaries of what secrecy is, and what action in relation to secrecy is. Thinking about the second approach, about art movements like Arte

Povera – what does it mean? It means that we take the stuff, the junk of daily life, and make art out of that. We combine pots and nails and rusty things that we find, and some corrugated steel. Art is using the kind of material that is around us, just composing it.

I think that the poor kind of material of Arte Povera, the junk that surrounds us, is digital junk. And assembling that together requires imagination, skills, and collaboration. It requires all those things, as that is what art is about. It is about building things out of nothing.

And indeed, people are mistaken when they say that you don't need imagination for telling the truth. Truth is only there, and what we want to show you is how much work, how many aesthetic decisions, how much imagination you need in order to make the truth speak in a particular situation. For that, I think that the education that people here have, as artists, as photographers, as scholars in humanities, is absolutely essential. It's not only the computer engineers that we need, but we need the ferocious imagination of artists and other creative practitioners.

JY This was a very interesting account of actual projects focusing on using one's imagination, and assembling digital junk into works of art. Bess, would you like to comment?

The power of art beyond translation

BL I think that "simulation" is one of the means of artistic expression, and as especially such groups as g0v are characterized very much by their community format, I'm considering activities aimed to simulate things as a very interesting approach. As Eyal pointed out earlier, their work is about using a lot of imagination to show reality, and to simulate it. That's exactly how I am seeing it, too.

Although not related to data, it's something that we have been doing as well. A discussion in one of the summits that we hosted was about how hearing-impaired people can participate and exchange opinions.

There was a hearing-impaired participant from mainland China, using Chinese sign language, which is different from Taiwanese sign language. So there was an extensive mechanism that we needed to set up in order to understand what the person was saying, and we faithfully simulated that whole process.

We needed to design a scheme in which multiple individuals worked together by

way of mutual understanding. In order to translate Chinese sign language into Taiwanese sign language, we first needed someone who could read Chinese sign language, and therefore understand what the hearing-impaired person was trying to say. That person then verbally interpreted the contents in Chinese, which then had to be translated into Taiwanese sign language by someone who was familiar with that. As there was also a Chinese-English interpreter involved, the Chinese sign language was verbally interpreted in Chinese first, which the interpreter then translated into English. The cowriting system that we use allowed us to simultaneously record the contents in Chinese and English on the spot. At the same time, we did a live video streaming, so people could also watch the Chinese and Taiwanese sign language in the video, and those who speak Chinese could understand the participants' arguments.

In other words, when considering the effort we had to make, only to simulate what the hearing-impaired person from mainland China was trying to communicate, I imagine that there are even more things that need to be done when it's about art.

JY_____ Thank you very much, also to the translators, whose communication skills seemed like a magnificent demonstration of "relational aesthetics"...

I think this first forum was a great opportunity for an in-depth discussion on topics that still remain difficult to address here in Japan. I would like to express my gratitude to the panelists once again, and as this isn't supposed to be a one-off event, I hope that we will be able to continue and work together on other projects in the future.

[Notes]

1 "A gunshot a speech a whisper: The art detectives exposing Middle East crimes," an interview with the members of Forensic Architecture by Middle East Eye, published 6 January 2019 (https://www.middleeasteye.net/features/gunshot-speech-whisper-art-detectives-exposing-middle-east-crimes)

2 See footnote 1

3 Michel de Certeau, L'Invention du quotidien, Vol.1: Arts de faire, 1990

4 "Collateral Murder?" (Al Jazeera) https://www.youtube.com/watch?v=Zok8yMxXEwk

Session 5

Session 5

After meeting:
How to install social practice in Japan

| Participants | Kazuya Kawasaki [KK] / Taichi Sunayama [TS] /
Ai Hasegawa [AH] / Junya Yamamine [JY] / Reiko Okubo [RO: PLUGIN] /
Miki Fukuda [MF: Media Design Research Inc.]
| Date | January 6, 2020
| Venue | Media Design Research Inc.

Maintaining the balance in an open community

MF　Following the presentations by members of FA and g0v in this forum, and based on analyses of these groups' activities, I would like to start this discussion around the question what developments we may see here in Japan in the future.

First of all, I think there are certain characteristic qualities about the communities around both FA and g0v as active organizations. The issue of community management is a key question that was also addressed in the closing discussion, and this is where I would like to pick up and continue with our participants today.

