

Control & Surveillance

Workshop facilitated by
Julia Scher | Jennifer Schubert | Andrea Gaidano

The Maximum Security Society is composed of 6 inter-related sub-societies

The engineered society	Die technisierte oder technokratische Gesellschaft
A dossier society	Eine verwaltete und archivierte, ihre Mitglieder erfassende und bewertende Gesellschaft
An actuarial or predictive society	Eine Versicherungs- und Wirtschaftsstatistische und prognostizierende Gesellschaft
The transparent or porous society	Die transparente oder poröse Gesellschaft
A self-monitored society	Eine selbstüberwachte und –kontrollierte Gesellschaft
A suspicious society	Eine misstrauische Gesellschaft

Prof. Gary T. Marx (Soziologe, M.I.T.)

Security/Insecurity

1932 Aldous Huxley published Brave New World

1935–1944 On air period of the German TV Station Paul Nipkow. Its headquarters were in Berlin. It was named after Paul Nipkow, the inventor of the Nipkow disk

1936 Walter Benjamin published The Work of Art in the Age of Mechanical Reproduction

1939 John Cage composed Imaginary Landscape No. 1

1941 Konrad Zuse developed Z3, the first working machine featuring binary arithmetic, including floating point arithmetic and a measure of programmability. In 1998 the Z3 was proved to be Turing complete, therefore being the world's first operational computer.

1942 Siemens installed first CCTV for the monitoring Test Stand VII of A4–skyrockets (in Peenemünde)

1945 Vannevar Bush published in Journal The Atlantic Monthly the article As We May Think. He is thinking about a system called Memex (for Memory Extender) as an electronic extension of human memory and knowledge. A prototype both of PC and hypertext.

1946 Peter Goldmark (CBS) demonstrated his color television system. His system produced color pictures by having a red–blue–green wheel spin in front of a cathode ray tube.

1949 This mechanical means of producing a color picture (by Peter Goldmark) was used to broadcast medical procedures from Pennsylvania and Atlantic City hospitals. In Atlantic City, viewers could come to the convention center to see broadcasts of operations. Reports from the time noted that the realism of seeing surgery in color caused more than a few viewers to faint.

1951 The first video tape recorder (VTR) captured live images from television cameras by converting the information into electrical impulses and saving the information onto magnetic tape
1956 Ampex sold the first VTR for \$50,000

1957 Sputnik launch, 1st artificial satellite

1958–1980 Development and activity of SAGE, Semi–Automatic Ground Environment, Source: http://en.wikipedia.org/wiki/Image:SAGE_control_room.png
(This image is a work of a U.S. Air Force Airman or employee, taken or made during the course of the person's official duties. As a work of the U.S. federal government, the image is)

