

Jacob Appelbaum

Talks

2005–2013

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Bringing Technology and New Media to Disaster Areas

DATE: December 28, 2005

EVENT: 22nd Chaos Communication Congress (22C3)

VENUE: Berliner Congress Center, Berlin

ABSTRACT: A discussion about technology, culture, the Creative Commons and the media with regards to disaster areas and warzones.

LINK:

<http://events.ccc.de/congress/2005/fahrplan/events/478.en.html>

AUDIO: http://chaosradio.ccc.de/22c3_mp3-478.html

VIDEO (INTERNET ARCHIVE):

<http://archive.org/details/22c3PersonalExperiencesBringingTechnologyAndNewMediaToDisasterAreas>

VIDEO (YOUTUBE): <https://www.youtube.com/watch?v=PaW1ge-tTVo>

JACOB APPELBAUM: Today, I'm going to talk about a couple of other things other than just Iraq and Katrina. I'm going to show you a bunch of photos. I had spent a bunch of time blabbering on in slides, like where I'm from, what kind of crap I do, where I've been recently, why I care.

I'm not even going to bother with any of these slides, because I don't think there's any point in showing you a bunch of slides. I'll just show you what I saw, and I'll tell you a story. I think a story is more moving. I'm going to start off by telling you about photography. I see the world through a camera. I work with computers for non-profits usually, but when I'm not doing that I take photographs.

For the last two years, I was a caretaker for my terminally ill father. In December of last year, one year and eight days ago or something, my dad was murdered. My dad was a heroin addict and so, as a

result in American society, nobody really cared about him. It was a really difficult time for me, because the situation was very complicated and there was really no justice for him.

Due to the fact that he was a drug addict and due to the very peculiar way in which he was poisoned, the people that killed him got away with it. The sheer incompetence of the San Francisco police department, where I'm from in California, is astounding to me. When we talk about the oncoming police state that can bust anybody for doing anything, that can come down on all of us for little infractions, this kind of stuff makes me doubt it.

But at the same time, it really is a value judgment. People that don't care about other humans, that devalue other human beings. They're not going to really worry about justice for them or punishing them, because it's just one parasite wiping out another parasite. These are just a couple of photos of my father right before he died. There he is dead.

This right here was the motivator for me to stop contributing to a world full of bullshit evil. It was the motivator for me to get off my ass and connect with the things that I'd been working towards already. Like I said, I'd been working with non-profits, places like Greenpeace, Rainforest Action Network, mostly environmental stuff, but also occasionally with human rights activists. All these stories about people being victimized, about really terrible things happening, the never really hit home for me until I saw this photo that I took.

It was almost like I wasn't even there when I took this photo. It was like another world. It's pretty much this moment that I decided that I had two choices. This was that I could take something really terrible and make something else really terrible or I could take something terrible and make something great.

I decided that I needed to leave the United States because it wasn't a very positive place for me. After some amount of time, I did this, and I went into Iraq. I had some connections in Greenpeace that allowed me to, luckily, it allowed me to get past places that you otherwise would not be able to.

I flew into Istanbul, and I left a couple of documents behind that would keep me safe in the event of someone kidnapping me, supposedly. Although I basically had no regard for myself, I decided that I wanted to go and connect with people who had been in a similar situation as mine, connect with people who the world had left behind.

I wanted to basically make transparent what other people knew, but they didn't really know. They didn't really see it and I wanted to connect people to it. I started blogging about my travel in Iraq. While I was traveling, I let people ask questions and I did video interviews with local Iraqis. I went out on the streets and I took photographs of people. I helped set up Internet access at Iraqi voting stations. I climbed some mountains in Ahmed Awa, which was where Saddam dropped chemical weapons during the Anfal campaign to commit genocide against the Kurds.

I basically just settled in there for a little while, not very long. I talked to people and asked them how they were doing. I asked them what they wanted. To this day, I still talk to my friends that are in Iraq. I didn't travel with the US military. I traveled by myself in a taxicab from Turkey. Although I did run into the US military several times, they didn't really cause me any trouble.

The way that you would want to, if you were interested in crossing over the border is, you would fly from Istanbul to a city called Diyarbakir. At Diyarbakir, you would take a taxicab to the border city of Zakho. The way that you would take this taxicab is by

basically either speaking Kurdish or Arabic of which I speak neither, though the very little teeny bit of German that I do speak, probably saved my life a number of times.

Essentially, when you get to the border, you have some money in your passport, you hand it over to them. When they ask you why you're there, you tell them that you're a tourist. They'll laugh because they think that's pretty funny, and they'll flag you across. One of the notable adventures on this taxicab ride from Diyarbakir to Zakho is the fact that you'd drive through the holy city of Batman, which is excellent. It's a good sign. You're on your way to doing good things.

Once I had crossed over the border, I met with my contacts that I had previously had through Green Peace. They handed me several firearms. We got into their car and drove away. We drove through a small village of the Yezidi or Yazidi depending on who you ask.

They are a group of people that worship a peacock by the name of "Melek Taus," which for the longest time I've been interested in seeing. I went and I asked them what it was like for them during the war, what it was like before the war, whether or not they were happy that Saddam was gone. It was quite a big game of telephone because it was English to Arabic to Kurdish to the local dialect that the Yezidi spoke and back. There were three translators, me, and some guy.

It was quite a long conversation, but these people were actually, surprisingly enough, very happy with the fact that America had invaded because it was beneficial to them. But that's to be expected when you're talking to people on the Kurdish regions of Iraq because they're the people that primarily benefit.

Essentially, while I was traveling through this region talking with them, I've been traveling with Arab

guards from Baghdad. These people are very kind, very nice to me. They took me to a city by the name of Erbil or Arbil depending on who you ask. Those people took me to a place where I'd be safe, and I stayed outside of the wire, pretty much everyone stays outside of the wire. The wire being the green zone in Baghdad or these are like military bases where the US Military sits.

If you're in a situation like this, the only time that you ever want to talk to the US Military is when you tell them that you're in-charge and you're going to be going now. Because they could be very dangerous and you could end up very dead very quickly.

In Erbil, I visited a number of sites and I interviewed a number of people. One of the things that I saw was a zoo full of animals that were not native. I went in and documented the zoo, took photographs of the animals.

I felt pretty bad about the animals that were there. They were pretty much the most abused animals I had ever seen in my entire life. The animals in the zoo were quite like everyone in Iraq. They were all very afraid of the master with the boot on its neck.

I decided at that point that I needed to start asking them questions. These questions that I asked them, I collaborated with people online. I had a blog where I asked people to ask questions from different perspectives. Everything from "Are you happy here now that the American forces are here? Do you feel safe now? Do you think that every day is a good day? Do you feel free?"

Just really simple questions, questions ranging from that to things like "Do you see any profits from oil? Do you see anything changing? Have you had any one in your family killed? Has anyone that you know been killed? What is it like here for you? What is your life like?" Pretty much every one that I talked to that

was Kurdish was very happy about the Americans. Because the Kurdish region as I said before, had been liberated by the Americans. But the Arabs that I met from Baghdad were not so happy.

The standard operating procedure they told me of a car driving into an American convoy was to have it shot dead, stop. They'd shoot a 50-caliber machine gun across the engine block of the car through the windshield and kill the driver, no questions asked, just because you might be a bomber, just because you could pose a threat to someone.

Most of these people have a university level education, the ones that I've been talking to. Their computer science degree...I think this will probably amuse most of you...means that they have been able to program in Fortran, Windows 3.1 or Windows 95 if they were really lucky.

A lot of these people all served in the military. Most of them fought in the first Gulf War but not in the second Gulf War, including a sniper who actually admitted that he had shot American soldiers. He was quite interesting. He basically conveyed that he felt very bad for having done this. He every day saw the repercussions of constantly killing each other, what the war was doing, and what it solves. He said that it was worse now with the Americans than it was with Saddam and that even though it's possible it could turn out better that he felt that hundreds of thousands of people had been killed by the Americans.

Just recently I heard my glorious, George Bush, in America saying that the body count was around 30,000, which I'm not sure how he arrived at that figure because it's pretty much impossible to keep body counts like that. I mean 30,000 reported deaths by American corporate media, right? That must be how he came to that.

These engineers needed some help with a lot of

their software problems, so I brought them Knoppix disks and I taught them how to do some network penetration. We had a long conversation about security, so a lot of these Iraqi engineers walked away learning how to do stuff with writing shell code and map and using just simple things to more complex concepts so that they have a better idea for keeping Iraq a little more secure. We turned them on to free software instead of using proprietary software, which was I think perhaps a little useful for them.

One of the things I needed when I crossed over the border was a photocopy of my passport, which if you're going to cross across the Turkish/Iraqi border, you need to have that so that you can give it to the Iraqi and the Turkish guards. Another thing that would be helpful for you to have is press passes. I suggest that you make your own press pass. Do not work for a press agency unless you, of course, do work for a press agency. Don't forge a press pass that says you work for NBC or CNN or something because you're just going to get yourself in a lot of trouble if anyone goes digging. Make up your own press agency instead. It works out a lot better. Your own phone numbers, your own addresses, things like that.

If you're going to go, also leave your plans, your intended destinations, and all these things in countries that are nearby to you. Don't leave it in, say, America and hope that someone there will be able to find you in the event of your kidnapping and ultimate beheading. You'll probably also find yourself in a situation where you'll...since this is Europe, you'll probably be very uncomfortable with this next statement, but you may end up having to carry firearms to defend yourself or at least in order to keep yourself from being the low-hanging fruit on the tree.

While I was there, I had an AK-47, a Glock, and a Browning 9mm because these sheer gun on my

shoulder, one on my back, one in my pocket, those things stood out much like a white American with weird hair and earrings. Those things probably kept people from bothering me when there were other people that looked a lot easier to bother. Certainly, though, you would never want to go out alone. Always travel with other people. When you do go out, make sure you have a very good reason.

Some of the video interviews that I've done I put up online, almost all of them actually. They're under the Creative Commons. While I was documenting most of this with the photography, videography, I put it all under the Creative Commons so that people could take it for free because the information was more important than whatever intellectual property and whatever money I could possibly make from it.

The people in Iraq are in a very bad place. It's funny to me that it took my father being killed to really realize that, to bring myself around to feeling connected with someone else. It took a tragedy for that to happen. That's quite unfortunate. Hopefully, it doesn't have to happen to the rest of you that way. Hopefully, you can take the time that you have on this planet and do very good things. People like Dan Kaminsky and Rop Gonggrijp, these people that are really a part of the scene, that are really contributing, we should all strive to be more like them.

Those people, developers of free operating systems, those people are giving things to the world that has a tangible quality if it improves the life of these people. We should no longer stand idly by letting these things happen because we're all responsible, ultimately...socially, ethically, morally...for the terrible things that have happened in Iraq and around the entire world.

To touch on some slightly nerdy subjects here, the way that I was able to distribute the videos while I

was blogging, because of high demand, was because of BitTorrent. The legitimacy of BitTorrent shouldn't ever be questioned. Any peer-to-peer software can be used, but I was using BitTorrent to distribute my videos. As a result, it was actually affordable for me to do so.

These Iraqis who otherwise have never had a voice before, who no one had ever listened to them before, no one outside of Iraq has ever even met them because they're not even allowed to leave Iraq because no country in the world will take an Iraqi citizen because they could be a terrorist or some other bullshit excuse that denies them their basic right to a standard of living that is acceptable, using BitTorrent, we were able to get it out there, peer-to-software.

However, the way that we had to get online was using what's called a very small aperture terminal or a VSAT. There are several other methods for communication when you're in a place like Iraq. Coincidentally, it also works in disaster areas like Katrina. You can get stuff like a Thuraya sat phone and get Iridium gear. You can get Hughes, Tachyon, some VSAT.

The VSAT channels that we were using are monitored by the United States Government. There is definitely no question about that. The United States Government...oh, I don't know. Name a three letter acronym. They all read my blog. You'd be surprised that they don't hide their reverse IP information, but they don't. Maybe there is a good reason for that. Maybe they wanted me to know.

During my time there, I actually was contacted by what I believe is a United States Navy intelligence officer who came to the area where I was and just sort of told me maybe I should go home. Maybe it was not so safe there and maybe I should get out of here because, really, this isn't the place for me.

I pressed on. Some of the things that I saw were

pretty amazing there. I mean it's hard to fathom but there are abandoned buildings along the highways there that when you drive through them and you stop in these buildings and you look inside there are drawings on the wall that children have done of helicopters shooting their parents with machine guns and rockets blowing up buildings. Where do you suppose those helicopters came from? I don't think they were made in Kurdistan probably. I imagine they probably weren't paid for with Kurdish dollars either.