KK　What both g0v and FA have in common is a good balance in terms of open and closed parts of their respective communities. In other words, based on the perception of circumstances in the post-open data age that inspired this event in the first place, opening up too much can be risky, as it may cause problems like populism and agitation via the Internet. Design theorist Benjamin Bratton criticizes trends in design that are going too far in terms of openness, and refers to such practices as "design populism." On the other hand, when things are overly closed, that results in the co-called "filter bubble," or as sociologist Shinji Miyadai puts it, the dispersion of one's own interests and tastes in an "island universe"

(shima-uchu; consisting of exclusive groups of likeminded individuals). That's what is happening right now, not only here in Japan, but around the world. It's a question of how to design the balance between openness and closedness of a community, and in this age of fake news, I think the "image complex" methodology that they employ at FA to assemble multiple realities from multiple types of data in a fact-based manner, is quite an effective response to this problem.

AH I've been asking myself how the methodology of g0v could be adapted here in Japan.

JY I think the g0v community is structured in a very Asian kind of way. What I mean by this is that, rather than talking about things like philosophy, it's more a physical kind of connectedness. It's about being at a place together and having fun doing things together, and then it somehow turns into a movement before you knew it.

AH But in the case of g0v, isn't their strength more in things like hacking, and people with some sort of…

JY Technical skills?

AH Exactly. I think it's a bunch of people with knowledge and skills. Keeping things open, and encouraging everyone to contribute ideas – that's a way that wouldn't probably work in Japan. How do you advance and promote a discussion when you're getting only hackers to participate? I also think that, when you call for "technicians" to come together here in Japan, you end up with a group that consists of more or less the same type of people. Mostly male, for example.

There are huge differences in the art industry between Taiwan and Japan. If you look at the BioArt community, they are mainly minority kinds of people, belonging to or sympathizing with sexual minorities for example. So while it's kind of biased in Taiwan, it would be much more orthodox if you did BioArt in Japan.

JY A more academic kind of thing perhaps.

AH It's indeed different. Taiwan is more punky in that respect.

When you visit an artist's atelier in Taiwan, they usually have some political kind of flag put up, so when Chinese artists come along, they tend to be somewhat bewildered. I'm aware that the Taiwanese people are more politically minded, and they have a different attitude to begin with, so the question is how to design such kind of organization based on an understanding of such differences.

I imagine that the good thing about hackers is that, no matter whether they come from the right or from the left, they seem to be able to talk about anything in concrete and logical terms.

JY You mean, they don't get emotional?

AH I imagine a conversation to go like, "This is what the data say, so let's do it this way here, and then it could work if we assigned things that way there." In retrospect, that kind of warm-up work is probably a step that we neglected over here.

From ideological conflict to micropolitical discussion

KK Personally, I'm not understanding hacktivists, such as the people at g0v or the biohacking community, as activist groups with big political goals. Up to now, "political" to me seemed to be referring to an ideological attitude that demands you to either be pro or contra, like being for or against Trump for example, but it appears that the issues that have been arising recently are a bit more rooted in one's own personal life and position. In other words, not wanting one's sexuality or safety to be invaded is not a matter of conflicting ideologies, but it's about micropolitics.

That's why minute political inclinations rooted in everyday life are thoroughly discussed within communities, and there are opportunities for sharing and experiencing these things as body intelligence. So as a matter of fact, irritation caused by feelings of animosity or envy is directly linked to the political "A vs. B" kind of opposition. I believe that an active discussion that takes place somewhere in between, focusing a little bit more on "what is good/bad for one's own personal life," may ultimately lead to "political action" in the truest sense.

JY That's why g0v adopted the slogan, "Don't ask why nobody is doing this, admit that you are nobody."

AH An awesome slogan.

KK It's great.

JY And it's a really powerful one. The methods illustrated above lead to nothing but idle talk, without producing any results.

AH Just continued mounting behavior I guess.

JY Micropolitics is all about building-up while surely clearing all obstacles around, so

it's an extremely practical method.

KK Going back to Ms. Hasegawa's question how the methods of g0v could be installed in Japan, if you ask me, it would be best to start on the level of local politics. It's too big an issue if you approach it as a national matter, so I think it should be split up.