1950–80ies US SAGE
1961 first meteorological satellites launched by the USA

1963 Philips presented first audio cassette recorder

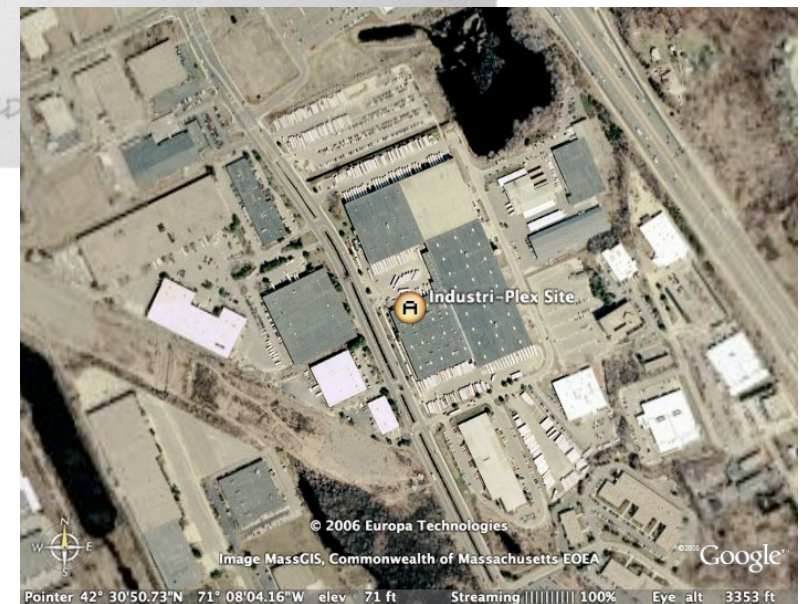
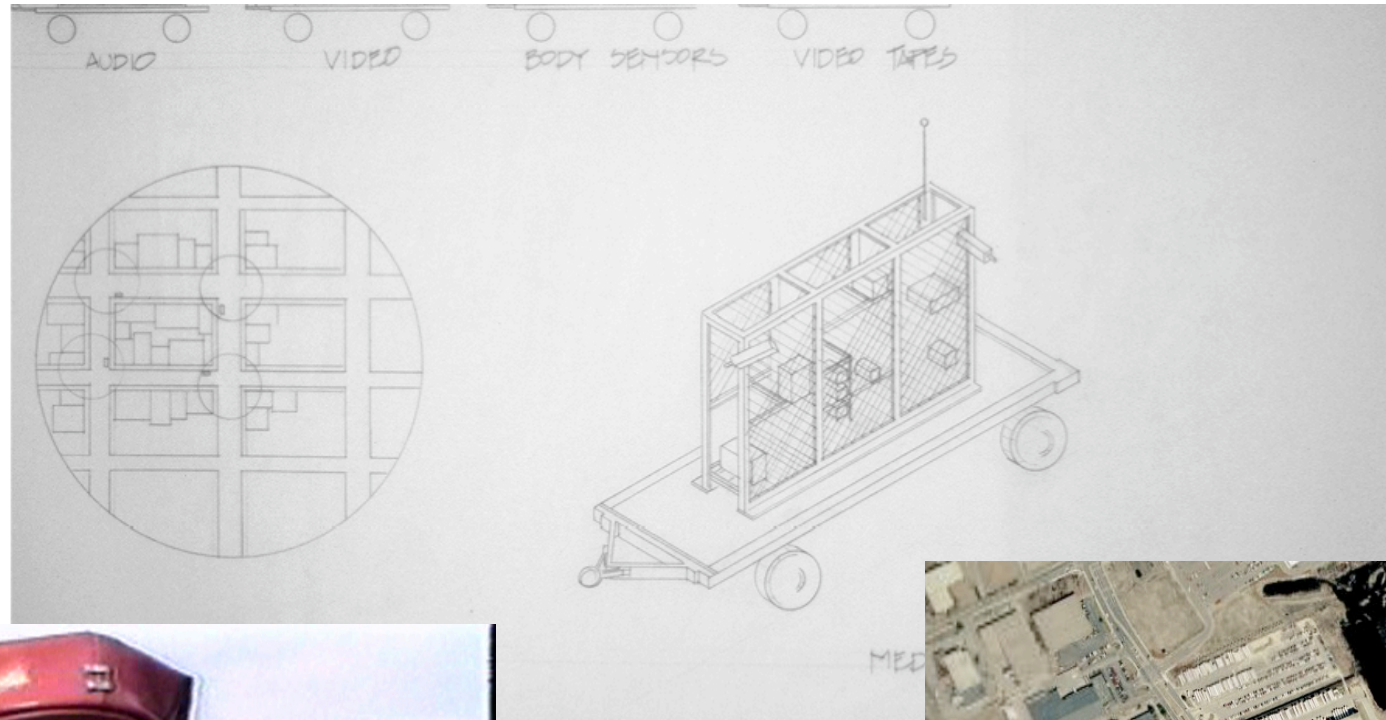
1963 Nam Jun Paik exhibit 13 TV monitors at EXPosition of Music ELEtronic television at Galerie Parnass Wuppertal

1964 Marshall McLuhan published “Understanding Media”

1963–65 Ted Nelson (Projekt Xanadu) coined and published the term hypertext



Praxis ideas- Art interventions into public space









Control and Surveillance
a selection of Topics
Veillant

veillant 🔊 *present participle*

ensuring *pres-p* 🔊 ⓘ

veiller 🔊 *verb*

ensure *v* 🔊 ⓘ (ensured, ensured)

make sure *v* 🔊 ⓘ (made, made)

Chaque soir, je veille à ce que les portes soient fermées.