Again, I found myself just feeling really awful about what we've contributed to even though we don't all willingly contribute thinking if that's what we're contributing to. We certainly do contribute through other means, when we pay our taxes, when we are silent when we hear people being bigots or racists, homophobes, when we hear people being xenophobic, when we hear them being nationalists.

We're contributing when we don't shut them up through intelligent rational discourse, through transparency, through showing them that what they're doing is wrong and that these humans in Iraq are equal to all of us. Just because they speak another language, they look a little bit differently, because they have a different religion, they're still humans.

Unfortunately, there seems to be a problem in my country where we can rationalize bombing and killing these people. Surely I thought that that was impossible for it to ever happen in the United States though. Certainly, if something terrible like this were to happen there, people in America would care. They would not stand for it.

I thought that that was the case until Katrina hit. When Katrina hit, I was working doing some bullshit programming job somewhere, and my company had just laid everyone off. One night while at a party in San Francisco, I heard a bunch of people saying, "Oh,

turn off that television. I don't want to hear any more about this bad news going on in New Orleans and in Houston. I don't care about those poor Black people. Seriously, who cares about those people?"

I was so infuriated that I turned the television on, up louder, and I stood in front of it and took the remote and asked them how it is that they could deny the fact that these humans are suffering. That they could just go about having a party, having a good time while these people were living inside of the Astrodome or while there were people floating in the rivers, in the streets.

How, when this little girl is staring down at the remnants of her family of her neighborhood and her friends, people could just stand idly by. I heard people blaming them for their poverty. People blaming them for their crassness, for their lack of education, how they couldn't get out when they have been so aptly warned.

When I got there and I talked to these people, I heard stories that amazed me, stories like when they were trying to cross the bridge from New Orleans into Algiers, which is on the other side of the Mississippi river, I heard them saying that the police turned their guns on them and said, "No fucking niggers on this side of the river. Thank you very much," and then cocked their shotguns.

Can you imagine that happened in my country? I couldn't imagine that. I couldn't fucking believe that. That was so absurd, so enraging, so angering to me that I decided that I would expose that. I would blog about it, and I would write about it. Lots and lots and lots of people saw this.

Tim Pritlove, thank you very much for the support that you have given me during this trip. He had hooked up us with some video streaming, and he had also written about us a little bit in his blog and linked

us around. Thanks to that attention, a lot of the photographs that I've taken here were published in European newspapers, which is really awesome. They were all under the creative commons, so there was no question about any fees for the publishing of the photos. Anyone could publish them anytime just to show it.

I interviewed these people. I infiltrated through the security of the Astrodome along with one other reporter who said that the security situation in the United States with regard to the press was something akin to the USSR. I thought, "This is my country? What's going on here? I don't understand. I mean, why? Why is this happening?"

When we were in there, we were almost forcibly removed twice. My traveling partner, Joel Johnson, who you may know from Gizmodo, he was actually removed from the building, and they almost arrested him for this because this was not right for him to be inside. This was like a special place. The reason it was a special place is because when I asked people how they were being treated, they didn't have very nice things to say. They were being treated pretty badly. There were people whose civil liberties were just entirely stripped away. It's pretty amazing.

People who in order to have a bed in this shelter had to go through strip searches because they look like they might be gangsters, who weren't allowed to have radios because Black people listen to rap, and rap incites violence, pretty amazing. That's a little bit of a disconnect. I believe it was George Bush's mother that said, "What are they so upset about? It seems like they've gotten better now than they ever had it before." It's kind of a disconnect. It's like these people aren't human or something.

I hooked up with IndyMedia in Houston, and we decided that we were going to set up a radio station.

We thought we go through the proper channels. We got the FCC permits and everything. Then the bureaucracy at the Astrodome kicked in. They said, "Oh, you can't use our power here, and your FCC permits say you're only allowed to broadcast in the building. So I guess you can't have your little radio station."

The purpose of this radio station was to help these people. To give them information about people that have been found, children that have been found, people who have died. Information on jobs, things to help boost their morale things like, "If you want to come, the first hundred people get free movie tickets," or dispersing money, just general freedom of information.

They said the only way you can set up that radio station is if you get 10,000 radios with batteries, and you distribute it. So we got 10,000 radios the next day. They said, "There's no fucking way that you're going to ever get those radios in there." What happens when they have freedom of the dial? Freedom of the dial, what is that freedom of the dial? What if they were to tune to another radio station? What if they were to listen to that rap music?

[laughter]

Jacob: So I dug up all the information on all the bureaucrats and post it online, and they got some phone calls. It was posted around some pretty prominent weblogs. Some people, like Shany Jordan at Bo-ing Boing, really supported me in this endeavor. Well I think they got more than a couple of phone calls anyway. Eventually, they caved, and we were able to get the radio stations set up. They only let us set up the radio station outside though.

At this point, I've pretty much given up on doing anything else here. So we collected some hardware donations, and it was at this point that I had a call to arms from a friend that I've worked with previously.

He said that they needed some help in New Orleans. It was at that point that I decided it was time to go. With my partner and a van, we load it up with all the supplies that we could possibly fill. Because you would create an unnecessary burden on the disaster area if you were to come in and ask for their meals ready to eat, their water, their medical supplies.

So we brought a bunch of stuff, enough stuff that we could hopefully share with other people. We also brought a bunch of computers. We also brought Internet access. Because that, my friends, is what's really important, information is the ability to send information, and the ability to have an open network, so people can receive information.

We left, and we drove in to New Orleans by way of Baton Rouge. We did satellite reconnaissance using Google maps so that we could have some semblance of an idea of what it would be like on the road. It just so happens that most of the roads were flooded, so getting in poses a little bit of a challenge. One of the wonderful things though was that we saw some roads that were not flooded that were very clearly not under military watch. So we snuck around the checkpoints. I'm just stopping here for a second, so I can show you some of the select photographs.

I took out the photos of dead bodies that I took because I figured this was a depressing enough talk as possible, and I wanted to somehow talk about how we hadn't lost the war and all that nonsense. Well it doesn't matter.

So we made contacts with US military people over the telephone, and through some clever social engineering we were able to convince them that, yes indeed. We were allowed to go inside and that, yes indeed, they were going to let us and, yes indeed. If they could please just tell everyone below them about that, we'll be very happy. Thank you very much.

The way that was possible was by talking to people on the ground who identified needs and had given us certain pieces of information. At the time, the radical anarchist collective that we were working with had not been named. It is now called the Common Ground Collective. Those people had basically stopped serious race riots and had set up or started to set up a medical clinic. They've also set up food in Algiers. This is the place where it was totally abandoned by the Red Cross. The National Guard was there, but they weren't really doing very much.

There were strange white militias roaming around throwing people of color on the ground thinking that they were looters. In this context, a looter is someone who is trying to get clean drinking water so that they don't die. The police of course really did nothing in this situation. We all know the story. George Bush told the Canadian government that we didn't need their help, told the rest of the world we didn't need their help, and like the stubborn bigheaded fuck that he is, all these people who needed our help died, people sitting on their roofs for days at a time.

Although the Canadian government, much to their credit, actually arrived in parts of New Orleans before the American government did. Royal Mounted Canadian Police landing and saving people because at FEMA, the Federal Emergency fucked-up Management Agency, I think something like that, was getting volunteer firefighters from all over the nation to come down and help.

But before they could help, they actually had to, it's funny, watch history at FEMA classes for, I think, a week so that they could learn about the history of FEMA. Then they used them to hand out fliers in cities nowhere near the disaster. FEMA also did stuff like cutting the communications telephone lines of everyone around. I believed it was the City of Gretna,

maybe. I'm not exactly sure, so don't quote me on that. But they'd cut communication lines, so we realized that we had to have wireless connections for everything.

We had noticed also that the cellphone towers had been taken down, in some cases by the hurricane, probably other cases just by other people. We were able to see that they had set up CALS, which were basically portable clusters for cellphones. We were able to use E-Video, which is a 3G network for sharing out, and setting up a lab and media center, so that we could get people to register for FEMA, which is basically worthless, but they needed to register for FEMA so that they could get money, supposedly.

During that time, the cellphone network was very much on and off. Most of the people that were there were there because they were seriously ill, seriously poor, seriously disabled, seriously distraught, without transportation, abandoned by their government, abandoned by their fellow countrymen. What ended up happening is that it's still happening. New Orleans is still in a bad place. It's not nearly as bad as it was here. There was a point while I was in New Orleans where a dead body sat on the street for 10 days, in the sun, 10 days, at least. The guy didn't have any shoes on and the soles of his feet weren't dirty. He was so bloated that you wouldn't know how he died.

The police, when we pleaded with them to, "Please, please, come clean up this body, because there were children that lived right next-door to it. He said, "Oh, that's not my responsibility. That's someone else." The military, all of them and the police, and even the Blackwater Mercenaries, operating on American soil with fully automatic machine guns, they too had no responsibility for that.

Through the use of, I believe it was podcasting as well as being on the radio. Amy Goodman was able to,

with Democracy Now, actually record the police saying that. She went up and said, "Is it your responsibility to clean up this body?" He said, "No, no, no, that's someone else's responsibility."

She said "Who, that guy over there?" "Yeah, that's the guy." She goes over to him, same thing, keeps going, keeps getting the same run-around, and then she publishes it online. Miraculously, on the 10th or 11th day, they cleaned the body up.

By getting the word out about what was happening in these areas we were able to affect some change. It made me realize that it's not totally hopeless, but it's pretty goddamn hopeless, a pretty bad set of things that happened in New Orleans. There are a lot of military checkpoints inside of New Orleans. The way in which I was able to get through them is the same way that all of you guys hack your firewalls, and hack boxes, in your legal lab of course, identifying the systems at work and exploiting the weaknesses that are there.

I, supposedly, joined a group called Part 15, which was a loose organization of wireless nonprofits that were working together in order to restore communications in the region. While this was true, I was primarily working with the common grand collective in order to bring medical supplies, food, water, Internet access and just general help to people who had gashes in their head, that were three inches long, and no one was going to give them medical attention.

And people who were 55 years old with gangrene and diabetes and were being left to die in their house by their government, people who had no roof anymore. When you walked down the street in New Orleans, you'd see houses with lights on. The reason that their lights were on is because those people had died while they were asleep. None of those people had their bodies cleaned out.

Very few times would you actually see people that were alive, this man stayed, for example. On the buildings, there are these things called demar codes, which is pretty bad. It's what it sounds like, the FEMA Mortuary Response Team, to kick down doors. They'd search the house and find bodies.

Here is one of the photos where we had found a nursing home. Probably one of the nursing homes, that was later on the news for having euthanized people. Where there were eight dead bodies inside. When we rolled up, and we showed our press passes. Some of which were legitimate, and some of them were not legitimate. They told us that we had to leave.

They had guns un-holstered, just standing there, blocking our way, "This isn't for you to see." It was the same story all over New Orleans, nobody wanted to show the dead bodies. Nobody wanted to show the massive fuck-ups. Everybody wanted to see order.

As a result, that's what you saw after a couple of days, because the traditional media loses interest in anything. It's not interactive, people can't ask the kinds of questions that they need to ask. There was one building I found, which was a school, and the demar code, I hope is not correct, and to this day, I do not know, but, it said something over 50 on it, So a children's school, with all these dead bodies inside of it.

The soldier standing next to the school, I asked him, "Is this possible that there are 50 dead bodies in this building?" You're just standing next to this, I'm just wondering, "Is it possible that's the case?" They're like, "Oh, I don't know. It's not my jurisdiction. That's not for me to know."

The longer I stayed there, the more I realized that things were not changing. At some point, I had to do some interviews with some news agencies talking about this. They'd asked me, "Who is responsible for

saving Algiers?" And Algiers, again, is this place across the Mississippi River. The person who's responsible for stopping huge race riots, huge amounts of violence and bringing together a community so they could distribute supplies, without any government help, because the government wasn't helping them, was Malee Korten [sp]. It was his house in Algiers that was used as a home base.

It was his house that was the original media center, where independent journalists, from Europe, mostly, but also the Guerrilla News Network, myself, Joel Johnson from Gizmodo and other people India media. They were able to work out of his house. They were able to write about things, without fear of being censored by the people they were staying with, without having to be locked inside their house by Blackwater Security guards.

We decided that we were going to set up a radio station with information. At this time we had learned, from Houston, and we just set up a pirate radio station, the FCC, although they were issuing permits. We decided it was not worth complying with the American federal law, because it was just getting in the way. We set up a radio station, again, with information, so that people around the area who had radios could know. We also set up voice over IP links, so that people could call their loved ones, so that people could contact people that were displaced, people could have a phone number they could be reached at.