AH That idea of separation is great I think, but things like same-sex marriage, for example, aren't matters that can be solved locally.

JY The same-sex marriage discussion seems to go smoother in local municipalities though.

AH It does seem easier there.

KK I'm aware of cases like the Shibuya municipality, where they are proactively working out according to legal systems. By adjusting scales and problems, the political nature of it all gets adjusted as well.

AH But in the case of Taiwan, when people are under the control of China, they eventually face the huge problem of losing all kinds of liberties.

One thing I would like to know is how they approach things like problem setting in workshops, giving specific themes for individual sessions. Discussing a matter also involves addressing single aspects of it, splitting it up into subtopics that you discuss one by one until you're through with the whole thing.

KK But it might happen that you end up without feedback from the parts to the whole.

AH Exactly, and that's what bothers me. At the end of the day, it'll only leave you feeling impotent against politics. So I guess it's about how to connect these small things to the bigger narrative.

In this sense, it may be a good idea to try and do it in Tokyo. After all, that's where we're living right now.

JY I suppose it's possible to work micropolitical issues into one larger narrative.

KK I recommend talking to the people at Code for Japan, a group associated with g0v.

JY Also in terms of political issues.

KK Maybe g0v are actually adopting a kind of strategy where the aim is to build a remote kind of system where their plans may work out better. Like, for example, here in Japan you could argue that things in Tokyo won't change anyway, so you relocate to an "asylum" of sorts outside of the city.

JY An "exodus of the land of hope" so to speak. (Laughs)

TS　You're right. I'm actually quite supportive of such kind of detachment from the large currents of urban areas as a strategic move.

JY　I was quite impressed by the accuracy of vTaiwan that was launched by g0v. Didn't they also mention that, like vTaiwan itself and also their apps and web services, they are enforcing their policies in a somewhat experimental fashion while adjusting bits and pieces as needed, rather than putting them out in a final and definite shape?

The part where we're seeing system fatigue is where political decisions are being considered as something that is made by a limited group of powerful people that are always "right" and exert their leadership. Are there really people who have the necessary intelligence to handle the complexity of our age? What is extremely important here is the existence of a society that combines the methods and qualities of web-like collective knowledge and plasticity. In the case of g0v, that's a model that is transparent and at the same time also flexible.

KK　Exactly. But isn't the stacked mechanism of decision-making also the weak point of a flexible system? I wonder how they are handling this. Maybe it's all handled rather loosely in the first place.

JY　Even more than things like decision-making, to me it seems that g0v is first and foremost about doing things. Remember, they digitized 30,000 documents related to the government impeachment trial within 24 hours.

KK　It's very much a successful model case of collective knowledge.

"Information assembly" and how it could work in Japan

JY　There are individuals in the community that are actually able to take action, and thereby function as dynamos. This is how g0v are doing it, and they managed to get into the government that way. I think the work of FA was focusing on the creation of hard evidence for people to rely on, in times when information can no longer be trusted, and we cannot be sure what is true and what isn't.

Now that we have learned first-hand about the two groups' respective techniques, the question for us and this forum is what kind of action we could possibly take in the coming year. When we try and adopt the method of "information assembly" that we just

learned about from the members of FA, we have to ask ourselves where exactly we are supposed to look for the truths we need to reveal here in Japan. Maybe that would be issues related to Fukushima, or how they keep burning official documents.

AH That would be the practical side of things.

RO Eyal talked about creating art from digital junk.

AH That would be another thing to reflect on. What kinds of issues are there that could be raised from the digital junk that we have in Japan?

JY I'm interpreting the accounts of FA as being about individual perspectives on history based on large amounts of data, as opposed to stereotyped historical views that are established through mass media. Up to now, history used to be single-lane kind of affair, a narrative written by someone, but that has already caused some system fatigue. The evidence that emerges from the collective voice of the small people, however, is more trustworthy. In other words, it can be dangerous to rely only on one thing.

We could try and work in a way that highlights the contrast between the historical perspective as described above, and historical views that are built from digital junk.

AH There are in fact some major issues right now revolving around jurisdiction. There is talk about people at the Immigration Bureau who trample the rights of imprisoned persons under foot, but that seems to be raising little concern.

KK That's definitely a point.