Every night, I make sure that the doors are locked.

less common:

watch *v* 🔊 ⓘ · keep watch *v* 🔊 ⓘ · see *v* 🔊 ⓘ · take care *v* 🔊 ⓘ · guard *v* 🔊 ⓘ · worry *v* 🔊 ⓘ

Examples:

veiller sur (qqn./qqch.) *v* — keep an eye on sb./sth. *v* ⓘ · look out for sb./sth. *v* ⓘ · closely monitor sb. *v* · watch over sb./sth. *v*

veiller à qqch. *v* — oversee sth. *v* ⓘ · safeguard sth. *v* ⓘ · watch out for sth. *v* ⓘ · endeavour to sth.^{BE} *v* ⓘ

veiller à ce que qqch. *v* — make sure that sth. *v* ⓘ

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▼ External sources (not reviewed)

[...] réglementaire ex ante est de servir l'intérêt des consommateurs, en veillant à ce que les marchés de détail soient compétitifs.

↳ eur-lex.europa.eu

2.5.1 The aim of any ex ante regulatory intervention is to benefit consumers and ensure that retail markets are competitive.

↳ eur-lex.europa.eu

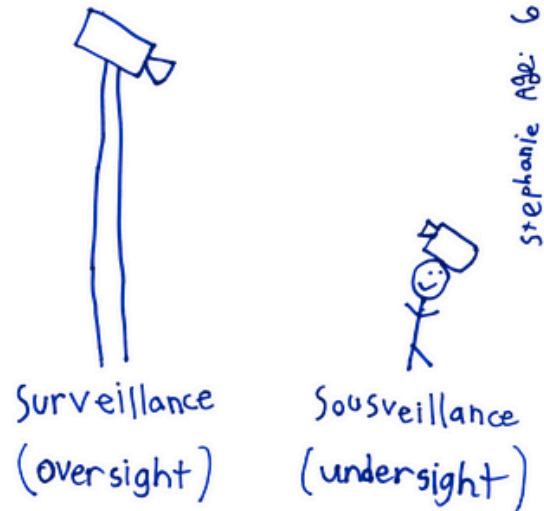
[...] risque d'infection un son isolement efficace en hôpital, tout en veillant spécialement à prendre des mesures de protection pour le personnel soignant

↳ europarl.europa.eu

protection of those at risk of infection through effective isolation in hospitals, with special emphasis on measures to protect carers

↳ europarl.europa.eu

"Big Watching" (surveillance) is when we're being watched. "Little Watching" (sousveillance) is when we do the watching:



With the rise of AI (Artificial Intelligence), more and more it is machines that are doing the watching, rather than people. Thus the question will no longer merely be whether or not we have the right to record the police, but increasingly, whether or not we have the right (and responsibility) to record (and understand) machines and machine intelligence.

This question is at the heart of what Marvin Minsky (the "Father of AI"), Ray Kurzweil, and Steve Mann refer to as "Humanistic Intelligence" [Minsky, Kurzweil, and Mann, "Society of Intelligent Veillance", IEEE ISTAS 2013, pp. 13-17.]

Humanistic Intelligence is machine learning done right, i.e. where the machine senses the human (surveillance) and the human senses the machine (sousveillance), resulting in a complete feedback loop, much like the way the human mind and body work together, or like a person and a bicycle work together:

1. Most-Read Articles (rankings as of February 1, 2018)

Collective Behavior and Social Movements: Process and Structure With Douglas McAdam. Prentice Hall, 1994	Police And Democracy In M. Amir and S. Einstein (eds.) Policing, Security and Democracy: Theory and Practice , vol. 2	Ironies of Social Control <i>Social Problems</i> , pp. 231-246, February 1981	The Interweaving Of Public And Private Police Undercover Work In C. Shearing and P. Stenning, Private Policing . Sage Publications, 1987	Alternative Measures of Police Performance In E. Viano, (ed.), Criminal Justice Research , Lexington Books, 1976
The White Negro and the Negro White In <i>Phylon</i> , Summer 1967, vol. 28, no. 2, pp.168-177	Privacy and Technology <i>Teletronik</i> , 1996 A Hindi-language version of this article, translated by Nathan Zed	Censorship and Secrecy, Social and Legal Perspectives In the International Encyclopedia of the Social and Behavioral Sciences , 2001	Reflections On Academic Success And Failure: Making It, Forsaking It, Reshaping It In Authors of Their Own Lives , B. Berger, ed., 1990	Under-The-Covers Undercover Investigations: Some Reflections on the State's Use of Sex and Deception in Law Enforcement <i>Criminal Justice Ethics</i> , vol. 11, no. 1, pp. 13-24, Spring 1992
Technology and Social Control: The Search for the Illusive Silver Bullet Прочитајте на Македонски In the International Encyclopedia of the Social and Behavioral Sciences , 2001	Identity and Anonymity: Some Conceptual Distinctions and Issues for Research In J. Caplan and J. Torpey, Documenting Individual Identity . Princeton University Press, 2001	Role Models And Role Distance: A Remembrance of Erving Goffman <i>Theory and Society</i> , 13, pp. 649-662. 1984	An Ethics For The New Surveillance <i>The Information Society</i> , vol. 14, No. 3, pp. 171-186, 1998	Notes On The Discovery, Collection, And Assessment Of Hidden And Dirty Data In J. Schneider and J. Kitsuse, Studies in the Sociology of Social Problems . Ablex, 1984
"Only Connect"—E. M. Forster In An Age Of Electronic Communication: Computer-Mediated Association And Community Networks With Mary Virnoche. <i>Sociological Inquiry</i> 67(1):645-650				

Surveillance (oversight), Sousveillance (undersight), and Metaveillance (seeing sight itself)

Steve Mann

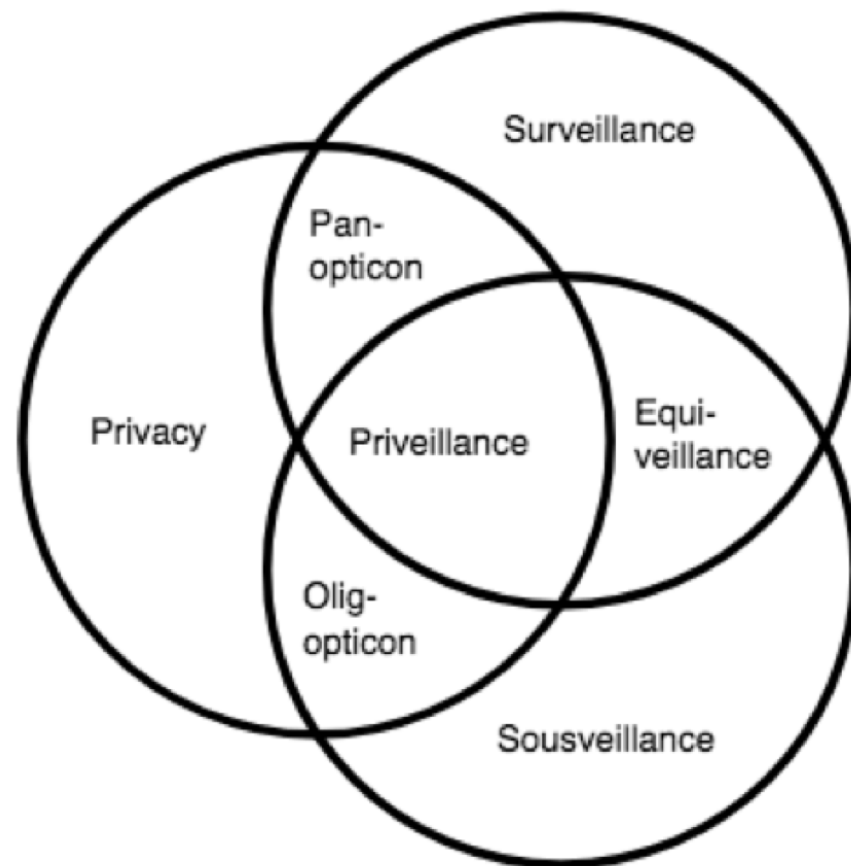
Humanistic Intelligence Institute, Veillance Foundation
330 Dundas Street West, Toronto, Ontario, Canada, M5T 1G5
<http://www.eyetap.org>

