

PROJECT

The digitalisation is widely conceived as one of the major media shifts in human history, comparable in its impact to the fixation of thoughts and knowledge in written text or its accelerated distribution through the invention of book printing.

Today we find ourselves in the on-demand and real-time dispositive of networked communication with ever new inclusive or creative forms of expression or information exchange from written messages to image- and time-based media. But while using all these features there is a subliminal awareness of an underlying physical, political and economic reality to this exchange – nothing comes for free, we are just often not quite sure in which currency we are paying for. Both sides of this coin can be considered promising starting points for cultural and communicative investigations as well as a call for artistic invention and intervention through the very interfaces as they are fundamentally transforming our social interactions.

Hence, it became a crucial part of the *imagit*-project to gather information both on recent developments in the use of new technical possibilities and devices and digital spaces such as social media, scientific platforms, and distribution channels as well as the new form of behaviour from the single individual to political institutions within. Also, the history of the image and the icon approximates the same origin as the invention and representation of language. The term nonverbal communication has been

thoroughly discussed, taking into consideration its qualities to overcome linguistic borders, culture-specific codes and hegemonies as well as the (temporary) withdrawal from control mechanisms.

The issue of freedom of speech is currently one of the most crucial topics – anyone involved with the conception of an openly accessible communicative tool is requested to reflect on the negative outcomes of the provided infrastructure. Those who raise their voices right now in the name of the people often represent minorities. At the same time, online activity can be strongly tied to the neurotic feeling of being watched and controlled.

Hereafter, another objective of the project was to contribute to clarifying the terms and effects of this inconceivability. Supporting this process, the consortium decided to work on tools that reveal different individual backgrounds that are leading to these outcomes in a transparent manner.

Altogether, the project consortium consisting of Karlsruhe University of Arts and Design, *brainz*, *HANGAR.ORG* and The Hungarian University of Fine Arts, supported intense interdisciplinary interactions among artists, designers, communication and media-theory specialists, scholars, technologists and citizens with the aim to find and stretch out new models of symbolic as well as cross-border interactions in contemporary global communication.

TOOLS

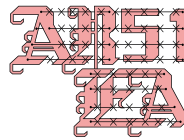
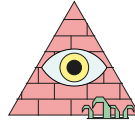
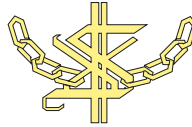
Focusing on mobility-led devices, one inevitably enters the fighting pitch between the two common operating systems: Android and iOS. By far, this fight is not just technical any more. Researching the functionalities, you will find as many pro's as con's for both providers. The market-fight became much more a cultural or social discussion supporting values like aesthetics, social status, ethics in data security and the user's flexibility. As interesting as the digging into these issues could turn out, the consortium as a whole decided to not choose sides in this battle. Eventually, a methodical experiment within the creative experiment took shape: imagit set up two developer groups, one for each system. Both groups have been provided with the same research and artistic material, but limited their interactions among each other to a minimum.

The result offers a variety of functions, packed in one or several applications with different interface designs and different approaches to the same topics – no preferences attached.

VISUAL EXPRESSIONS

The two ways of visual expression by Michael Bielicky and Kamila B. Richter as well as Moritz Appich and Bruno Jacoby act on the topics of cover-up, surveillance and cultural codes following the idea of contemporary digital hieroglyphs. The design aims to follow the concept of shifting communication not only via the transfer between letters and icons but between the communication behaviour,

perception and the process of meaningfulness as well.



TRIP WIRE KEYBOARD

Ever since the NSA leaks in 2013 shed light on the extensive, global surveillance of all sorts of digital communication, a subliminal suspicion accompanies us picking up the phone, writing a WhatsApp message or starting a Google search, that whatever you say or type in can or might be used against you. While you probably won't use certain wordings in reference to attacks or military after following what happened to authors of ambiguous slang formulations in Twitter-messages in recent past, you're far from the trip-wires of everyday vocabulary that might put you on a watch list.