AH First of all, we don't really know who those people at the Immigration Bureau are. It's a matter that should urge the media to do some proper investigations, so how come we don't know about it? Is it some kind of wrapping, or do they think we would question news as propaganda and not believe what they say?

JY In my view, when the media talk about neutrality, that always involves the question, "neutral from what perspective?" That ultimately creates biases.

KK As someone from Israel, Eyal has his own personal context, and that's why his commitment to human rights and politics is so convincing. But for us, I think there's no need to do it exactly the same way. In my view, here in Japan it would make a lot of sense to just extract the methodology, and use it to focus on such things as the problems with immigrants that Ms. Hasegawa has pointed out.

One could start by focusing on immigrants, or more specifically, foreign workers

for example, and on what's going on at convenience stores in this respect. What are the conditions for foreign workers employed at convenience stores? There may be discrimination, or even violence. On the other hand, there may also be communities in which foreign workers help one another. Compared to the level on which FA operate, this may look like peanuts, but I don't think it is. There are lots of surveillance cameras installed in and around convenience stores, so I think there's quite some potential for documentation here.

JY Indeed. There are also issues related to the Technical Intern Training Program in Japan. Creating evidence by digging up memories and representing them in some visible shape is a method that relates very much also to such cases.

KK As FA is of course about "forensic architecture," I think they're cleverly operating such things as urban settings, satellite photographs, media and geographical features. Now if I were to translate that into a Japanese context, I think it would be interesting to look for inspiration in such things as convenience stores, vending machines and surveillance cameras in the streets.

Providing the necessary technologies to obtain the necessary data

AH Along with problems, maybe we should talk at once about the technologies that can supposedly help us solve them. Like, "if we use this, and have those data, we can solve it." We could certainly try and think about what technologies we could offer them, and what kinds of data they could provide, in order to help them protect themselves.

JY Marko Peljhan, and artist from Slovenia, has launched a project called Arctic Perspective Initiative (below "API"), where he conducts research with various Inuit groups in the Arctic Circle. They collect all sorts of data – about places where one can't grow plants, about how the ice is moving, and how people suddenly end up on small remote islands. Information on movements of the ice is an important matter that their lives depend on, and in order to grasp the situation of the ice, they use a mesh network for which they have installed sensors at various places to measure topographical changes. The Inuit people are originally nomads, and their thinking originates from the idea that the government's policies, demanding them to settle down, is erasing their lifestyle and their identity. The problem is now to work out ways to provide them with the technologies they really need.

Reiko Okubo (O) In their project revolving around the prison in Syria, FA chose the method of generating visible facts by creating 3-D computer graphics based on interviews with a number of people, because there exist no photographs of the place. I think that would also work in the Immigration Bureau case.

KK Certainly also with such things as false accusations. I think it's a style that is in a way very architectural. You have some pieces that you build a model from, and keep playing around with it, and that step-wise operation is in my view very much an architectural process.

RO There were also emotional aspects that were reflected though, like the man who felt like he was in a circular building.

AH It works really well, also as a documentary.

KK It does indeed also reflect emotions.

Installing the methodologies of FA in Japan?

AH Imagine FA were to launch a project on the phenomenon of chikan (gropers) in Japan. What kind of technology do you think there is to employ in order to stop chikan?

RO We would definitely need to do interviews with those who molest people.

JY Ask them what types of people are easy targets for them, for example.

RO And what techniques they use. Such interviews would surely produce some data that could be visualized.

MF It's certainly important to talk not only to the victims, but also to consider speaking with the assailants. It happens that the assailants themselves are at once victims, so it's actually quite complicated.

JY They did a good job interviewing assailants for the movie "The Act of Killing." What I wanted to say when I referred to the API project is that it's meaningless to provide people with something that they don't really ask for. You have to listen to people carefully first, and then give them the technologies that they can relate to. I think that's also the idea behind providing people with systems to work with, like g0v are doing.

I wonder if there could be something like a warning system that rings an alarm bell whenever a foreign worker comes under attack or becomes a victim of biased views. There must be some kind of technology that, in the case of chikan, would alert the public in

terms of who is likely to become a victim, and also in terms of potential recidivists.

AH How to deal with domestic violence is another issue. When looking at Japanese news reports, there are ridiculous court cases where fathers who raped their children aren't even convicted. Isn't there any technology that we can use to rectify that?