Abstract

Surveillance is an established practice that generally involves fixed cameras attached to fixed inanimate objects, or PTZ (Pan Tilt Zoom) cameras at a fixed position. Sur-veillance only provides part of the veilance story, and often only captures a partial truth. Further advances in miniaturization, together with wireless communication technologies, are giving rise to kine-matic veilance ("kineveilance"): wearable, portable, and mobile cameras, as well as unpersoned aerial vehicles (UAVs). These additional veilances give us a more complete picture: multiple viewpoints from multiple entities bring us closer to the truth. In contrast to the extensive mathematical and conceptual framework developed around surveillance (e.g. background subtraction, frame-differencing, etc.), now that surveil-



Figure 1. "Stealth" streetlight camera by Apollo, and "Embedded Invisible PTZ IP Camera" by OWLS AG. Here surveillance cameras are concealed inside ordinary objects like streetlights, which can be placed throughout entire neighbourhoods or cities, for complete surveillance,



VRTO – VIRTUAL & AUGMENTED REALITY WORLD CONFERENCE & EXPO

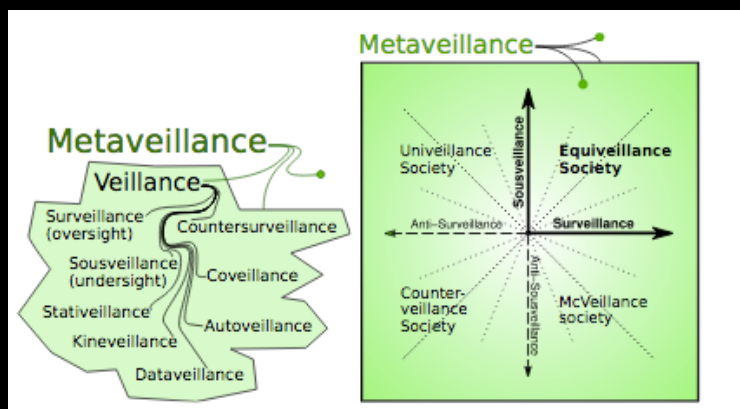
A unique, international exhibition, professional conference and solutions-focused symposium exploring arts, culture, society, humanities, ethics and sciences through immersive technologies.



A one-of-a-kind symposium for experiential media and technologies.

words and iconography

Metaveillant



many examples, other vaillant



<https://www.cia.gov/news-information/featured-story-archive/2015-featured-story-archive/corona-declassified.html>

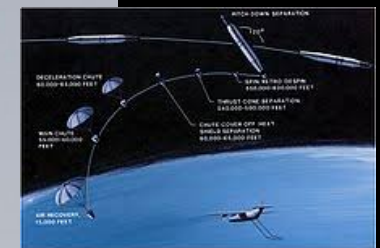
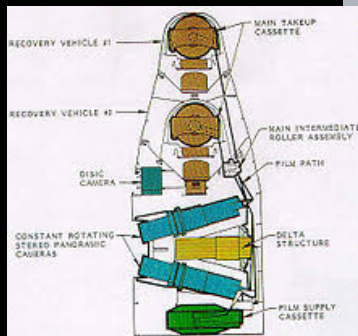
...more of the worlds space and outer space become surveillance societies the nature of life with surveillance is not homogeneous. What are the realities of surveillance...its nature our veillance makes populations visible and differentiates between their members, surveillance itself features varied techniques intensities...

A Look Back ... CORONA: The Nation's First Photoreconnaissance Satellite

During the height of the Cold War, America's policymakers were concerned about the likelihood of a surprise nuclear attack from the USSR. Soviet atomic and space advances were a major concern. Although the U-2 reconnaissance aircraft had provided imagery to dispel the alleged "Bomber Gap" in the late 1950s, the shootdown of Francis Gary Powers' U-2 in May 1960 heightened the need for a more reliable reconnaissance system.