A seemingly harmless text message like:

"Bob's credit card was rejected at the nike store - we'll check with the bank after lunch time"

may already include as many as six code-expressions used by organizations monitored by the international

networks of intelligence agencies. The Trip Wire Keyboard addresses this issue at the very threshold to the digital realm – the keyboard interface. While typing on your phone or tablet, the Trip Wire Keyboard automatically scans the input for terms or acronyms from blacklists. In case it recognizes one of them, an immediate manipulation takes place: each letter of the word is substituted by a similar Unicode symbol that allows you and your recipients to read it, while at the same time rendering it meaningless to the data mining algorithms scanning your interactions. The sentence above could then look like this:

“bØß's Credit Card was rejected
at the N/k& store - we'll check
with the bank after lunch time”.

Here you can also see multiple outcomes of the manipulation since each is substituted independently by chance: “THC” and “Nk&”.

The terms found on blacklists range from day-to-day like in Bob's example, to cryptic (“WMATA”) and revealing ones (“Unix security”). And since every proper keyboard comes with icons or emojis we designed our very own unique visuals based on this vocabulary – ready for you to share. To see which word the icons are based on you can check your statistics: Once you typed a term from the blacklist it will appear next to its icon while the keyboard starts counting and displays the total of critical words you typed in already. But no worries: this and all other functions are solely happening on your device – we're not collecting any of your data.

Another disclaimer (of the presumably obvious): this app will not protect you from surveillance! The lists we used for making this can easily be found online. And in case you've heard of Alan Turing and the Enigma Machine you will see that we do not offer consistent encryption.

But the keyboard will sometimes appear in ways that are cryptic to you – the devices and technological gateways people use to communicate, seem universal. However, the consequences of a silly tweet will differ from region to region. Imagine you are not only watching your language but also the numbers you dial, the shops you visit and the streets you use to go to work, all in order to avoid resembling a target.

The Trip Wire Keyboard will be available at Google Play Store and F-Droid, and you can find the code under: imagit.net/imagit-app and crit.hangar.org/toolbox/ – developers are very welcome to extend the keyboard functions as well as the libraries of censored words and icons.

DEVELOPMENT:

Michael L'Hoste, Raphael Martin

INTERFACE DESIGN:

Moritz Appich, Bruno Jacoby

ICONS:

Michael Bielicky, Kamila B. Richter,
Moritz Appich, Bruno Jacoby

CONCEPT:

Lukas Rehm, imagit-team

IOS APPLICATIONS

Starting with a keyboard application in the frame of the already stated surveillance context, the following approaches turned out much more driven by the question of how the digitalisation changes the values of communication. If not only words but also visuals and sounds are exchanged in a frequent manner, the value of each conversation could turn into a very differently rated piece of art. Hence, three further applications of *imagit* are strongly focused on iconisation in digital messaging.

The first application solely pursues the well-known exchange of text to icon but less like the emoji-kind than more in a way of artistic and symbolic representation.

In a second step, represented by another application, the exchange from word to icons is enlarged to an exchange of word and sound. Additionally, you can create your own symbolic language that only you and your familiars can decode by building up your own library of meanings with icons, texts and sounds.

Within the third application messaging becomes dynamic and opens a wide new field to express yourself. The keyboard will let you animate your messages by using an artistic set of icons to enrich your way of communication.

The *imagit* keyboard apps *IMG*, *VID*, *ANIM* and *CTRL* will be available at the App Store, the code under imagit.net/imagit-app – developers are very welcome to extend the keyboard functions as well as the libraries of censored words and icons.

DEVELOPMENT:

Nikolay Tutarinov by using
Xcode software

INTERFACE DESIGN:

Tomáš Fišera

ICONS:

Michael Bielicky, Kamila B. Richter,
Moritz Appich, Bruno Jacoby

CONCEPT:

imagit-team

RESEARCH

INTERFACE POLITICS. GREDITS PUBLICATIONS INTERFACE

Politics is a publication of GREDITS (Research Group in Design and Social Transformation), which includes all presentations and keynotes held during the First International Conference Interface Politics that took place in Barcelona in April 2016. The conference aimed to reflect on the role and effects of interfaces in current communicative and productive systems to produce alternative narratives against the apparent naturalness projected by the instruments.