RO Such data could certainly be translated into computer graphics in the style of FA's projects, and I believe that the quality of those could be improved to a level where the results could be submitted to courts as pieces of evidence.

TS Forensic analytical investigation in the truest sense…

KK There seem to be cases where they recreate situations in court, or show visual panels, but that may also cause harm to the victims.

AH The question should rather be what kinds of data are there that one could extract evidence from, while avoiding such measures that definitely cause secondary damage. If we were to given children something to protect themselves, we would need the parents' consent first, and when they understand what it is about, they won't probably allow it in the first place. It can be extremely difficult for third parties to get involved in family matters, and that's the point where those who design technologies are yet to come up with something effective.

Evidence created from complex and comprehensive viewpoints

KK When Bess talked about art at the end of her presentation, I found that quite impressive. But I felt kind of uncomfortable with the term "saigen suru" in the Japanese simultaneous translation. I initially interpreted that as referring to "representation," but then I gradually understood that it was more something like "simulation." Simulating reality based on various social issues and the respective grounds can be artistic work as well. That's in fact the power of art, and I actually think that such simulation does require extraordinary powers of imagination. Projects revolving around the visualization of large amounts of data, for example, necessarily involve analogies and leaps of logic. It's in a way similar to sign language that, different from spoken language, requires imagination in order to complement the linguistic discrepancies. Such creative translation ability across different views and is also what is required from art. With this in mind, it is of great importance to look at the various digital tools they are using at FA. For their reconstructions of reality, FA

employ "multi-perspective networks" of tools, techniques and characters that are different from the one-directional "perspective" that one normally associates with a camera. Uexküll's "Umwelt" or "Multiverse" concept seems even more convincing to me now.

JY Good point. Regarding cameras and documentaries, there are pieces shot from certain angles to generate narratives, but at the same time, one can also say that they do away with objectivity. Multiplicity is a means for overcoming the problem of one-dimensionality, however that doesn't necessarily mean that multiplicity is infallible. By incorporating multiple perspectives onto certain matters, we relativize and objectify them. This results in multiplicity, and if it were now possible to capture the world itself as 3-D data, like in 3-D computer graphics, we could ultimately create a situation that contrasts with one-sided perception. However, the expressive possibilities of realizing such things by way of imagery are limited. This is where FA utilize the power of computational design, to represent things through rather realistic images. I think that's what makes their work so convincing.

KK I agree. That's why also the issues related to crime and violence that Ms. Hasegawa has been raising must not be regarded as problems of victims/offenders, as that only gives you a one-point or a two-point perspective. So the question that seems much more related to the FA style of solving problems is to what extent that victim/offender becomes a pluralistic subject of investigation.

JY The problem here is that there can't be a third-person camera.

KK Indeed a very tricky problem.

JY That's why there can be no objectivity. And then there's also what is called "second rape," or in other words, the troubles that come with talking about experiences.

AH I think there are all sorts of issues, including problems that can be solved after the event, and others that need to be prevented in the first place.

KK By the way, with sensors I think it is dangerous to focus on individual bodies. An individual body may be helped, but there are a lot of things that it discloses "in return." Information on that body's physical condition, present location, and people it is seeing – all these things it has to reveal, and that raises some serious ethical problems. So what I like about FA and that Arctic project is that their methods are comprehensive, as they're not focusing on individual bodies, but they're looking at groups of people. I think it's about the patterns in those groups that become evident.

AH That's also very convenient regarding the use of public data.

It's like a thread or a file where you have a list of various problems, and everyone involved posts suggestions as to what kinds of data may be useful for solving this or that problem. Anyway, it appears to me that the only chance that we have is to get together, collect everyone's comments regarding problems, research and solutions, and from there try to work out something that seems feasible.

I would really like to do some research on immigration.

JY Personally, I've been interested in the problem of refugees of late. There's a community of mainly documentary filmmakers, called "DOCU Memento." I went and talked to them, and that made me realize the importance of the moment when topical views meet universal problems. The subject of political prisoners, for example, is a topical one, and a matter of reminiscence. But what it makes visible is the universal problem underneath, and when taking a comprehensive look at it, I thought that the kind of accumulation of multiple perspectives that FA are constructing their computer graphics from, is probably a method that can reveal the true face of society. Starting with collecting topical stories related to the refugee problem, if one could create some kind of mapping to overlook society, that would eventually highlight topical narratives and the structure of society at large as two parallel axes. That's what tells me that methodologies like those of FA may work best.