The Birth of the CORONA Project

The idea of the CORONA system was first broached in late 1957. The purpose of CORONA was to provide broad imagery coverage of the USSR to identify missile launch



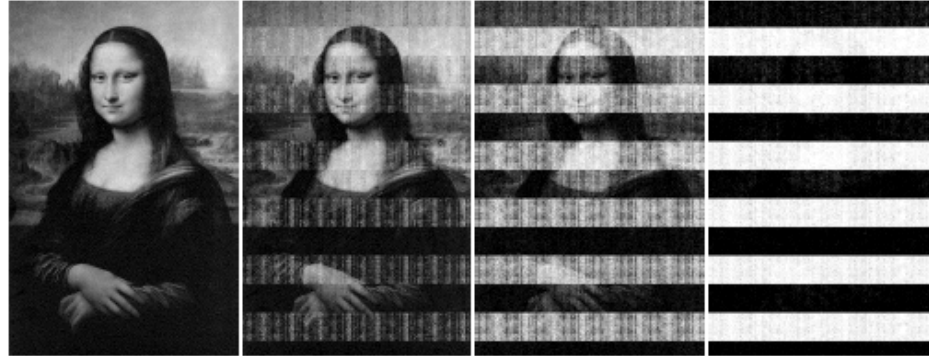


Figure 5: We loaded a bitmap image into memory on Machine A, then cut power for varying lengths of time. After 5 seconds (left), the image is indistinguishable from the original. It gradually becomes more degraded, as shown after 30 seconds, 60 seconds, and 5 minutes.

varying the temperature. This may also be a result of manufacturing variations, which result in some cells leaking charge faster than others.

To visualize this effect, we captured degraded memory images, including those shown in Figure 5, after cutting power for intervals ranging from 1 second to 5 minutes, in 1 second increments. We combined the results into a video (available on our web site). Each test interval began with the original image freshly loaded into memory. We might have expected to see a large amount of variation between frames, but instead, most bits appear stable from frame to frame, switching values only once, after the cell's decay interval. The video also shows that the decay intervals themselves follow higher order patterns, likely related to the physical geometry of the DRAM.

3.4 BIOS footprints and memory wiping



The Fat Jew  @FATJEW · 3 May 2014
SEEMS LEGIT



 8  301  285

The Fat Jew  @FATJEW · 3 May 2014



 7  150  233



disentangle the subject matter from transparency. other subjects of old surveillance definitions, categories, protecting certain old processes and propaganda



This EPISODE
of
BLACK MIRROR
SUCKS

"JUSTICE WILL NOT BE
SERVED Until the
UNAFFECTED ARE AS
OUTRAGED AS THE
AFFECTED" Benjamin
Franklin







China Deploys Drones, Citizens and Big Data to Tackle Coronavirus WSJ



<https://www.wsj.com/articles/fever-detecting-goggles-and-disinfectant-drones-countries-turn-to-tech-to-fight-coronavirus-11583832616>

?

How to use the virus-induced situation to build up momentum for social-ecological transformation?

Introduction

Control & surveillance, by Julia Scher (KHM Cologne) and Jennifer Schubert (Unibz)

Description

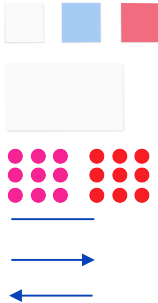
- Please use this template as a basic structure for your working group. You are welcome to vary the suggested process. Open another frame, make some drawings, create mindmaps, paste pictures ...
- Each working group has **120 minutes**.
- After the introduction round, please distribute the roles time keeping and moderation.
- We ask you to name at least three outcomes for concrete actions at the end of the workshop - these will be discussed in the plenum.
- Please keep the overarching conference question in mind:
How to use the virus-induced situation to build up momentum for social-ecological transformation?
- Please note all names of participants.
- We wish you an inspiring and successful exchange!

Rules


- try to be on time
- mute yourself, just unmute when you speak
- when you first speak, state your name
- be kind, empathic and constructive
- set clear objectives (including timing and accountabilities) following the template
- the purpose is not to win an argument, but to hear many points of view and explore many options and solutions to get into action
- allow everybody to speak and to contribute
- one person speaks at a time, but all participants can comment in the chat
- seek first to understand, not to be understood

Participants: Name, organization

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.