Because most of these people were so poor and so destitute, that they did not even have a computer in their home or on their block. Some of these people had never even touched a keyboard before. Often, they had trouble dialing telephones. The amount of gentrification that happened in New Orleans as a result of this, is astounding. Entire communities are completely wiped out, completely taken.

It's amazing, because this American disaster is a lot like the other American disaster I witnessed, Iraq. It's the same thing over and over again. The disconnection, the lack of feeling of humanity, the lack of these people being worth living for, helping, saving, none of that matters, apparently. There were a few people that did care. It seems like, even now, it's not part of the American archives. It's like Hurricane Katrina almost never happened. The Iraq War, "Isn't that over already? I haven't heard anything about it."

But, it isn't. The reason it isn't getting better and the reason things are not improving and the reason the war isn't ending is because we're letting it be that way. We are all complacent in the murder of hundreds of people in the accidental deaths, through starvation or whatever the case may be. However someone would die with their shoes off, in an area of New Orleans that didn't even flood.

When we all stand idly by, we contribute to this. We can't do that anymore. We have to stop that. The things that happened to my father, it took me a long time to realize it, but it's not an isolated incident. The things that happened in Iraq, they're not an isolated incident. The way that our Western society exists is on the back of other societies. We're actively exploiting those societies so that we can have a better standard of living. But we're closing our eyes to the real cost of this. The real cost of this is that we are killing people every day.

The day before yesterday in Baghdad, I was told by a friend of mine, that six car bombs went off. How far into the war are we now that six car bombs could go off? That's quite amazing to me, that that could happen still. It's still happening right now. The war is still going on. People are still suffering. People are still dying. In New Orleans, there are still people who don't have houses, who's houses have been demolished,

who's family members have not been found.

[39:45]

What you can do? It's up to you. It depends on your skill set. I think that it's important to realize that there's a world outside of the computer. Of course, almost everyone here knows that. I'm sure of it. You're conscious. You're awake. You're paying attention. But the question is, "What are you working towards in your life?"

Are you trying to find fulfillment through empty, meaningless material wealth? Are you trying to look your best so that you can find a mate? Are you trying to just be happy and content? Or, are you trying to eradicate the things that you, yourself, would not want to endure? Are you trying to make the world a better place through strong photography and awesome system administration? Are you volunteering your time? Are you working for non-profits? Are you working for commercial organizations that help those people? Are you working for privacy, amenity, freedom, transparency? I'm sure you are, because that's what we all need to be doing now.

This concept that we've lost the war is wrong. The people that are dead, the people that I saw bloating in the sun, the people whose family members in Iraq have been eradicated by the American government, the people who, to this day, live in fear that the standard operating procedure of the US Military is going to wipe them out.

Those are the people who lost the war. We are all alive. We are still breathing. We have not lost the war. You would be a coward to say that we have lost the war and to give up. Don't give up. Fight every battle. Stand against injustice. Stop this crap from happening in the future, because, it will happen here again, and every country in the world and everyone else in the world will ignore it, if we continue to be compla-

cent at it. When it happens in America, when it happens in Iraq, when it happens to the Armenians, when it happens to the Kurds, when it happens to anyone, we have to stop it. We can't let this happen again.

[applause]

If anyone has any questions, I'm sure there are lots of the technical details that I left out, like I didn't really tell you about the fact that there are great covert channels of communication when you have satellites that are monitored by the American government.

I didn't really talk about people using crypto. There aren't many people using crypto. Reporters who report things over the Internet, are often visited by people from the military telling them to change their stories when they report them to the editors. I didn't really talk about that or touch on any of it. There are lots of specific details that I can give you.

[43:00]

AUDIENCE MEMBER: Do you think personal publishing, the web blog things, helped you somehow in making other people pay attention?

JACOB: I definitely think so. I think that the hundreds of thousands of people that read and contributed, they definitely were able to make phone calls. They definitely were able to get people to care, to donate money, to donate hardware, to donate their houses for people to sleep in, and to bring food. There are so many people, that when I tell them about what I've seen in Iraq and what I've seen in New Orleans and Houston, those people, they give up their lives to go do something else.

I have a friend, her name is Katy, whose last name will go unnamed for now, who, after seeing and hearing this, when I originally talked about it at Webzine, in San Francisco, she joined the International Solidarity Movement and is in Palestine now. Working for

these people who are being oppressed by Israeli Apartheid. That's awesome. That's what we need. Just that fact, that this one person went and did that, is worth it for me.

When I went to Iraq, I knew that I would either come back whole, or I would come back full of holes. Either way, the parts of me that needed to die, the parts that didn't care, that didn't have compassion for other living human beings, and other living beings that weren't human, those things are gone now. That's what's important, is that we all lose this disconnection, that the person sitting next to you is not equal to you, is not worth caring about. Any more questions?

[44:35]

AUDIENCE MEMBER: I'd love to know more about the satellite technology you were mentioning.

JACOB: The satellite technology that I was using was a Hughes system, which is basically 1.5 megabit down and something like 512 up. It has about five seconds of latency sometimes, which is pretty awful. It's not encrypted over the air in a way that is secure. When I was communicating over the satellite, I used SSH tunnels. All the satellite protocols seem to do really funky stuff with TCP/IP. Almost everybody has DNS-caches and proxis for everything. Everything that you do that's encrypted, it's kind of weird. When you send a SYN, you get a SYN/ACK back immediately. But, that's not possible, because the packet has to travel into space, back down, once into the Thresher uplink, it goes on the Internet. Just the mere fact that this kind of mucking around happens, it means things behave unreliably. DNS is captured by pretty much everybody. It makes phone conversations kind of difficult, it's like using a half-duplex radio with someone that's never picked up a telephone or something.

That was a stationary v-set. You can get mobile v-sets, that do tracking at 110 kilometers an hour, on a

vehicle. Which would probably be really useful to you if you needed to do stuff like the Falun Gong did when they hacked Chinese television, more props to those guys and Captain Midnight. Those technologies are a little bit more expensive. The people that were using satellite phones that I knew there, were using Thuraya satellite phones, and it's pretty expensive. It can be, I believe, over a euro a minute. They're going to work only outside, unless you set up lots of antennas inside. Yes?

[46:50]

AUDIENCE MEMBER: You mentioned a question that you asked your partners in Iraq and in Kurdistan. What are the main questions they asked you? Are there any ones that stand out in your memory right now?

JACOB: Yes, there's one that really stands out in my memory actually. "Why is this happening to me?" was one of the questions that I was asked, all the time. "Why is this happening to me? Why are the people of your country letting this happen?"

I couldn't give them a good answer, because I pay taxes to the United States government, and those taxes go and make bombs that fall on their buildings. I couldn't come up with a good answer, but lots of people have been working toward good answers, saying that we don't want that to happen anymore.

The other question they wanted to know, "Do people realize that we're just like them? We just want to have a family and live safely. We just want to be loved. We just want the same freedom that you supposedly have in America." Pretty much, everyone just felt like, they were shocked that people didn't realize how bad it was every day.

"Do you realize how bad it is every day? Every day I leave my house, I kiss my wife goodbye, because that may be the very last time that I ever see her alive,

every day," pretty intense. I said, "I didn't know that. I don't think very many Americans know that."

When I was on a flight from New Orleans, leaving on my way to Atlanta, I sat next to a woman who was, it was pretty appalling what she had to say. She said, "I just don't understand and then she shoved some food in her mouth. How it was that these people and then she shoved some more food in her mouth, did not leave New Orleans?"

I mean, I heard that we needed to leave. After I heard it on the television, I got in my car and I drove to my summer house in Georgia. I don't understand why these people didn't leave. I mean, what's wrong with them? They had ample warning. I heard that the mayor said they were going to send buses for everybody."

I told her that most of the time, the buses didn't come, and most of the people didn't watch TV, because they couldn't afford one, and, pretty much, nobody there had so much as a summer home, let alone actually owning their own home. She couldn't understand this. It's that kind of disconnect with our own neighbors that allows us to have that kind of disconnect with the world and everyone in it. We have to strive to get rid of that disconnect. Any more questions before I go?

AUDIENCE MEMBER: Have you met many people in the time you're traveling around which are at the same point as you are? I mean the point you say, "I spend the maximum of my life and my energy to doing such things to help other people."

JACOB: I have, I've met lots of career activists that do this. These career activists now are living under watch lists with tapped telephones, the repercussions of caring about the planet, the environment, about social justice, equality of rights, economic equality, just freedom. These people are all in bad places as a

result, places like Greenpeace, for example.

While I no longer work there, they could be considered a terrorist organization by certain wings of the American government. The price, certainly, is high for doing this. But, there are other people out there that are doing it. I'm not suggesting that you give up your life and stop buying things and just go live an anti-materialistic, Buddhist monetary life style or something like.

I'm suggesting that we be conscious in our life of the things that we support, not just with our dollars, but with our feet and with our mouths and with our work. All right, if there's nothing else, "Thank you."

[applause]

Keynote: Not My Department

DATE: December 27th, 2012

EVENT: 29th Chaos Communication Congress (29C3)

VENUE: Congress Center Hamburg, Germany

LINK:

<http://events.ccc.de/congress/2012/Fahrplan/events/5385.en.html>

VIDEO (YOUTUBE): https://www.youtube.com/watch?v=7mnuofn_DXw

VIDEO (YOUTUBE): https://www.youtube.com/watch?v=QNsePZj_Yks

VIDEO (YOUTUBE): <https://www.youtube.com/watch?v=Wl5OQzoKo8c>

Good morning Ladies and Gentlemen.

I'm very happy to be here, but German is not my native language, therefore I will continue talking in English.

It's an honor to be here. The Chaos Computer Club to me is like family. And it is such an honor to be able to speak to everyone here, and it is ridiculous that they asked me to give the keynote.

I hope that I am not wasting 3000 collective hours of the smartest people on the planet with what I have to say in the next 60 minutes.

[applause]

I want to start by thanking everyone that is in the audience for being here.

And for some specific people, I wanna call out Laura Poitras who is this woman here next to the woman with the camera, because she produced and edited the videos we are going to see. I've been working with her quite a lot and she's a very inspirational wonderful artist who I love deeply. And I'd like to start by playing a video, which is part of an art project we are working on, that many people are working on, and if we could play that first video I think it would be a good way to start this off.

Fantastic. So, now we have an idea about what my

talk will be about, right?

Just in case there is any question that I was going to change horses midstream.

...

This is a location, it's called Bluffdale, Utah.

And this is one of the largest data centers, that we know of, that the NSA is currently constructing.

And there is a question, of course, about what is is that they are trying to build, why they are building it, what exactly they plan to do with this space and how they will use this space.

And I'm going to talk a bit about this.

Nice.

And, what I'm hoping to point out is, that this is everyone's department.

So, in this case, what we see is the construction of the actual Bluffdale, Utah site.

So this is the slow process.

But there's not really anything in particular one might object to, in this process, it's just the construction of a very large building.

And I'm gonna read some addresses now, that were passed out when Bill Binney, Laura and I did a show at the Whitney.

'2651 Olive Street, St. Louis Missouri, 63103 United States'

'420 South Grand, Los Angeles California, 90071 United States'

'611 Folsom Street, San Francisco California, 94107 United States'

'51 Peachtree Northeast Atlanta, Georgia 3030 United States'

'10 South Canal, Chicago Illinois, 60606 United States'

'30 East Street, south west Washington DC, 20024 United States'

'811 Tenth Avenue, New York New York, 10019

United States'

'12976 Hollenberg Dr, Bridgeton, MO '

These addresses are potentially domestic interception points for the NSA in the United States.

One of them is confirmed, according to Marc Klein who blew the whistle and discussed the fact that the NSA was doing domestic surveillance.

I and many other people believe that the purpose of this data center is to build something to store and process massive interception. Where some of the calculations by Bill Binney, who was an analyst with the NSA for almost 40 years.

He thinks that this center will be used to store this information for probably somewhere around a hundred years.

And so in theory we might say that that's no big deal, we have nothing to worry about.

I very much want to make sure that we cover in this talk that's going to happen right now, that this right here is in the back of everyone's mind. A data center designed to store things for a hundred years seems like a reasonable theory for this.

And if you read the information that is present about it, you will in fact see that that seems like, it's probably an understatement.

And probably, since there are more than just a single facility like this, that there's the possibility that a hundred years is a short version.

And that's an extremely scary proposition.

So, part of the reason I wanted to show you that, I wanna lead with that, but I wanna tell you a quote, which is

'Nothing strengthens the judgement and quickens the conscience like individual responsibility'

which is a quote by a feminist known as Elizabeth Stanton.

This I think is a useful thing when talking about

things not being our department.

Because what do we have to do with the NSA? What do we have to do with this giant data center that's being built in Bluffdale?