TS So it's first and foremost about taking action?

JY Right. It's great to get together and talk about things, but it's even better to actually do something.

AH And it will surely make massive waves.

JY Anyway, it's definitely better than asking why nobody is doing this… (laughs) That's the worst thing that can happen.

KK While referring to the activities of g0v and FA, it may be possible to continuously develop practices based on that "bricolage" of digital tools.

TS Technically, it's possible.

I think it would be good to collect case examples from around the world, as I'd really like to know how technology can respond to the specific problem awareness at all kinds of different places.

In Japan, there is a project called Sensuous City,[1] mapping places where people like

to kiss in order to determine the "degree of sensuousness" (laughs) in various cities. To me, the question how aspects of art and visual creation are handled here plays an important role.

JY Talking about visual creative work, there is a collective in Palestine called Decolonizing Architecture Art Research (DAAR). They make entire refugee camps into "social sculptures" by turning them into monuments.

TS Regarding the idea of ultimately finding common ground in designs that translate research and analysis into physical shapes, one can understand that as a developed form of data visualization. What is particularly intriguing here is also that the results aren't just somehow visible, abstract forms, but there is in fact a pretty strong material quality that is manifested. What FA are doing is basically data mining, whereas I think it's the way they are tuning the texture of every single bit of data, that creates in the viewer a unique sense of reality.

JY In my view, the strength of FA lies exactly in the power that their works exercise as data sculptures. It seems to assume monumental dimensions that radiate to everyone who looks at those works.

KK What the people at FA are very good at is not only creative work, but also research activities. They're exceptionally good at advance planning as to what kinds of tools to use, or how to mark out territories, and that eventually comes to fruition. I concluded from this that design research as an artistic discipline will be increasingly important for both critique and practical work in the future.

JY I suppose it's impossible to get any result if you can't imagine to a certain degree – maybe 50, 60 percent – what the final outcome will look like at the time you start a project. Take FA's Rafah project for example. I assume they knew to some extent what the final output would look like, already at an early stage. And then there must be a certain point at which they shift gears from "research" to "revelation," which is probably just another one of those things that they eventually determine while moving ahead. What I learned at this forum is the importance of creating something with a strong visual impact, for a project to propagate.

[Note]

1 Sensuous City (LIFULL HOME'S) https://www.homes.co.jp/souken/report/201509/

Speakers' profiles

Eyal Weizman | Forensic Architecture | UK

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Founding director of Forensic Architecture and Professor of Spatial and Visual Cultures at Goldsmiths, University of London, where he founded the Centre for Research Architecture in 2005. Published over 15 books, and has conducted research and taught at universities worldwide. Was a Global Scholar at Princeton University, and a professor at the Academy of Fine Arts in Vienna. Member of several managing and advisory boards, including the Technology Advisory Board of the International Criminal Court and the board of trustees of the Centre for Investigative Journalism. Founding member of the architectural collective DAAR in Beit Sahour/Palestine. Studied architecture at the Architectural Association, graduating in 1998, and received his PhD in 2006 from the London Consortium at Birkbeck, University of London.

Christina Varvia | Forensic Architecture | UK

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Coordinates projects, assembles teams, oversees research and the development of new methodologies as Deputy Director. Studied architecture at the University of Westminster (RIBA Part I) and the Architectural Association (AA; RIBA Part II). Previous research – that she deploys through time-based media – involves studies in digital media and memory, as well as the perception of the physical environment through scanning and imaging technologies. Currently teaches as a Unit Master for Diploma Unit 3 at the AA, and is a member of the Technology Advisory Board for the International Criminal Court.