Material Bar

Process Proposal

1. Introduction round – 10 min facilitators + 10 min participants

2. Input Presentation & Discussion - 30 min

Facilitators can shortly present something to feed the discussion.

Discuss the topic and make notes and insights.

3. Development of Approaches & Ideas around the topic - 30 min

Collect emerging ideas, opportunities and chances generated by the discussion.

Try to develop your ideas together.

4. From ideas to action 1 – 30 min

Define 3 concrete ways for taking action on your topic.

[Think about individual, collective, institutional action. Think about scale - micro, meso, macro. Think about who takes the action and who to target.]

Control & Surveillance

Elaborated Approaches & Outcomes

THE MOBILE PARADOX

visible and invisible

His surface is inviting, smooth, appealing, glittery. At the same time it houses the invisible, the dangerous, the virus.

permission and submission

Every time I interact with it I submit information. The information is received, intercepted, reproduced. This information can be controlled. I am this information.

How much am I willing to submit?

security and insecurity

It also help me control my own fears, anxieties, loneliness, safety. I can check the latest news, I can call my friends, I can mirror into it before an important meeting. But protocols, apps, OS can trace my position, listen to my calls, store my pictures.

How much of my private life can be shared for security reasons?

Surveillance is invisible, it happens in my hands, though the smooth, glittery device I hold..





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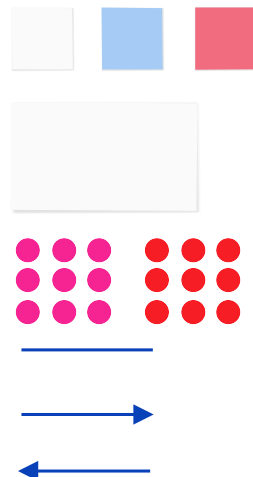
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Participants: Name, organization

1. Julia
2. Jennifer
3. Andrea
4. Giovanna
5. Lynn
6. Tessa
7. Veronika
8. Beatrice
9. Viola

Material Bar



Process Proposal

1.

Introduction round - 10 min facilitators + 10 min participants

Who are you? Where are you? Why or how are you interested in this topic?

Please make notes below.

Giovanna - freelance designer and journalism. Geographical location related to virtual boundaries. **Is there any positive option in surveillance? Is the solution a technological one?**

Lynn - human-computer interaction student in trento, part of a trans feminist collective. Interested in how **social/activists movement relate to control and surveillance**. Not easy to complete a proper reasoning in this strange time.

Veronika - transformation design master in Braunschweig. Concerned about the whole discourse around the proper use of a new app (...) to be soon introduced in Germany. **Open health data**, do we really want them freely accessible? **Data privacy** in this time of crisis (...). Not too much discussion (mobile-phone data on movements...). **Bias on tech-people**, only them are able to **talk politically** about tech related things.

Beatrice - from Frankfurt, communication designer. Interested in the **different point of view** (Germany - Italy as personal experienced comparison).

Viola - Exchange student in Bolzano, media and political studies BA and then Transformation studies MA. Who is designing the tech tools? Biopolitical aspect of it..

Tessa - Art student. Fascinated/interested in how countries deal differently with data gathering and control/distribution.

2.

Input Presentation & Discussion - 30 min

Facilitators can shortly present something to feed the discussion.

Discuss the topic and make notes and insights.

Spontaneous Inputs

fear about your personal health information	AI as discrimination trigger extortion through engagement
Bio Politics	
Truth	Monitoring Neighbors & Family Members > Power of Military/Police
discussion about technology needs to open up	citizens get passive and loose control about themselves
everybody should be enabled to talk about technology (it affects everybody)	Great momentum to make art and activism shine :)
What comes after? Whats about the technology implemented right now?	Surveillance is invisible, feels smooth, ... the bigger picture of Submission Protocols, what does it mean to submit?? ↓
Case Study: „if everything's so smooth, why am I so sad?“	Tech-shapes that produces acceptances (round edges..)
When disinfecting mobile phone it feels weird: you cannot see the virus	paraphrasing: "the cleanest ecology ever created is the tech one"

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AI as discrimination trigger

excortion through engagement

Monitoring Neighbors & Family Members

> Power of Military/Police

citizens get passive and loose control about themselves

Great momentum to make art and activism shine :)

Surveillance is invisible, feels smooth, ...

the bigger picture of Submission Protocols, what does it mean to submit??