Well in essence part of the thing that is so scary is that with the internet and with communications systems as they exist today, there really isn't a geographical border.

That really changes what we can and cannot care about in the ways that we used to. The fact of the matter is that the NSAs interception, those interception points they will carry not just the Americans' data, they will carry everyone's data for the internet.

So caring about this data center is in fact a very serious thing that we need to consider.

Because in fact it does impact everyone.

But even if we didn't use the internet, it impacts the people that we care about in a transitive way.

So I'm hoping that in the course of the next 50 minutes I will be able to convince you that these things are your department.

And I sort of want to start to talk about what Rop and Frank had talked about for the last few years.

Have any of you seen these talks that they have given, such as the "We lost the war" talk and "How the society might collapse?" Can I see a show of hands for that? Ok, so about half of you.

I wanna say that they talked about this and they said that, you know, we have lost the war, the surveillance state war.

Basically so many people have decided to go to 'the dark side', as it's been called, that is working on deep packet inspection, censorship equipment, surveillance equipment, targeting information etc.

This is, in fact, what has happened.

If you look at the jobs that pay very well, that people are aware of, they usually are systems of con-

trol types of jobs.

There are research positions obviously that exist in the world, but it pays better to work for a Lockheed Martin than it does to work for a university.

So people will choose, I think for sometimes good reasons, or for understandable reasons, to do these types of tasks.

And sometimes people will even make moral arguments saying things like 'because of Stuxnet we were able to avoid violence or bombing of a factory' of course the reality is that these things are not used alone, they are used together and in concert with bombings of factories.

So, it's certainly worth mentioning that these guys, Frank and Rop, as well as many other people who did not stand up and tell the congress about their ideas, that these people were really on to something.

And unfortunately now we actually live in the world that they were describing that was coming. And it's an incredibly scary world and in the last few years, I've had the misfortune of being targeted by a large section of this world. And I can tell you that it's been quite an uncomfortable series of days.

Just one day after the other is the way to take it, or the way to deal with it and this is not a comfortable or easy way to live.

And when Frank and Rop talked about his they still had some kind of hope in their voice and I think that that was important.

So what I wanted to do was to try to take that hope and to focus on it.

And to try to take it and say that despite the fact that there are these oppressive systems of control, and despite the fact that we do now live in a surveillance state, that it may still, and i think reasonably, be possible to resist

the surveillance state and to turn things around if

we wish.

And I think that there may come a time in which that is not true, I don't believe that that time has yet arrived.

So, Frank wanted me very much to stress this notion, that we can make a choice about what we do with our time.

That is this notion of the dark and the light side.

I personally don't think that the sort of black and white, white hat - black hat ethics make any sense, because I don't define my ethical or moral framework by making comparisons to black and white 1950s cowboys movies, and I'd like to say that there's some nuance there.

But there are some simple things that you can do to decide if you're working on something which is oppressive.

And one of them is just to ask yourself if you're working on a system that helps to control others, or if you're working on a system that helps to enable others to have control over their own lives.

And this is a really simple test. If you're working on deep packet inspection that will be deployed on people who do not get a say in it, you probably are working for the oppressor.

It's not guaranteed, because there are many layers of indirection. Blue Coat probably doesn't think of themselves as being a tool in a military dictatorship's toolbox.

But the reality is that when the Assad government or when the Burmese military dictatorship or their alleged free market companies in Burma use Blue Coat, which they both do, they have for some time and they will probably continue to, Blue Coat is in fact part of that system of control.

Now are they responsible? That's a good question. I don't have an answer to that, but I do have an an-

swer to whether or not I think that they play a role in it, and that is that they do.

What role? Well it remains to be seen.

And what I'm hopeful about is that some people, especially the people in this room, have actually made the choice that is the opposite of that, they've decided to work on systems that help enable people to be free.

When, for example, we see that Mitch Altman from Noisebridge has dedicated his life to teaching people about electronics, and to open hardware and free software, we see that he is enabling people in a positive way. And this is something that we as a community I think should really step up commending people who do this.

Bunnie Huang who builds open hardware, he is a hero, you can applaud that if you wish, the thing is that I probably can't do it but I wrote a name, a list of names of people that inspired me over breakfast one day, and it's pretty long so I'm not gonna read all of it, but the same is true for lady Ada, Christine Corbett and amazing people everywhere.

People who don't have names, who are basically anonymous in the community, but we should look to them, and we should look to them with pride and we should look to them with support and mutual aid and solidarity.

Because it's not just negative stuff. Not everybody in here works for FinFisher, right, and, in fact, probably more people in here work against FinFisher, thanks for that, to that end, we can make a choice about what we like to do. And it is possible to make a living making free software for freedom instead of closed source proprietary malware for cops.

...

But there's a cost to that and so I want to point out something in this next video.

I'm going to be silent while it plays unlike the last

one, and it's a minute long, so if you could play that

'Does the NSA routinely intercept American citizen's emails?'

'No.'

'Does the NSA intercept Americans' cell phone conversations?'

'No.'

'Google searches?'

'No.'

'Text messages?'

'No.'

'Amazon.com orders?'

'No.'

'Bank records?'

'No.'

'What judicial consent is required for NSA to intercept communications and information involving American citizens?'

'Within the United States that would be the FBI lead. If it was a foreign actor in the United States the FBI would still have to lead and could work that with NSA or other intelligence agencies as authorized. But to conduct that kind of collection in the United States you would have to go through a court order and the court would have to authorize it. We're not authorized to do it nor do we do it.'

I think you can all understand the subtext there, which is that I'm protected but you're not. I bet that makes you feel really great.

So that data center we were looking at, what he just testified in front of congress about, that was General Alexander, he's the most powerful person in the world, probably, even more powerful than the president of the United States or any leader of any other country.

He controls the intelligence infrastructure for the entire NSA and he has ties to the rest of the intelli-

gence community as well.

So what he's basically saying is that, if there was an American hypothetically in America, they'll probably be fine. Which really doesn't make me feel good because there are seven billion people on this planet, and just a few of them are Americans, why should they be treated specially in this regard?

So that giant data center that we see, it's for all of you. And it's also for me, because despite the fact that I'm an American, being associated with Wikileaks is like, well, it's not a good time in America.

So there's this thing to be said here, which is that, that guy is a fucking liar, first of all, because we know for a fact, we know for a fact from Mark Klein, that the NSA was in fact doing dragnet surveillance of all of those things.

So straight up, the guy is a liar. But then on top of being a liar, which is bad enough in this context, he doesn't even bother to pretend that you have any value at all. And that you have rights. And that your privacy is important. And that your human dignity matters, because of where you happen to be born. And what flag he imagines you flying. That to me is very depressing and I feel like it actually gives the rest of humanity that lives in America a very bad name, and so I'm very sorry for that.

But I want to talk about some other things that tie together with that, because if we just think about massive surveillance in isolation, we, I think, will have quite a problem, quite a series of problems, in fact.

So let's talk about some things that all have commonality with the surveillance state.

First of all, data retention and retroactive policing, which is clearly a human rights violation, in Europe it's clearly the case that this type of activity taking place creates suspects out of everyone.

And being a suspect is to already not be free, in my experience, and in fact, in the 1800s, There was a British author who wrote 'to be free from suspicion is one of the first freedoms that is important for being free in the rest of your life'

When you are followed around, when you are being investigated because of the whim of someone, this is the beginning of the end of your freedom.

So, it seems that data retention is the beginning of the end of many of our freedoms in bulk.

And that is a very scary thing. And when people do retroactive policing, it is when they apply that lack of freedom in a very specific way, and then they take these actions, they depend, of course, on which state you happen to be in and which fiber-optic cables happened to be in use when your bits were crossing it.

But how does this actually play out?

It depends, right? And it depends in a very specific sense, so for example drone killings, and I'm not just talking about Anwar al-Aulaqis' innocent

16-year-old son in Yemen, but drone killings of thousands of people.

The targeting information is fed to the CIA and to other groups from surveillance listening points, from intelligence factories.

So there is a direct relationship between surveillance and support of straight up murder.

That is something which sounds scary, but what makes it even scarier is that the way that these drone killings are carried out is that the central committee who gets to decide who lives and dies, or Obama's assassination Star chamber, that central committee, which sounds a lot to me like some of the Soviet rhetoric I remember from my childhood, that central committee decides non-democratically who gets to be assassinated.

And it's just a hop or two away from surveillance.

So when you assist the surveillance state, you literally are helping to kill fucking children.

That's something which is maybe not going to help me sleep at night.

And you can choose not to be a part of that. Almost every person in here, I think, has made that choice.

But if you're on the fence, I guess you can guess where I would suggest you go.

But there are some more ties. Because let's say the drone killing just seems a little too far off, right?

Well in Uganda there's been a proposal for some time now which seems to be almost pushed back, but not quite, where they wish to make it a death sentence for being a homosexual, where aggravated homosexuality is a crime, I think that's where you continue to flip your wrist, I'm not quite sure what aggravated homosexuality means.

But this basic notion that someone would be forced to report on you or they would also go to prison, this is something which surveillance will impact greatly, and it will make a huge difference.

of course, we can talk about wider things, such as the Chinese suppression of the Tibetan people, we can talk about police backdoors and other so-called lawful interception malware, we can talk about wars of aggression in Iraq and Afghanistan, the surveillance state touches everything.

And it is more than that, it is the fact that the surveillance state, it is part of a system of control that causes much suffering.

It may also bring some good things into this world, but with the secrecy the surveillance state becomes something that is totally unaccountable.

So, we can look at some other things that are quite concerning and we can see that there are ties that are not as obvious.

The military trials of political prisoners in Egypt, the genocide of the Syrian people right now, the British and Swedish justice regarding Julian Assange, the right-wing Nazi sympathizers here in Germany that gave murdering Nazis passports and help and are still not held to account, the oppression and crackdown on WikiLeaks related or so-called WL tainted people, companies that sell equipment to brutal dictatorships and authoritarian regimes for both surveillance or censorship, sometimes both.

The reality is that secret police and spying agencies actually change our ability to govern ourselves freely, and they do it in such a way that it is not obvious, and it is seemingly impossible to resist.

Because these things themselves are secret it becomes extremely difficult for us to even know where to begin resisting.

At its core, in the United States, where this has gone, is that we have secret laws, with secret interpretations and a total lack of accountability.

Fundamentally, what these things are, is that they are oppressive vanguardist approaches, that are vanguard approaches to authoritarianism, they are insultingly paternalistic and allegedly above the law. If you've ever had the opportunity to meet some of the people that are working in this intelligence agencies that are still there, some of them are quite good, they are fundamentally awesome people, but then when it comes to their job they are in a pretty terrible place.

That is, if they wish to keep their job, they're not really free to dissent. If we look at people, for example, like Bill Binney and Thomas Drake, what we see is that when you dissend you will be crushed.

Your family life would be ruined.

There are huge costs to telling the truth, and there are huge costs to asking for a more just system. Bill Binney really actually blew my mind in a particular

way. I thought surely a guy who worked at the NSA for 40 years we wouldn't have a lot in common, but it turns out that he said to me that he thought that the spying was actually an immoral thing, but that maybe during the Cold War it was a necessary evil.

That is, he thought that maybe they could prevent total atomic warfare and at the same time he recognized that it was not the right thing to do to spy on people, that should not be the end in itself.

I was really touched by that, because usually it is the case that someone would say 'Well, except for Americans. You can spy on everybody, but not Americans'.

And for him the turning point, as I understand it, was that he decided that it was wrong to spy on everybody, and when they decided to spy on Americans, it was clear that they could not be trusted to spy even on any person, any single person, and to do it in a way which would be producing justice.

That was very surprising to me and actually made me change my mind quite a lot about people who might work at the NSA.

But then it turns out that he has suffered a great deal as a result of having that opinion, so maybe it doesn't change my mind that much about the people that are still there.

But, fundamentally, human rights in theory should be something that we can work for collectively as the human race, as a group of people.

And yet it doesn't really seem that that is what is happening.

There's a lot of rhetoric about it, but if you kill hundreds of thousands of people it's very difficult to talk about the benefits of these technologies in a way that doesn't seem like grouping, just simple grouping.

So it happens that we develop these sort of psychological defenses too it. So half of the people that I

have met and discussed this with, when this is the first time they have considered the surveillance state, they talk about it in terms of their initial reaction where they have put in 5 minutes of thought.

And they say 'well, it doesn't concern me' or 'it won't impact me', 'in fact, the only people who are getting it are people who deserve it, you know, they are under legitimate investigation'.

I'm not actually sure what a legitimate investigation is, when you can't actually hold people to account and there are secret laws.

Ruled by law and the rule of law are not exactly the same thing. Rule by decree doesn't mean that this is just, simply because it's written down, especially if the interpretation is secret.