Forensic Architecture

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A research agency based at Goldsmiths, University of London, consisting of architects, artists, filmmakers, journalist, software developers, scientists, lawyers, and an extended network of collaborators from a wide variety of fields and disciplines. Founded in 2010 by Prof. Eyal Weizman, FA is committed to the development and dissemination of new evidentiary techniques and undertakes advanced architectural and media investigations on behalf of international prosecutors, human rights and civil society groups, as well as political and environmental justice organisations, including Amnesty International, Human Rights Watch, B'tselem, Bureau of Investigative Journalism, and the UN, among others.
https://forensic-architecture.org/

Bess Lee | g0v | Taiwan

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Currently works at g0v jothon (a task force for hosting the g0v bi-monthly Hackathon and g0v Civic Tech Prototype Grant) as a Chief of Staff. Was an art administrator in the artist village who helped artists work with the community. The organizers and executive team behind the g0v.tw bi-monthly hackathons since 2012, the members of "jothon" also work on g0v community infrastructure (infrathon), and launched the g0v Civic Tech Prototype Grant in 2016.

g0v

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A community that advocates transparency of information, also known as open data. We are passionate coders, designers, activists, educators, writers and citizens from across Taiwan. Through working together to bring data into the open, we hope to build a better Taiwan for its citizens. To join g0v, all you need is to be ready and willing to use your expertise or energy for our cause.
http://g0v.asia/

Ai Hasegawa | Artist | Japan

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Artist and designer. Employs techniques such as Bio Art, Speculative Design and Design Fiction to produce works with an emphasis on subjects related to technology and people. Obtained her MA in 2012 from the Design Interactions Course, Royal College of Art in Britain, and worked as a researcher at Design Fiction Group, MIT Media Lab, from 2014 to 2016, when she received her MS. Project Researcher at The University of Tokyo since April 2017. Has been holding exhibitions in Japan and abroad at MORI ART MUSEUM and Ars Electronica among others, and won an Excellence Award in the Work Art Division at the 19th Japan Media Arts Festival for her work "(Im)possible Baby, Case 01: Asako & Moriga."
https://aihasegawa.info/

Kazuya Kawasaki | Speculative Fashion Designer | Japan

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Speculative fashion designer, design researcher. Director of Synflux. Born 1991. Completed a master's course (Design) at the X-Design Programme at Keio University, Graduate School of Media and Governance, and is currently enrolled at the same programme's doctoral course. Received numerous awards including a H&M Global Change Award, a Japan Media Arts Award (Art category), a Dezeen Award Design Longlist, and a Starts Prize. Was invited to participate in the Dutch Design Week (Holland) and Design Indaba (South Africa), and involved as supervisor/editor in the publication of *Speculations beyond Human-Centered Design* (BNN, 2019).
www.kzykwsk.tumblr.com/

Taichi Sunayama | Architect & Artist | Japan

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President of sunayamastudio. Lecturer at the Kyoto City University of Arts, Faculty of Fine Arts, Department of General Science of Art. Other activities encompass production, design, planning and criticism from standpoints focusing on informative and material qualities in architecture and other areas in the greater realm of art. Graduated from Tama Art University (Sculpture) and moved to France in 2004. Graduated from the École Spéciale d'Architecture in Paris in 2008, and subsequently worked for several architectural design offices and structural design studios. Returned to Japan in 2011, and graduated from the Graduate School of Architecture / Department of Architecture, Faculty of Fine Arts, Tokyo University of the Arts. Presently works at his own studio in Tokyo, while teaching contemporary art and design theory at the Kyoto City University of Arts. https://tsnym.nu/

Junya Yamamine | Curator, Contemporary Art Center, Art Tower Mito | Japan

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Curator at the Contemporary Art Center, Art Tower Mito. Born 1983. Holds an MA from the Graduate School of Film and New Media, Tokyo University of the Arts. Prior to his current position, he worked at the Tokyo Photographic Art Museum and the 21st Century Museum of Contemporary Art, Kanazawa. Has been involved with a broad range of exhibitions based on media theory and encompassing such varied fields as new media and contemporary art, including "Hello World – For the Post-Human Age" and "Resistance of Fog – Fujiko Nakaya" (both at Art Tower Mito), as well as "3D Visions," "Beyond The Naked Eye" and the Yebisu International Festival for Art & Alternative Vision Vol.4-7 (all at the Tokyo Photographic Art Museum). Guest curator at IFCA (2011, Slovenia) and "Eco Expanded City" (2016, WRO Art Center, Poland), and participant in the Ministry of Education, Culture, Sports, Science and Technology's overseas research fellow program in 2015. Member of the Oral History Archives of Japanese Art, and of the "Asian Art Award supported by Warehouse TERRADA" selection committee in 2017 and 2018.

(Profiles as of the time of this Forum)

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