TRACKING FORENSICS

Vladan Joeler worked in collaboration with the research group Critical Interface Politics in the development of a research project on Ethical Uses for Data Collection. The residency focused, on one hand, on finding practical methodologies to develop forensic analysis on the different agents that have access to our data and, on the other, implementing and disseminating tactics and strategies to protect our digital identity through different devices connected to the network.

The three visualisations represent for one thing a wider picture of the data flow and a map of key locations and actors by a conducted analysis of the data paths to the top 100 websites visited by the users located in Spain. Otherwise, the infrastructure of guifi-net, one of the world's biggest bottom-up, citizen-driven, free, open and neutral telecommunications

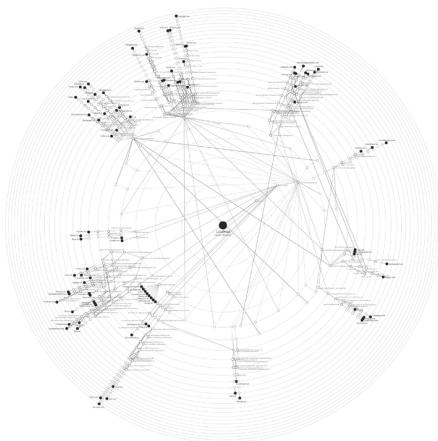
networks. This unique network, based mostly in Catalonia, consists of more than 32.500 operating nodes. And lastly, a logical map of permissions that applications for smartphones require the users to grant in the process of installation. The purpose thereof is to show in a clear way what users agree to. Users often neglect the importance of the Terms of Service, Privacy Policies and other legal documents they are bound to by installing applications on their devices. On the other hand, the companies that sell or offer those applications for free, often make these documents in a way that the user grants many more permissions than the required minimum for the application to operate. Personal data of many formats (mostly content and metadata) has become a new type of currency. It is estimated that the accumulated financial value of personal data stored online could reach € 1tn annually by 2020.

Tracking Forensics Atlas

A Tracerouting Top 100 Domains
Joeler, V. &
Critical Interface Politics Research Group
Barcelona, Spain
Nov. & Dec. 2016

This visualization represents the data paths to the top 100 websites visited by the users located in Spain. The data was collected through a tracerouting process that identifies the network paths between the user's device and the destination website. The visualization shows the complexity of the network and the number of hops required to reach the destination. The data was collected through a tracerouting process that identifies the network paths between the user's device and the destination website. The visualization shows the complexity of the network and the number of hops required to reach the destination.