So, after people recognize maybe that it might impact them, there is a fantastic set of things that takes place, and one of them is that people would try to minimize their role in it, saying something along the lines of 'Well, it won't be possible to sort me out and find me in this massive data set.' or 'even if I do stand out nothing will happen to me'. And then eventually, if they happen to be as unlucky as I have been in the last few years they'll say something along the lines of 'Well, the system works and no injustice will occur, because the state is benign'.

There are not many people that I have met that have gotten to that stage, who actually continue to think that for very long. It might be worth considering that perhaps we don't have to get to the point, to recognize that there is great folly in that set of thoughts, in that plan for thinking about it.

It might be the case, that the surveillance state that exists in fact is negative even if you do not yet understand fully its negative effects. So you see this also as a social defense in groups, as a reaction. I think, probably the split between WikiLeaks and

Open Leaks is the greatest example of the fact that groups, even effective groups, will split and will have bad blood and they will in fact deliver utter failure. And it's very sad, tragic even, and this kind of stuff is something which, even when trying to resist it, we aren't quite aware of how these types of things happen. I mean history shows us certain ways that these kinds of splits might occur, but it isn't the case that we fully grok those historical lessons. So, it's quite sad, in fact, that we focus so much of our energy on degrading things, like someone does the great thing and someone says 'ah yes, but this one thing', and the discussion becomes about that one thing. I think, in fact, it might make sense to focus on the good things, as well.

[24:41]

It is true that sometimes people produce free hardware, but it has one binary blob, that does not mean that we should not thank this person and give them credit, in fact, to really praise them for putting in so much effort to make everything as open as possible, and it's too bad one thing isn't open, but maybe we can put in that extra effort to open up and free that one thing.

It's basically the same statement, but the way that is stated allows us to think of it as being in it together.

And it helps to keep people together, and it helps to keep people motivated to work together, in fact. I think it's a useful idea, to try to take this tact.

We also have these psychological defenses about the physical world, which I personally have experienced quite a lot.

For example this notion that warrants are required to enter your house, that your physical location is somehow protected is a very quaint notion, I certainly don't believe that anymore, it's a little sad but it doesn't seem to be the case.

In the United States there's a thing called the Patriot Act. And section 215 of the Patriot Act essentially says something and it's interpreted completely differently, that is, there's a secret interpretation of section 215 of the Patriot Act.

And if you asked Bill Binney about this, what he would say is that everything is fair game. That is to say that, regardless of what you thought the Constitution said or regardless of what you think the United Nations declaration of human rights says, that's not what's really going on.

And so this defense that people have, that they're journalists, so they're protected and no one will do anything to them, it's nonsense. In the United States, every journalist that is subject to the wireless tapping tentacles is surveilled, regardless of the general journalistic protection. Every member of Congress, everybody in this room, probably, especially everyone in this room.

And of course people will say something like "Well, don't cross the border with anything".

That's just so stupid. So you know for example when I crossed the border with a telephone, I'm not actually allowed to tell you what happened to my telephone. And obviously it was a mistake to cross the border with a telephone, But it was not that much of a mistake since the telephone connects to the telephon system, and every number in that phone had been used to make a received call, so it's not like on this day, it was not already in the hands of the oppressor's hand It was the case in fact that it was slightly better indexed, but it also had extra numbers just for fun I mean if you're going to have a surveillance state that is going to get people for guilt of association, you might wanna make sure that you have some jerks in your phone book, right?

[applause]

But the reality it that while I can't cross the border with anything of consequence, that is me deciding to become subdued, and that is me deciding to accept the oppression

And every one here could make that choice, but I say "fuck that", that's not a choice we should make. It is in fact a coping mechanism, and these kinds of coping mechanisms are a response to feeling the lack of agency, feeling a total helplessness, for example people who run through their mind things like "how will I eat?", "how will I feed my children?", "how will I educate them?" "If I don't play along, if I don't comply, they'll make my life hell."

Part of the problem here, and it's funny to say that in Europe because it's such a different context. Part of the problem here is the state. When the state has the power to make you have those kinds of thoughts appear in your head, when it allows you to create that and to make those choices, we become less free.

So maybe recognizing those coping mechanisms, and then trying to progress to the next one, trying to progress to the next thought, could be helpful.

It think it is helpful. And for me what I have tried to do, tried to recognize, is that I tried to cope with a situation that was impossible to cope with at the time.

I mean there is nothing quite going to ruin your night, than feeling like there is an entire state stepping on your throat. It's not even great to talk about it in parties, I mean there is really not a lot that's good about it.

But there is some good that can come of it, and that is to show the people that it is not total.

That it does not merely end in tears, I mean it might, but it doesn't every single day.

You get to choose how it goes. I had the opportunity recently to meet the Dalai Lama in India, about two weeks ago, and to meet the Tibetan people who

had escaped from tibet under the oppressive Chinese rule People who had been shocked, their skulls cracked open, their stomachs ripped out, their teeth knocked out, their family jailed, you name it, they've experienced it.

And I realized I have no problems, by comparison especially, but I recognized something, which is these are the friendliest, nicest people you can imagine, I mean it's really quite a touching thing.

I mean despite the fact that a hundred years ago they were brutal theocracists, they certainly have learned since then. And it is the case that we can decide how we cope with these things. We can become increasingly cold, anatemized, we can become destroyed, we can undermine our communities, we can work against our interests in the long run, or we can choose to try to find joy in the life that we have, and we can try to have a better world, than the one that we have just come from, that we have experienced.

When I look at Bill Binney, and Thomas Drake, and Jesselyn Radack, and John Kiriakou, who are some amazing whistleblowers in the United States, and three of them are in fact in the audience here, and have a talk later today that you should attend.

It is the best thing at the Congress -I'am including this talk- (laugh) These guys and Jesselyn are amazing, and I recommend that you hear their story, because they will be able to tell you what it is like to stand up for the right things, and to even try to do it in the most straightforward way as possible, exactly by the book. Binney basically took a decade working through the system itself, only to find out that the system itself isn't working to take care of the problems as it should take care of.

So this is a guy, who, in my opinion, went through every possible hoop that I wouldn't even have bothered to jump through. But he proved to me that I

wouldn't have bothered for good reasons.

I mean it doesn't work out well, and there is something to be said about this.

But their story, I can't do justice talking about it, just the same way that I can't do justice to the story of Bradley Manning I can't do justice to the story of Julian, and what he is facing right now.

But what I can say about these things is that if you compare and contrast with Robert Bails, the allegedly Kandahar massacre-er I guess you could say, is when you're in the service of the state, even if it is killing (allegedly), twenty Afghanis, they will whisk you away, give you time for your family to move, and instead in the case of Bill Binney having a gun pointed to its head when he is taking a shower, they just make sure to take him to the general population of Leavenworth. Compare that to, let's say Manning, who spent months being tortured in Quantico, before being moved to the general population of Leavenworth.

There is something to be said about these kinds of examples that have come before, and I think, what can be said, is that some people have a very hard path, and when they choose that harder path. It is worth it choosing that harder path, Bill, Thomas, and Jesselyn have worked very hard on trying to show the world, that it is in fact, it's not completely worth giving up on, but it's not an easy task to go through, and when talking about Thomas, what his impact has been on his family, it is clear to me that the State intended for that hardship, it is one of their tactic.

But the return is that it used to be that people used to think that me, or some people talking about the surveillance state talking about the Utah data centre, that we are completely fucking crazy.

But now that's not the point. No one thinks that anymore. Now we understand that NSA's wireless tapping program is real. We understand that the data

centre is there to spy on all of us. We are no longer reeling from that fact. We are no longer denying that. That is the reality. It is because of the things that they have done, that this is the case. It is because of the bravery that they have in their heart, and the suffering that they have endured.

And the point is not to make a pity party for them, and the point is not to say that anonymity is not important, it is simply to say that anonymity in itself is not enough. It takes more than that.

Anonymity will buy you time, but it will not buy everyone else justice.

It certainly won't even buy them justice, and it wouldn't help them anyway, because in the long run it is easy for the surveillance state to try to deanonymise people, in fact I think it will be quite easy to deanonymise almost anyone in the total surveillance state, because our behavioural patterns will give us up, because our writing will give us up.

So, in theory the things that I have said are things that aren't probably new to anyone here, and you often hear that as a tactic of dismissal, "well, it's nothing new, it's nothing special there."

Well, I hear that. And I'd like to raise you a "please stop adulty talking", because it is true that some of these things are not new, but the reality is that we need to actually do something about it regardless of how long we have known that things are wrong. So there are things that we can in fact do. And it is worth mentioning, that this is not just happening to people who are whistleblowers, or associated with the people who are the most dangerous people on the internet, or anonymity, or some things like that. This happens to regular people.

And I'll tell you briefly about two minutes for about two minutes of an example, well, it is a very personal example, and I've been debating about

whether or not I was going to mention, and I think I'll mention it, just because I think that it is important. In the United States, probably not surprising most of the people here, I have a mother. And my mother, I know. But my mother and I are not particularly close, and unfortunately for her, my mother is quite mentally ill, and her life is quite tragic, more tragic than any person that I have mentioned so far.

But what is most tragic about her, is that in the last two years, about the time when my harassment from the United States started, but probably not related, she was arrested and jailed.

And the state broke basically every law that you can imagine in arresting her, including breaking into her house without a warrant, for arrest or search. Despite the fact that she was arrested under totally bogus circumstances, and despite the fact that her life has been utterly destroyed, where her house and her property have been taken from her and she has literally nothing left. She was forcibly committed to a mental institution.

And as a result of that, they decided that they can hold her for three years without a trial. Now being mentally ill is not in itself a crime. But because she was arrested for something then that is allegedly a crime, this means they can keep her until she is competent, thus effectively criminalizing insanity, which is too bad, she is legitimately mentally ill, and she could use help, but the way they decided to help her was by destroying her life, such that when she gets off from of the charges she's facing, she will have nothing to return too. So these are the effects of a totalitarian society, that goes after Bill Binney, Thomas Drake, Jesselyn Radack, Bradley Manning, Julian Assange, and myself.

And she told me, though she's quite insane so it's difficult to know if it's true, that she was interrogated

twice about me and Wikileaks. Once before she was being treated, and once after she had been forcibly injected with anti-psychotic medicines.

Now, that's a pretty upsetting thing to say the least. But the most upsetting part is that I don't know if it's her crazy ramblings because she is quite crazy, or if it's true.

But the important part is, that if we just take it as it seems, which is that it is a person who is falling on hard times. What we can take from this is that it is everybody's problem. I mean it's also actually technically my problem, but the important part here is to recognize that she is what is happening to everyday regular people in American society.

And that's a really upsetting reality to have that happened. So, what can we do about these things? Right? I mean, if you're still not convinced that that's what happening to regular people, then you will just skip by, fine. I don't know what I could say really to convince you, but I suppose I could say to look at the children who have been killed by drones, and are so innocent, and see what kind of justice that they have.

But it seems to me rather that we have to fight against things, but we have to do more than just fight against them, because merely fighting against things becomes corrosive. the same for Bradley Manning, In my mother's situation, fighting against her unjust imprisonment, the same for Assange, the same for all the people who have been unjustly harassed, or worse.

That burns you out, and it destroys your life, and it destroys your ability to feel hope, to have fun, and to be able to relax. I can't even remember when was the last time that I did not go to sleep wondering if I would wake up with a gun in my mouth, when living in the United States. Because that's the kind of world that we live in now.

And maybe you are lucky because you don't live in that world, but the reality is that lots of people do live in that world. And whether or not they deserve it, there is something to be said about the people who are not arrested, who have to worry of that kind of stuff.

Maybe that's a world where you don't want to live in.

So what if instead, we try just not to fight against things, but to build alternatives, and specifically to try to build sustainable alternatives, and to come to terms with the fact that we are losing our democracy around the world, and that we are losing our agency.

We are increasingly depressed about the kind of democratic oversight that we have, and feeling like we don't have representation in our respective parliaments and congresses.

That I think is a really good step to take, because it means that we can start to take other steps. Because once we admit that we have this problem, we can try to do something about this problem.

At the tor project, one of the things that we've been trying to do, is to build the thing called the Ooniprobe, and Arturo Filasto and Isis Lovecruft, who are two of the most awesome Python hackers on the planet, they have been working on a probe, to try to detect Internet censorship, so that we can do something about this.

They are building a positive alternative where we will have data to be able to talk about human rights violations in the context of scientific observations, which will allow us to be able to actually have conversation about whether or not this does the right thing for our societies, whether or not there's a trade issue.

This kind of constructive approach is awesome. And we should applaud it. I don't know if you want to stand up Arturo, but you should!