Tech-shapes that produces acceptances (round edges..)

paraphrasing: "the cleanest ecology ever created is the tech one"

3.

Development of Approaches & Ideas around the topic - 30 min

Collect emerging ideas, opportunities and chances generated by the discussion.

Try to develop your ideas together.

What we are willing to give up?
Giving up Freedom of Movement

How to reach an unconditional Solidarity (for everybody)?

Solidarity is mis-used in different ways (solidarity for privileged people, not so much for minorities)

Gary Marx sub societies (1986):

1. engineering society
2. dossier society
3. actuarial or predictive society
4. transparent or porous society
5. self-monitored society
6. suspicious society

Who needs our solidarity?
Who and why is someone asking for it? (government, citizens,...)

Acknowledgment of the dramatic situation that others are living. Can be seen as a good beginning for the development of a more shared solidary feel.

EMOTIONS

PERSONAL

Forced Apps through operating systems or make up conditions to enter supermarkets

Is there a determination date of using those technologies?

TECHNOLOGY

In or out?
Based on money you have

To protest against usage of those technologies?

Decisions about Life or Death?

POLICIES

Internet based infrastructure. What would happen if Internet stops working?
Are there analog escamotages?

Are now areas with no internet (»Funkloch«) get more privileged because their are less surveillable?

4

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Giving up Freedom of Movement

**How to reach an
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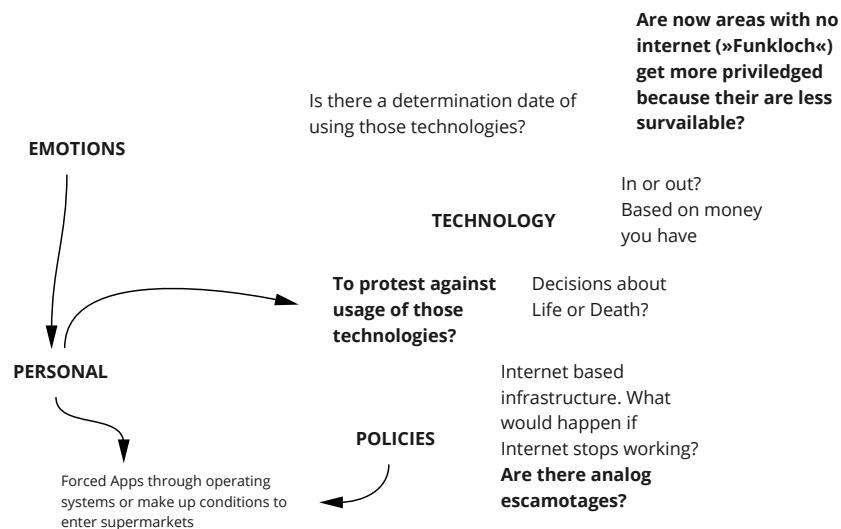
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4.

From ideas to action ! – 30 min

Define 3 concrete ways for taking action on your topic.

[Think about individual, collective, institutional action.

Think about scale - micro, meso, macro.

Think about who takes the action and who to target.]

Which kinds of protest
are possible in the time
when public space is
not accessible?

Protest through bad
voting of apps (ex:
homework app for
students/Japan?)

Digital Protest (e.g. Seebrücke)
> synchronous common
tweeting of politicians
(with hashtags
"leavenoonebehind") > how
these new forms of protest can
even improve and bundle
actions?

Implementation of
offline-Activisms with
digital tools that can be
prototyped in this
moment.

1. Smoothness, Glitter, family connection vs. Virus (security/insecurity) **Andrea**
2. How to achieve unconditional solidarity?
3. Funkloch areas (Controlled – uncontrolled space?) **Giovanna**
4. Protect & (various) protest against power sets?
5. How to be more active?

jschubert@unibz.it