critical interface politics research group



Tracking Forensics Atlas

Mapping ISP : Guifi.net

B

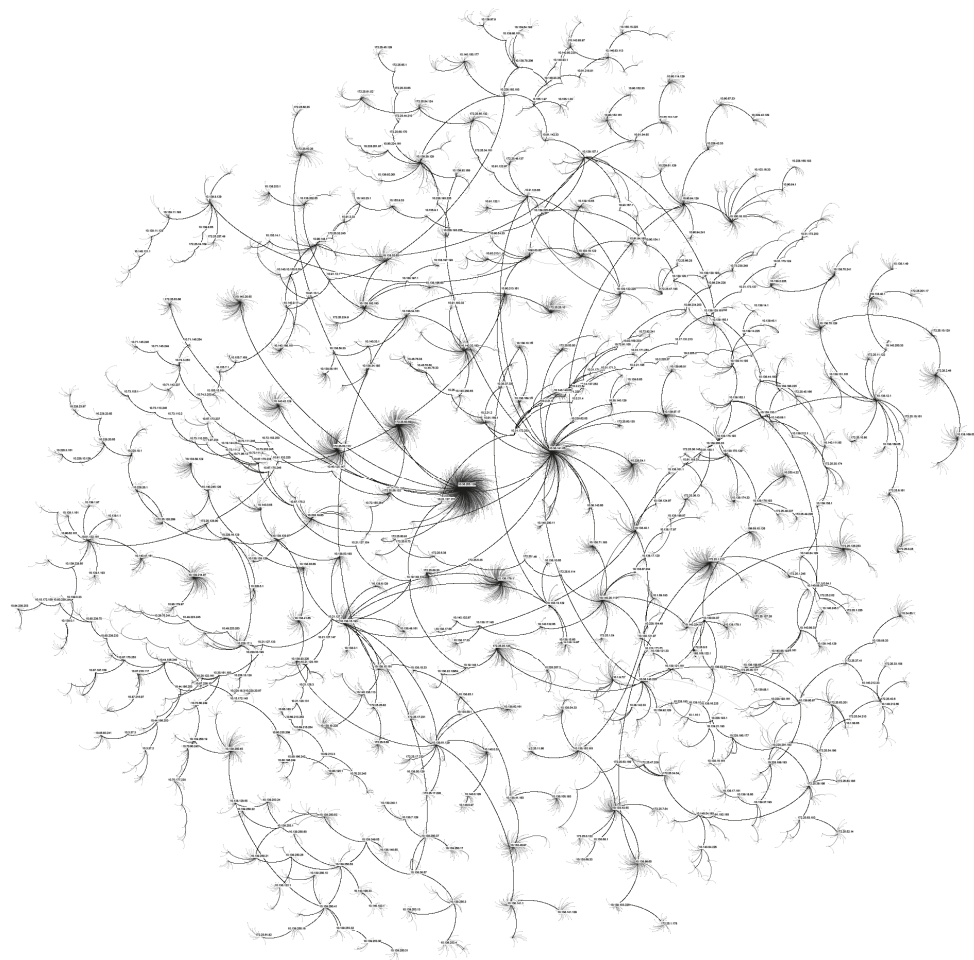
SHARE Lab +
Critical Interface Politics Research Group
at Hangar.org
Nov & Dec 2016

First step of understanding network infrastructure is to understand the structure of our nearest network, network owned and owned by our internet service provider. During our research we had a luck to explore and map one of the World's biggest bottom-up, citizen-driven, free, open and neutral telecommunications network: guifi.net. This unique network, based mostly in Catalonia consist of more than 32.500 operating nodes. This map is the network graph of guifi.net, where each dot represent one router, server or a computer and each line represent a link, a wireless or a cable that connect them.