[applause]

I recently used this code. I wrote the very first version of Ooniprobe, and Arturo was set to discuss it, and he rewrote it from scratch. I admit, I think it was probably the right choice. But I used it in Burma, and using this is we accidentally discovered a new way to detect censorship surveillance, that we had not previously considered, which was, even if you don't know a censored site, if you use twisted, it's so efficient that it will crash the blue coat device for a nonsense on site. Thank you Blue Code.

These kinds of positive constructive approaches are worth talking about, and there are lots of them. Everybody who's worked on GNU project, everybody who's worked on opensource software and free software, everyone in this room who's working on hardware, who's working on documentation, these are things that we should try to focus on.

And we should do it towards some goals. We should try to consider that when we build free and opensource software, when we build free and opensource hardware, we are enabling people to be free in ways that they previously were not.

[40:56]

Literally, people that write free software are granting liberties.

About ten days ago, I had the —I guess pleasure is the word— to go to Burma, and I met some free software hackers who live in situations, which are almost unthinkable. One person I met had been sentenced to 15 years in jail for receiving an email with a political cartoon in it. And it was considered receiving illegal information, or something along these lines, and he served four years in a hard-laboured prison camp, before being released earlier this year. So the conditions for hacking, the conditions in which communications are not free, where sim cards cost \$250, where there is

a massive class stratification in what regards the access to the Internet and censorship, these people are working on building free software there, literally free software for freedom.

So when you work on free software for freedom, you are also enabling them to also work on freedom. This is the kind of mutual aid and solidarity, of which you don't even need to know that you are doing it in specific. But you are. So everyone who is working on free and open source hardware and software, is actively concretely building a better world. And yet there are exceptions.

There are sometimes people who make new licenses because they don't feel that they don't get enough credit. I think it was Theo de Raadt who said that. I mean, it happens. But ultimately, overall, it is a positive thing, and writing free software is great. And ultimately, part of the goal here, something we can agree on I think, is to try and leave enjoyable lives, free from cause of force. This is something that is, regardless of how we live our lives, that is probably something we wish to work on towards everybody being able to have, as their life, to be free, and in a very specific sense, where they get to choose what it is their freedom represents, where they get to choose how their life goes. Working towards that, you might be able to call it, as Peter Singer would say, a preference-based utilitarianism. The reality of that is, that I may not be willing to believe in your God, but I may respect the fact that you want to believe that your God exists. We have to come to the terms, that we live in a pluralistic world, whether or not some people might like it, right? The German nazis that the secret police were helping?

Those guys did not want to believe it. But those guys are dying out. Even though there are lots of them, there are seven billion people on the planet,

and no single person is going to be able to usher in their dreams of getting rid of the rest of the people who don't believe in them. And that's great, by the way. You see that, of someone from a Jewish descent standing here in Hamburg right now, which is fantastic.

[applause]

So even though Rop, who is in the audience here, is feeling pretty burnt out, is feeling that things are hard, because they are hard, it doesn't mean that it's a lost cause. He wants to go, and build a farm, and I'm not sure where he is in the audience, but he wants to go and build a farm, and to have a good time, and I think that's great.

I think that it is enough of a resistance that is worth exploring.

But I also think for people who are not yet burnt out, that there is a changing of the guard that is taking place. And so it is a new generation's time, to do what Rop has done for the last thirty years, is that about right? Gosh!

We should thank him for that I might add. [applause]

So I think we should stop trying to fool ourselves when we say that we don't care about things, or that we want to help but we don't help the things that are obvious and directly in front of our face. We should try to work together, to try to build independent structures, to replace the parts of the state that have been dismantled.

[44:44]

This is something which I think is highfalutin and difficult for people to grok, but part of the reason that we lose so much in our society, is because we don't have democratic control over the things that matter to us. So what we need to do is to try to replace those structures, those structures especially that are miss-

ing. And I'm including things that are not sexy, like child care and education, as well as, you know, open and free base band for cell phones, it's all related, so I think we have to move from a world where we act, not just react.

And there is a story about Emma Goldman, who is one of the greatest feminist and anarchist to ever walk on this earth, in terms of the work that she has done. And she talked about how she wanted to see the world be a better place, to bring about this anarchist utopia, and an old man confronted her and said: "Well I would like one extra hour of leisure time, and I recognize that compromising makes it difficult, but you know, I'm old, and I will die, and I will never know your anarchist utopia, so an extra hour of leisure time a week is very useful to me, and it's all that I will ever see."

And I think that this story is a good reminder, and that story I tell it briefly and badly, in order to say that the means, in fact are the ends, in most the activities that we take.

So the people who'd better break into computers and spy on people for the State, those people put people in prison, often as unjustly, and even in some case justly—even though I'm not a fan of it, I understand there is some good that can come out of it—the reality is that means that the control structure has become one that breaks into things and spies on people.

That is the end for the people who meet that as their untimely end. And I recognize that these kinds of means ends discussion is quite controversial. But the reality is that if we don't act with compassion for the people who are suffering on a daily basis, everyday. When we look the other way because of petty fights, as an example, the way that many people, because they do not like certain aspects of Julian Assange, or Bradley Manning, that they look the other

way for the injustice that they face.

Even despite the fact that there is a difference of opinion about many things, people do not deserve to be tortured, and people do not deserve to be unjustly imprisoned. To me, I think that...

[applause]

You can clap if you want.

Well, I feel bad for mentioning his name now. Moxie Marlinspike who is a great guy, well, I love the guy, he's fantastic. Well, he says part of the problem is, you know I'm paraphrasing, but he says part of the problem is we feel we don't have any agency, we can't do anything about all the bad shit that happens in this world. But the reality is we actually do. So if you believe, let's take a survey. Raise you hand if you think anonymity is something, and you think is a fundamental right we should all have.

Now raise your hand if you wanna do something about it.

Now keep your hand up if you're gonna run a Tor relay.

[laughs]

Everybody that put your hand down, why don't you run a Tor relay?

You can do something about it right now. There are costs.

But that is the point. We do have the agency. And sometimes we make the choice not to use it. And I respect that. We have that choice, and I'm glad that it's a choice. But we should recognize, that when we don't make that choice, or when we are afraid, that that is what is. Bravery is not an absence of fear. It is continuing to do things, even when you are afraid, because you know that it is the right thing to do. So it is important to be brave, and to acknowledge that there is fear.

And it is important to refuse to be anatemized in

our society.

And it is important I think to have solidarity with broad causes, rather than simply pointing out the differences, or things that we do not agree with.

Having mutual aide with humanity as a whole is something highfallutin, and out here in outer space in a sense, but that is the hacker community who wants to put people on the moon. So I believe that we can accomplish a little good will towards each other as well.

[applause]

[49:12]

So I mentionned that this was going to be about resistance, but it's beyond resistance, because part of resistance is really to make sure that people are doing something differently. But what if instead of making sure they do something differently, we make sure that there are alternatives available for people to freely choose? Well, that is part of what's happening here.

People aren't going to choose to starve. People are going to choose to do the things that keeps their family fed. So we have to replace the structures that allow for that starvation. And likewise we have to ensure as we build those strctures, we have to ensure that we build them in ways that are just and sustainable We have to make sure, that while whistle blowing and leaking are fundamentally a useful set of tactics towards a long term strategy of transparency, that there are lots of other things.

Gene Sharp's writings on the topic are extremely awesome, and I recommend that you read them. Because singing and dancing in the streets, even though it does not seem like it's helpful, it is documented to have brought down dictatorships.

There are lots of other things that we can do to continue, and to really carry forward the bit of democracy that we have left in this world.

And we have actually to help them further, and to help other people. And it's worth doing it. Well, I think hacktivism as a strategy is I think worthwhile. And it's worth mentioning that while breaking into something is sometimes quite difficult, it's fundamentally much easier than building something, something that everyone can use freely, something that is going to benefit people. But let's talk about these basic tactics for just a moment, because I'm almost out of time. But there are things that are scary. Like when I say that we should get rid of the secret police in the world, people expect lightning to strike, or some sniper rifles to like release a magic pink dust from the back of my neck.

But the thing is that the secrecy is what gives power. And so I think that the thing that we should try to do, is that if we have secret police that is interfering not democratically with our society, we should out them. That's important. To report them, and reveal the thing that is decidedly illegal. Reveal them and ask for accountability.

[applause]

If it is decidedly illegal, that for example they are helping right wing murderers, then show, that that's not what society actually wishes these people to do. Because otherwise there is a kind of culpability. This notion that is not your department is nonsense. It is all our department. You get to make a choice between living a life where you are going to have quite a lot of shame in the end, or one where the whole earth is our department.

That's a choice we have to make, and we make it all the time.

I'm honestly humbled by the fact that some people, like Karsten Loesing in the front row here, could have chosen to work a cushy job at the University, But he chose to work on some metrics for the

Tor project. He's a brilliant guy who can probably choose to do anything that he'd want, and he's chosen to do great work helping people to speak freely. And it's the same with Linus Nordberg, and George, and other people in this audience. So you can make that choice, and the return is the freedoms that we actually have in our lives. So I want to close, you know, by saying that if the governments murdering people, that you don't just brush it off.

You think about it, you look to who's accountable, and you collect data. Rop actually encouraged me to think about this. We may not be able to bring justice for people today. But when we have the data on the people who have done this tomorrow, tomorrow might be the day when we bring those people justice. Not brushing it off, not becoming desensitized, keeping that around, that will allow us to make people accountable later, even though right now that we can't. License plate scanners across your city?

Get that data. One useful thing useful that you can do with that data is that you can reveal all the covert surveillance that's taking place in that city. Think about it for a few minutes, and you'll figure it out.

It's not very hard. So then reveal that information, because spying is wrong, because spying is an affront to the human dignity.

Data retention? Same deal. Get that data. Use that data for something useful. Try to make sure that it is clear that those are not the decisions and trade offs we want, where a total surveillance state won't actually allow even special people to retain their specialness. It's quite dangerous when we have a fully surveillance state. But we have not fully understood that yet.

But we work toward that all the time. So if I were to leave you with just one thing, I would probably leave you with one thing that the Dalai Lama said in

his teachings.

I'm fundamentally not a religious person, at all, so I'm just going to leave out the last part of what he said, because it doesn't really drive what I'm trying to tell you. But I'll tell you what it is, and I'm not gonna say it at the same time.

He said that death is certain, but the time of death is uncertain, and I think that's something hard to cope with. But it's something I also heard from Bill Binnie which is very inspiring, and I've also heard it from Daniel Ellsberg. They both said that they are old men, and that they've got nothing to lose, but that they are going to do the best that they can, because "what are we gonna do? Jammy for the rest of their life?" they said.

That's awesome that they said that, because they're both older guys, and they may only have a little bit of life left.

But I think the important part is to recognize that they're coping with that certainty, that they will have to sleep at night, that they get to choose what they're going to do with the remaining precious bits of life that they have, and they've chosen directly and clearly that it is their department, to do the things that are in their control, to not sit idly by, to not be complicit of serious things, that are going seriously wrong. So what the Dalai Lama also said, was that at the time of death what only helps is the religious practice, and I think that might be true on a personal level, but on a societal level, another thing that helps is to recognize that we all are going at different paces, and so as people make these choices, they impact the world in what other people can do with their life. So Bill Binney's actions, he may not live to see all of these things come to fruition, but the important part is that because of what he has done, he has inspired others. And those are the people who will take action,

and make the world a better place.

So with that said, I'd like to say that some of the goals that I layed out in this, I'd like to say that they are everyone's department.

Happy hacking. Thanks for having me.

[Applause]

LIBE Committee Inquiry Electronic Mass Surveillance of EU Citizens

DATE: September 5th, 2013

EVENT: European Parliament Civil Liberties committee hearing on
USA Spying

VENUE: European Parliament, Brussels

ABSTRACT: LIBE Committee Inquiry on Electronic Mass Surveillance of
EU Citizens. Jacob Appelbaum answers questions and gives a further
insight into the NSA / GCHQ / Government spying technologies and
what they are capable of.

VIDEO (Youtube, 240p, 36:41):

<https://www.youtube.com/watch?v=SdLKje1IydQ>

VIDEO (Youtube, 240p, 3:25:46):

<https://www.youtube.com/watch?v=Cu6accTBjfs>

VIDEO (Youtube, 240p, 22:16):

<https://www.youtube.com/watch?v=JQyw-ozLfas>

HOST: Mr. Appelbaum, you've got the floor!

JACOB APPELBAUM: Thanks so much for having me. It's quite an honor to be here. This is my first time in European Parliament. I want to take a broad view of someone who has some experience with this. I've spent the last decade working in a censorship resistance field. I work on the Tor Network. That's an anonymity network that people can use so as to not be surveilled and to bypass censorship. It's actually funded by the US State Department, the Swedish International Development Agency and it's a free software project.

However, I'm here more in my capacity as an independent journalist, as an investigative journalist but also as a person who's been subject to extreme scrutiny, under these types of surveillance programs. With that said, I definitely want to talk about the NSA,

and I will, but I want to have a broader view. Part of what we've learned from Snowden and his whistleblowing in the public interest, is that the NSA has an all-encompassing spy program, essentially.

But what is not really well described in public yet is how it is actually the case that the FBI and the Central Intelligence Agency of the United States also have similar access programs. For example, when people talk about these PRISM-like programs, or PRISM itself, what that name actually means is it's a program where people in corporations, or perhaps non-profits of any kind, or simply organizations, are complicit in helping the government. Either because they are forced under the FISA Amendments Act, FAA702 I believe is the specific FISA Amendments Act that they are using in the United States. In this case Google for example, or Yahoo, or Skype, or Microsoft. They have either systems inside of their networks or attached to their networks, where they are willingly and knowingly assisting in secret interception. That would be the PRISM program.

Or there are significantly more serious business-like records, like legal instruments, which don't really even have a name other than business records. For example, the Federal Bureau of Investigation in the United States has a thing called the National Security Letter of which I believe I am actually a subject, which is kind of an interesting story for another time. These are generally considered to be unconstitutional in the United States. Judges have ruled that.

It appears that each branch and each agency has something that is like a national security letter. In the case of the business records, it seems in fact significantly worse than a national security letter. So it's not just a matter of meta-data, it is in fact any whatever business records. That's any records a business may create, or you may create with a business.

If we consider Prism, and then if we consider the fact they have hardware that's inside of these networks or are inside of these computer systems, it really is everything, unless there is specific push back inside of companies.

This we could call Prism. But it is actually more than just one program. Prism is just one program, and there are many programs like this.

There is another word which has been used quite a lot for companies that maybe don't fit exactly to that mold and it's been called *upstream*.

Upstream is more of a description, that it is rather how it is that they are doing it technologically. It sort of suggests that there is a little bit less complicity with the people that are targeted. What it suggests is if they can't monitor someone directly or can't reach inside of an organization, they then monitor any communication with that organization.

So that is they are *upstream* of that company, of those entities, of those systems.

The TEMPORA system, which is the full take collection system running in the United Kingdom by GCHQ. This is the system in the sense that they are the entire Internet leaving and entering the UK, and any packet any piece of data that flows through the UK goes into Tempora and is stored for, as of the last time I heard, for at least three full days.

That's every single thing not just meta-data, all data.

So that kind of system combined with something like Prism, is a surveillance apparatus that the world has never seen before.

When Duncan Campbell revealed ECHELON to the world, it was pretty terrifying. It was a very impactful thing for me. But when he revealed it to the world I didn't imagine it could become so much worse. Echelon by comparison is the kids' stuff that hackers create

these days.

These systems that we are seeing, Snowden having revealed through Glenn Greenwald and Laura Poitras, these systems are so advanced. The way these systems work and the way that these programs work it is really it is a three phase approach.

The first is through complicity either with legal instruments, the second is by normal surveillance and spying which is the upstream. The third, is what has recently been talked about as the GENIE program. This was recently revealed in the Washington Post. Genie is just one of many programs for tactical exploitation. They want to know what it is that you're doing. They can't monitor you upstream, they can't go to Google to get your information so they break into your computer system.

According to what the Washington Post has recently revealed, there are tens of thousands of systems which have been compromised by the NSA in an active way under just the GENIE program. There are other programs like that I am familiar with, which have not yet been revealed in public, which will be revealed in good time, where they are targeting specific pieces of software, where they are targeting specific types of people. And where they are specifically doing it for people that are not terrorists.

Some of the things that are clearly noted in some of these documents, it is the case that the terrorist is the exception. If they have 30 cases, one of them might be a terrorist. This is something that's very concerning because with a full-take collection, it is necessarily the case that you have every single person surveilled. One or two of them may be terrorists, accused, suspected, not even convicted, certainly not indicted. This is something which is also very important to keep in mind.

These people have not formally been charged in

anyway, and yet they are painted in this way. People that are targeted in this way and are under this surveillance...none of them are really terrorists in this case. There are special exceptions. It's important to recognize how these things tie together because it's very boring just to talk about technology.

Since almost no one understands the technology, it's a waste of time. Instead what we can talk about is the things that people really do understand. Which is that with the Five Eyes program, that is to say the defense signals director to Australia, CSE from Canada, the GCSB from New Zealand, the GCHQ from the United Kingdom, and the NSA from the United States.

They have formed a partnership such that, despite the American Revolution against the British. GCHQ can query the NSA's databases of America citizens where they have similar full-take collection systems. How that's legal is completely beyond me. How that for example is democratic, how it represents upholding my country, to me is quite a dumbfounding thing. I'm sure the British feel the same on the NSA careers. I would be quite upset about that as well.

Those are what are called first-tier partners. Those are the partners GCHQ and NSA are first-tier partners, and the others are second-tier partners. B and D, that's the Bundis, Noctis and Dein of Germany, they are a third-tier partner. It is not unlike Victorian piracy sites where you have a quota to fill. If you're a third-tier partner, you have to contribute some information to be able to query some information out. I'm not totally clear on how this works, but it is an interesting distinction between the different tiers.

This comes together to be used in egregious ways...for example, there exists signals' emission databases and fingerprint or signature databases. You have a particular signature for your voice, you have a particular set of selector or selector-like objects that is

your email address, your phone number, things like that.

Anytime you pick up a new device, and you enter these selector-like objects into this new device, that new device becomes linked to you if it passes by one of these sensors. There exists an emergent pattern-base-entity system for the entire planet and every person that is on the planet.

This data is fed into geographic tracking systems. The NSA and the CIA have a system whereby they track people and the slogan is, "We Track 'Em, You Whack 'Em". This was published in the Washington Post most recently. The surveillance data is tied directly into flying robots that kill people without process.

The surveillance has a huge impact on people in a very literal sense, like with rockets. In this case this is almost all passive. The first two parts of what I mentioned were passive. Tactical exploitation is not passive, but I want to dispel the myth of the passive NSA which is they are just some guys. Some really cute mathematicians with pocket protectors, and they're just doing math and breaking codes, and they're heroes in these world war movies.

There are people that are like that in the NSA, and there are some really incredible people that do work there, that are good people. Many of them actually have left to blow the whistle like Bill Binney, Thomas Drake, and Edward Snowden. In actuality, though, these people are doing the active operations. For example, I've become familiar with a program which has not yet been revealed in public where they instruct agents of the NSA to be able to go to an urban area to penetrate people's house networks like their home wireless network.

This type of a program is like the modern black bag job of a digital era. To go and break into your

house is the kind of stuff you would see in a cold war movie. They have training slides, in fact, for doing exactly that electronically when they can't get in another way. These kinds of systems and these kinds of programs are extremely terrifying. They are not democratic by their very nature. They're secret. They are without oversight. Whatever oversight might exist is mostly meaningless because those people who are doing the oversight have so much trust and so little education.

This is the key thing. Most of the people in the U.S. Congress that I have become familiar with in any way have other people print their email for them. They don't really understand how the electronic world works. None of them can tell you what TCIP is. Very few of them understand what wiretapping is in actuality. What we are actually seeing here is that the architecture itself of the systems is left vulnerable on purpose. There exists in cryptive fax machines...for example, we know that the European Parliament was intercepted.

I believe it was the European Parliament that was intercepted for, I think it was a crypto AG in cryptive fax machine. It looks like they did what we would call a tempest attack. They look for electronic emissions from the encrypted device. From that they were able to recover this actual pre-encrypted fax data. They didn't break the encryption. They went around the encryption.

What we see is that there are some architectural changes that change the type of attack. That is possible, which means it changes the economic scale, and it changes, in fact, the ability to carry out the attack in some cases.

In this case when we have so-called lawful interception programs, what we need to recognize is that the NSA is not bound by European laws, and they do

not care what your laws say. When you say it will be proportionate and balanced to be able to wiretap people for the purposes of terrorism, you are also tacitly endorsing the NSA to wiretap everyone in your country without any judicial process-without any proportionality, whatsoever.

This is what happened in Greece with the Athens Affair. Almost certainly, we don't know that it was the NSA, but it was an actor with sufficient capabilities. They were able to wire-tap the prime minister as well as members of Parliament. It also moves the risk from a world where it was military, to a world where you have someone who operates a computer. They are the last line of defense between your prime minister being wire-tapped and not.

In the case of the Vodafone incident in Greece, the person in charge of that telephone switch was found hanged to death in his apartment. The reason is because he wasn't trained to do these things or to defend an entire nation in that way. It changes the balance of power in a very serious fashion.

With that said, there exists a series of sensors around the entire planet. These sensors actually...you can think of the entire planet if you visualize a globe of the world. Now imagine there are electronic emissions from this globe. The NSA's job is to capture all of it, including what goes into space, and they do. Where there are interesting communication satellites, there exist communication satellites behind those satellites. What do you suppose that those satellites do? Interesting things to look into.

If we look at the Internet and we look at telephone systems, when the NSA is unable to actually get access to a system through some kind of complicity or through some kind of data sharing program. They re-purpose things that are already there. When we look at programs like Xkey Score, for example, we see

that they have coverage in places where we know that state-whichever state that might be-would absolutely not give this data willingly. How is it that they have that?

The answer is that they implant, or they put a root kit, into these systems. They extract this data. When they do searches, they are actually able to do real time searches with selector and selector-like objects to pull things out of that whole globe of electronic signals to feed it back to one of the massive data repositories. For example, the Bluffdale, Utah, facility is meant to store more than a hundred years of data.

If we think about these systems as a whole, we actually have a planetary surveillance system that is not accountable to the people, that is used for extra-judicial assassination in addition to other things. One of the only hopes we have is to use encryption to change the way and to change the economic value of such interception. We can't stop people from spying, but we can lower the value of that spying. I look forward to talking more about this. Thanks again so much for having me here. It's quite an honor.

[interruption]

[15:45]

HOST: Mr. Appelbaum, the floor is yours.

JACOB: Thanks, again, it's a tough act to follow. That report on Echelon that Duncan Campbell was involved in, is very influential for me in learning about cryptography and also in considering that there was hope for resisting surveillance or that actual legislators cared about the surveillance. Not every single person thought it was legitimate for it to be secret.

A couple of things I want to do, I guess there is a ridiculous amount of questions to answer and I will try to sum up my answers as quickly as succinctly as possible. One thing that I want to encourage is that

this topic is very dense. It requires what we had in the United States, the Church Committee. We require a Church Committee in the United States again, basically, because we need subpoena power. We need the ability to actually ask people who are in a position of power, who are not in a political position, to answer specific questions.

As an example, I would really encourage any of you that would like to help, to help myself or Duncan Campbell to get our dossiers from all of the relevant intelligence agencies in the world. If you'd like to see what the capabilities of these systems are, I assure you that between the two of us we have some files that are worth reading. He has to consent, but I consent. Feel free to put it on the Internet as well. That's it.

HOST: You mentioned the purpose.

JACOB: I think that the purpose is exactly as stated—that is to say that the job of an intelligence agency is to assist with control. Slowing things down, as Alan said is, I think, one of the fundamental ways that this can help politicians. In general, it can help many different groups to have a kind of control. Slowing down the publication so that you have more time to understand what's coming so that you can shred documents. So that you can change program names, so that you can find out if anybody inside that is planning to leak anything by giving them an extra polygraph and firing them or bringing them up on charges.

I think fundamentally the purpose of surveillance systems is control. That is exactly what we see these systems being used for, right? Surveillance is not an end toward totalitarianism, it is totalitarianism itself limited in scope at the moment, but when the Golden Dawn in Greece has access to the interception systems with their racist ideology? What will happen?

Well, it will be very different with and without the surveillance system. In the history of Europe, we've seen this with the IBM punch card systems. Right? Those punch card systems are the difference between millions of lives, technically, in France and Holland. So I think the purpose is clear, to control.

[18:22]

Now, what that control will be used for the United States is very different than what it will be used for by the German services, for example. Or by the British services. We know at least in the United States that this surveillance data is used towards illegal wars. We know that it's used towards assassination of our own citizens without a trial. In this sense, it's the ultimate kind of control, which includes the death penalty. That's also a kind of censorship, if you will, in extreme form.

Then to the German, Herr Voss, I think is his name. He wanted to know some of the usage. From what I can tell, there is definitely economic espionage, which seems to be a key reason. The U.S. actually argues that it stops economic espionage using this, which I think is fascinating.