HANGAR.ORG

IMAGIT

European Union
Culture Programme



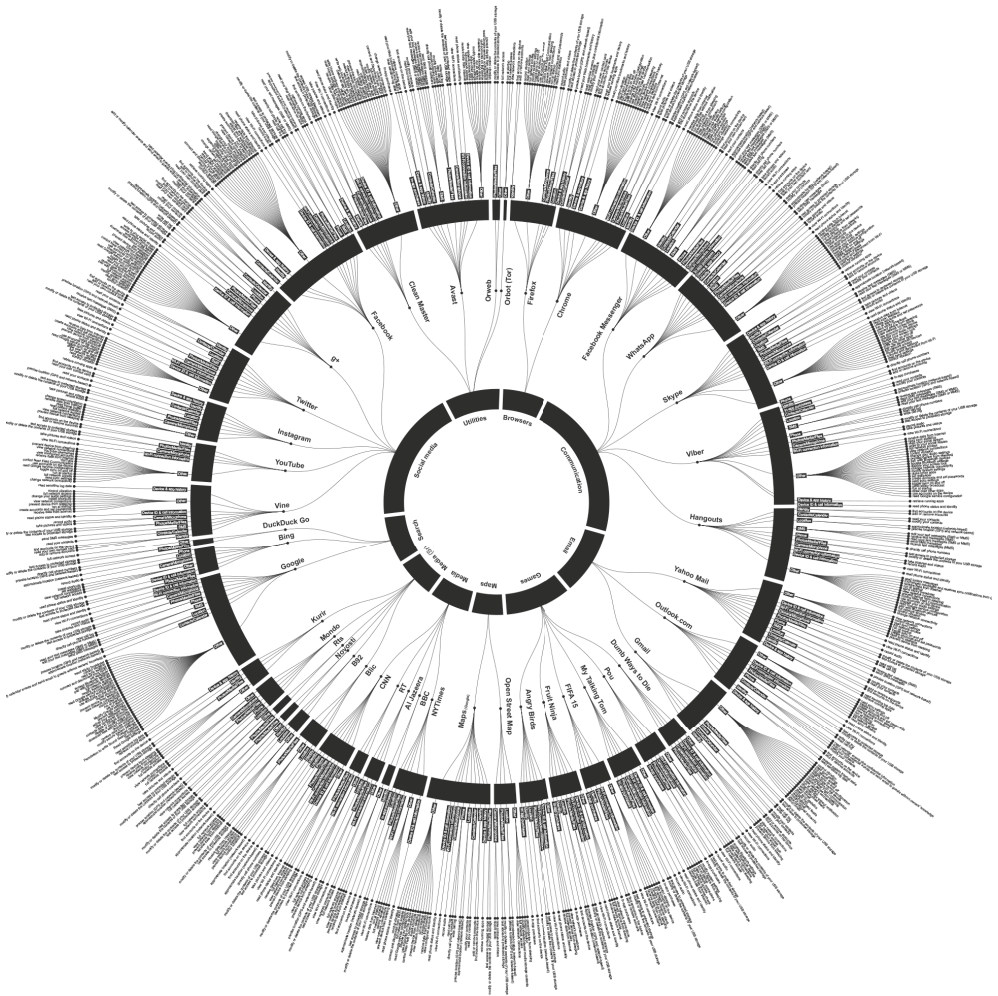
Tracking Forensics Atlas

Mapping Mobile Phone Permissions

SHARE Lab +
Critical Interface Politics Research Group
at Hangar.org
Nov & Dec 2016

The output of this research is a legal map of permissions that applications for smartphones require the users to grant in the process of installation. The purpose thereof is to show, in a clear way, what users agree. Users often neglect the importance of the Terms of Service, Privacy Policies and other legal documents they are bound to by installing applications on their devices. On the other hand, the companies that sell/offer those applications for free often make these documents in a way that the user grants many more permissions than the required minimum for the application to operate. Personal data of many formats (mostly content and metadata) has become a new type of currency. It is estimated that the accumulated financial value of personal data stored online could reach €1tn annually by 2020.

**HANGAR.
ORG**



SIMILAR PROJECTS

<http://projectseen.com/>

<http://nsa.motherboard.tv/>

INFO

<https://crit.hangar.org/toolbox/>

<http://www.zdnet.com/article/top-374-keywords-the-u-s-government-monitors/>

<http://www.dailymail.co.uk/news/article-2150281/REVEALED-Hundreds-words-avoid-using-online-dont-want-government-spying-you.html>

<http://attrition.org/misc/keywords.html>

<https://theintercept.com/2014/07/23/blacklisted/>

<https://theintercept.com/document/2014/07/23/march-2013-watch-listing-guidance/>

<https://netzpolitik.org/2014/geheime-informationen-wie-die-ueberwachung-von-bnd-und-nsa-in-bad-aibling-funktioniert/> (German only)

IMPRINT

imagit c/o Staatliche Hochschule für Gestaltung Karlsruhe
Lorenzstr. 15
76135 Karlsruhe, Germany
T +49 (0) 721/8203 0
F +49 (0) 721/8203 2159
www.hfg-karlsruhe.de
www.imagit.net

This project is co-funded by the Creative Europe programme of the European Union.



digital first.
brainz

INTERMEDIA
M — ●

**HANGAR.
ORG**

Staatliche Hochschule für Gestaltung Karlsruhe  Karlsruhe University of Arts and Design

Co-funded by the
Creative Europe Programme
of the European Union