I'm not sure that that is true and not exactly sure how to tell if that were true at all. I suppose the argument is essentially, "Your democratic process works really great for you, but it doesn't work great for us. But trust us we're helping you." It's definitely used for war. It's, in my experience, personal and professional and, with my colleagues, political persecution. It's very clear.

What to do to find balance? I think a key thing to understand here is we have a whole bunch of spies, which is to say generally criminals, who are saying that we need to use them as a vanguard for securing ourselves. The way that we do that is we leave ourselves intentionally insecure in hopes that they

will protect us.

But in Germany in particular, what we've seen the government say is that German citizens, German businesses, they're on their own to protect themselves. This is, I think, not the right balance. If the network itself is insecure -- if all networks by design are insecure -- we have some serious problems. That, I think, is not the right balance.

I think, in fact, when someone tells us that they are securing us, we should be secure. That's actually a fundamental prerequisite of that being an honest thing. To that end, Albrecht had mentioned this question about collaboration between agencies. I think there's a massive amount of collaboration between agencies, and I think it's apparent in what has been said in public and from the documents that have been seen as well as in conversations that people have had with Snowden as well as with other journalists that are involved in writing about these things.

In the twentieth century, we can say that intelligence services, generally speaking, were working for their state against the rest of the states, and there were obviously alignments. These days, it seems to be the case that all the intelligence agencies are collaborating together against us, which is terrifying to say the least, 70 percent. I was speaking with Laura Poitras a couple of days ago. She was suggesting to me that the number is something like 70 percent of the sig intake comes from collaboration with companies.

That means that we could secure 70 percent of our communications data if we incentivize. If we create protection in the way we actually communicate with businesses and with each other to reduce that collaboration.

It is not merely a question about whether or not the US government or a European government has access to this data, but what happens when the

Chinese government compromises one of those companies? In the case of Google, they were able to compromise, as I understand it, the FISA wiretap system inside of Google. So the Chinese were able to find out who the foreign intelligence targets were in Google.

It's not about whether or not we trust Google, it's about whether we acknowledge that we don't get to make that choice. Someone else makes that choice regardless of what the laws or policies say. Towards what we can actually do, I think we need to actually secure ourselves.

I have in my pocket here a cryptographic telephone which actually helpfully told me that there was some interception-like capabilities in this building. Just a side note. It might be a bug, but maybe it's a feature. This phone -- short of breaking into it when I make a phone call -- no one here, short of a mathematical breakthrough, is going to be able to intercept it. I have a couple different encrypted text messaging programs, I have the TOR projects, TOR Orbot program. I have Cryptophone, RedPhone, TextSecure, some other things.

Actually doing research into how to build decentralized distributed secure systems that are freely specified, openly specified, with no back doors, with no ability to coerce the developers into adding back doors, to actually embrace the idea of liberal democracy and drive it home that we have the right to speak freely. That is something that I think which we really can do. It's not like a pipe dream. We can do it someday. It exists right here, and you don't have it probably.

Why do I have it? Shouldn't you have this? I think the answer is yes, you should. Most of you don't, and most of you are without targeted. The point is not this specific device, because it's some prototype, but rather the point is that every single person in the

world should have that when they pick up their phone normally. Why is that not the case?

[23:40]

The answer is this fundamental tension between people that are supposed to keep us secure, and the way they keep us secure is by actually keeping us insecure, literally and technically. In the case of GSM, there was a different version of GSM constructed for export so that intelligence services could spy on some of those nations that would deploy it.

"The Washington Post" published a cost estimate. It's something along the lines of \$52.6 billion a year. Since 9/11, more than half a trillion dollars for the intelligence budgets, the black budget. I don't think that that encompasses, for example, all things that I might consider to be that. I don't think, for example, the CIA torture and rendition flights were in that budget. There are so many terrifying aspects to the way some of the questions were asked, just as a sort of meta-point.

For example, do five, one countries, that is to say, the UK, USA, New Zealand, Canada, and United Kingdom. Do they help each other out as a matter of circumventing national laws? The answer to that is very clear. It's yes. There's in fact even a place in Washington DC where some British and American intelligence services share a building, where they. I've been told, I haven't been able to see it, I have some satellite photos of it. Where it's a retransmission of information between the two parties, so that one party can intercept on one side and the other party can intercept on the other.

This would be something worth looking into. I hope Duncan will do that in his spare time. Then, has the NSA compromised European computers? I'll just say yes to that. That's totally, completely without question the case. Now, I wouldn't think of it so much

in terms of computers. I would ask yourself about atomic power plants, hospitals, parliamentarians, and I think the answer to those is also yes in specific. I would be pretty upset. That's very serious, because when these guy are messing around with control systems, for example, what happens when they accidentally do something to a control system and it fails?

Who's responsible for that? Does it count as an act of war? Do they have any economic responsibility for it? There's really serious consequences when we start to talk about that. There's a lot of fear-mongering about so-called "hacktivists" or hackers, and not a lot of talking about how if the Chinese are so terrible, for example, for having compromised a bunch of people and gotten caught, what are the NSA for having compromised basically everyone and gotten away with it?

If the Chinese are concerning, it seems to follow that the NSA's total compromise of these systems is actually more concerning. There's a lot of psychological cost as well. I've been targeted by the US government for the last four years for my involvement with WikiLeaks. I've been targeted by 2703 D orders. Those are administrative subpoenas, sealed search warrants. Probably if I knew, I wouldn't be allowed to tell you. Other legal processes that if they were to exist, I would not be able to tell you about their existence. An FBI agent once actually let me know that eventually I did become aware of a national security letter, thus accidentally leaking that there was one.

These kinds of legal instruments are terrifying, in particular because they use the language of terrorism about WikiLeaks, which is nonsense. WikiLeaks is not terrorism, it is effective journalism. In the case of indiscriminate document dumping, as the French journalist had mentioned, it's important to note that it was actually "The Guardian" itself that made that mistake, not WikiLeaks. WikiLeaks took great steps to

be able to redact names. In fact, they were criticized heavily by the free information world for taking the steps of redacting informants' names in particular.

The State Department actually stopped using that talking point after they accidentally leaked my name to some people, which is just kind of a side note we're talking about later. This kind of thing does not end with technology. It's not just that my computers or cell phones have been compromised, or that my accounts has been targeted legally, but my family members have been targeted. My partner woke up in the middle of the night with men in night vision goggles watching her sleep in her own home.

These kinds of things are a part of press freedom in United States now, and they use the language of terrorism, so when detaining me and seizing my property. They have literally called me a terrorist, denied me access to a lawyer, denied me access to a bathroom, and threatened literally my life in various different ways.

There's tons of legal action that's going on, but as a result of that, I live in Germany now, because it's better to be an immigrant in Berlin than it is to be a citizen in United States. Right? That should tell you about the situation. You can look at Glenn, who lives in Rio right now, and Laura Poitras, who is my neighbor in Berlin as well. You can see that people who are working on these types of issues as journalists. Their actions speak for themselves, regardless of whether or not they are brave in public, none of us are really in a hurry to go back to the United States and end up like Chelsea Manning, or to end up like, say, James Risen.

This is fundamentally a huge problem, because Obama does not actually stick to his statement about protecting journalists, and in fact instead wiretaps them. The Department of Justice wiretaps them. When Clapper lies under oath about NSA surveillance,

we see exactly this same problem. Total impunity for people, in some cases who are not even elected, and absolute ruthlessness for the people who are targeted by them as political enemies.

That's a very concerning aspect. The only thing that I see that really seems to give me a lot of hope is that in Europe, there's a huge debate about these things, and there's a really fantastically free press. Despite the fact that the First Amendment is very good, there are many American publications who literally run their articles by the CIA before they go to publish them as part of their "not being persecuted or prosecuted" strategy, as I believe Bill Keller did with the WikiLeaks cables and the "New York Times."

All due respect to the "New York Times," none to Bill Keller, this is something that I think is totally offensive. Working with "Der Spiegel," for example, you don't see that kind of collaboration. You see people who are in service of the truth, who do verify these documents, who are caring about what is actually happening. This is something which just-- I wouldn't do this from the United States again, at least not for a long time.

We should also address the myth that this is a post-9/11 issue. It is not. The NSA has been doing this kind of widespread collection, including on US citizens, for a long time. There's a program called Shamrock, which I would really encourage you to look into, and another program which was actually the FBI. It's called COINTELPRO, or the Counter-Intelligence Programs.

This is where they tried to blackmail Martin King, Jr. This is where they went after a number of people. The types of harassment that we see now, like, what my partner experienced with the night vision goggles, what I've experienced being detained at airports, or having black bag jobs where people break into my

house, but don't leave a note to even mention it.

That kind of stuff is like "Cointelpro," except it also happens electronically, and now unlike in the '70s, the US government asserts that it is completely legal. In some cases, they might be correct, thanks to things like "The Patriot Act."

There's far too much for me to answer every single other question, so I'll just be brief here and say when Obama says that, "We don't need to be afraid..." First, it's insulting to every single one of you in the room, because when he says to Americans, "Don't worry, we don't spy on Americans."

What about every other human being on this planet? That to me is something, which is extremely upsetting. I apologize on behalf of my incredibly insulting President for saying that about each and every one of you, because that is not acceptable in a civilized world.

He's also wrong, because my experience with WikiLeaks, is that Americans have more to be afraid of. The reason is, because there is a system, and a culture of repression that in some cases is so total, there are people that will not pick up the phone to talk, for fear of the metadata alone linking them to my telephone.

In the United States, I basically, don't have a telephone that people know about. I have one for emergency, and it's never powered on. Is it used for coercion? Is it used and is data passed for example to autocratic regimes? Is it used to study groups? Is it used to disrupt? Yes, yes, and yes.

Might they force or forge data? Absolutely. In fact, I've been detained at borders where they let me know how utterly in trouble I was going to be, but they could not arrest me, which is a very fascinating thing. I'm not allowed to see this file. I'm not allowed to correct this file. I'm not allowed to know it. They've acci-

dentially let me see the file while holding me in interrogation cell.

Their two-way mirror wasn't quite so good. In this case, I said, "Hey, that data's wrong." They said, "Well, no, you can't see it." I said, "But I already did." They said, "No, you didn't." Clearly, someone makes mistakes. Whether it's an intentional mistake is a good question.

How do we do this, to detect this kind of surveillance? It's easy. Do you use a phone? You have a tracking device. You make a call, it's probably intercepted. The metadata is almost certainly logged.

In some cases through outsourcing, the billing of your cell phone data is sent in some cases to Israeli billing companies where they are cut rate, because the product is actually your social graph. They don't care at all about what they're actually doing billing wise.

Having some legislation where that kind of outsourcing isn't possible would be a useful thing to do.

Finally, the "WikiLeaks Spy Files Version Three" was just released yesterday, and is continuing to be released now. This shows the sort of techniques that corporations have, and the multibillion-dollar market place for surveillance equipment. It shows the complicity with many of those executives, about 20 of them, were investigated by the WikiLeaks Counter Intelligence Unit.

The WikiLeaks Counter Intelligence Unit found that many of them were traveling from Europe to repressive regimes to sell to repressive regimes surveillance software, including targeting people that I personally know, who are journalists in Morocco. Targeting people in places like Ethiopia and Egypt.

This is something that I think Europe can do a lot with, by actually stopping these types of exports potentially, or at least insuring that there's a right of private action for anyone who is affected by it.

When Hacking Team, or FinFisher, or any of these people comes to such a country and then innocent people are armed, that they have a chance of having justice here, if it is not presented there.

Finally, privacy versus security is one of these points I keep hearing people touch upon. It's absolutely critical to do away with this talking point, because with all due respect, it's the wrong one. The reason is because privacy is a function of actually having security. It is not the case that we will have privacy by having no privacy. It does not make sense.

By having a total surveillance state, we can't say that our data is private when we have things like, "Loveint." If you're not familiar with this, this is the NSA term for surveilling your love interests. It's so frequent that they call it like, "Sigint, Signals intelligence," "Love Intelligence." Unfortunately, it's not funny if you've ever had somebody do something like that to you.

I would say that this is actually a question about dignity, agency, and liberty. These concepts rest on the concepts of confidentiality, integrity, and authenticity, but most of all consent. This is something, which is not actually present in any of these systems. We're offered security, but we're actually given intentionally weakened systems that are exploited and used against us.

This creates a horrible chilling effect, maybe not horrible for Europe, because many investigative journalists from America are moving here. In general, it's horrible for their families and their friends. There's a lot to be done about it.

Research and development in the European context to decentralize and secure these systems, and to recognize that it's not the exception that we need the security issue, it should be the rule that we need this. That will really move us forward in a very positive

way. We can start to change these things and to right these wrongs. Thank you very much.

HOST: We thank you, Jacob Appelbaum. We thank you...

