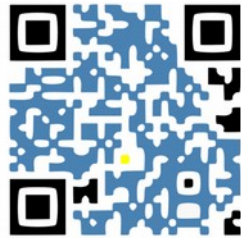


Alberto Cammozzo



cammozzo.com
TagMeNot.info



Sviluppo tecnologico e le sue conseguenze: tra divario digitale, privacy e sorveglianza

incontro organizzato dall'associazione universitaria FUCI Padova

12 novembre 2014

Temi proposti

/1/ Conseguenze delle tecnologie

/2/ Divario digitale

/3/ Privacy

/4/ Sorveglianza e controllo

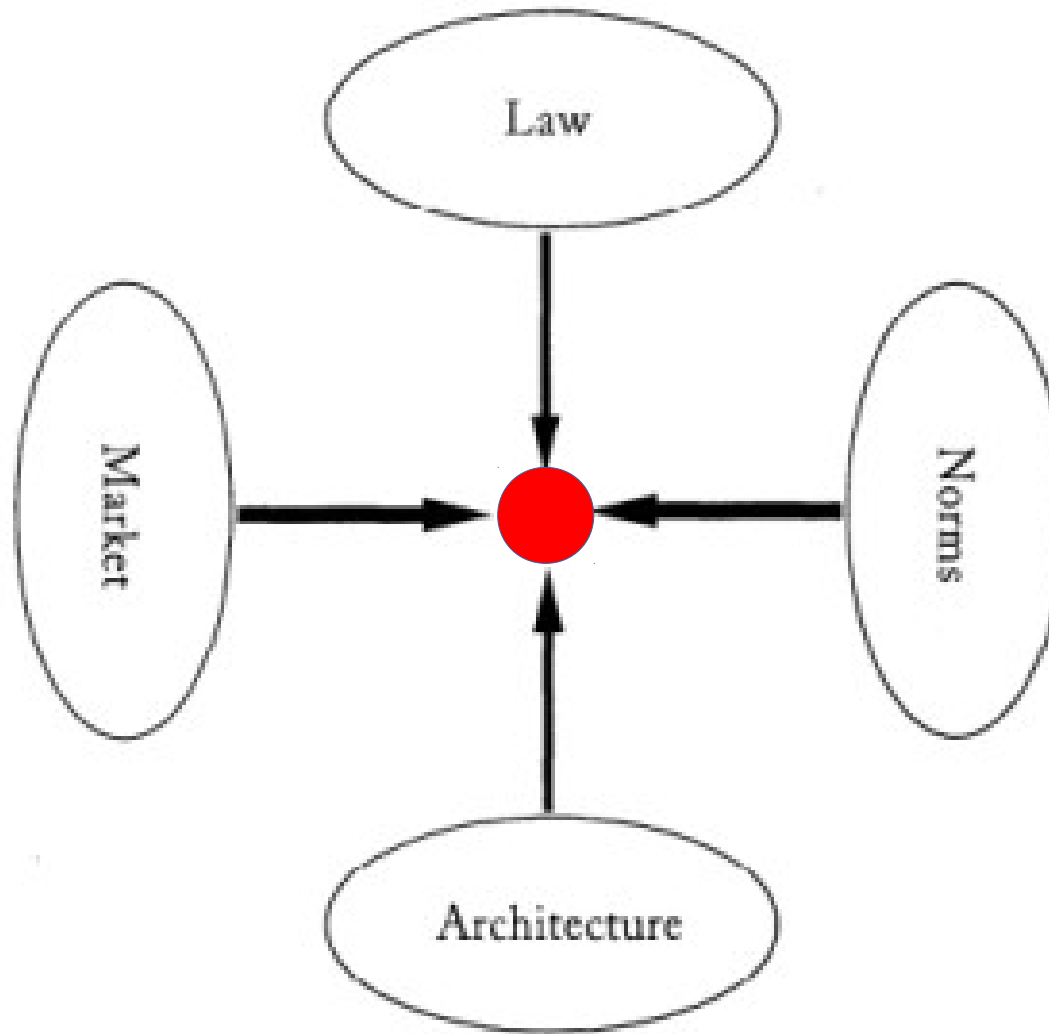
Che fare?

Conseguenze delle tecnologie
 $\approx$
Impatto delle ICT digitali

Information & Communication Technologies



Le ICT *regolano* → “Code is law”



Lawrence Lessig 1998 “The New Chicago School”
1999 “Code and Other Laws of Cyberspace”



Sviluppare artefatti tecnologici ha un impatto molto simile a costruire edifici, scrivere leggi, definire norme, fissare prezzi



/digital divide/

Digital divide : The gap between those with regular, effective access to digital technologies and those without

***Digital divide** (n) The gap between those with regular, effective **access** to digital technologies and those without*

L'uso delle ICT
può **consentire** o **inibire** l'accesso
alla comunicazione
ed ai contenuti

Fattori che possono unire o separare le persone:

- Età e genere
- Disabilità
- Censo
- Alfabetizzazione informatica
- Presenza di corrente e reti dati
- Norme personali o della comunità di appartenenza

esclusioni **non intenzionali**:

- analfabetismo
- disabilità
- isolamento

esclusioni **deliberate**:

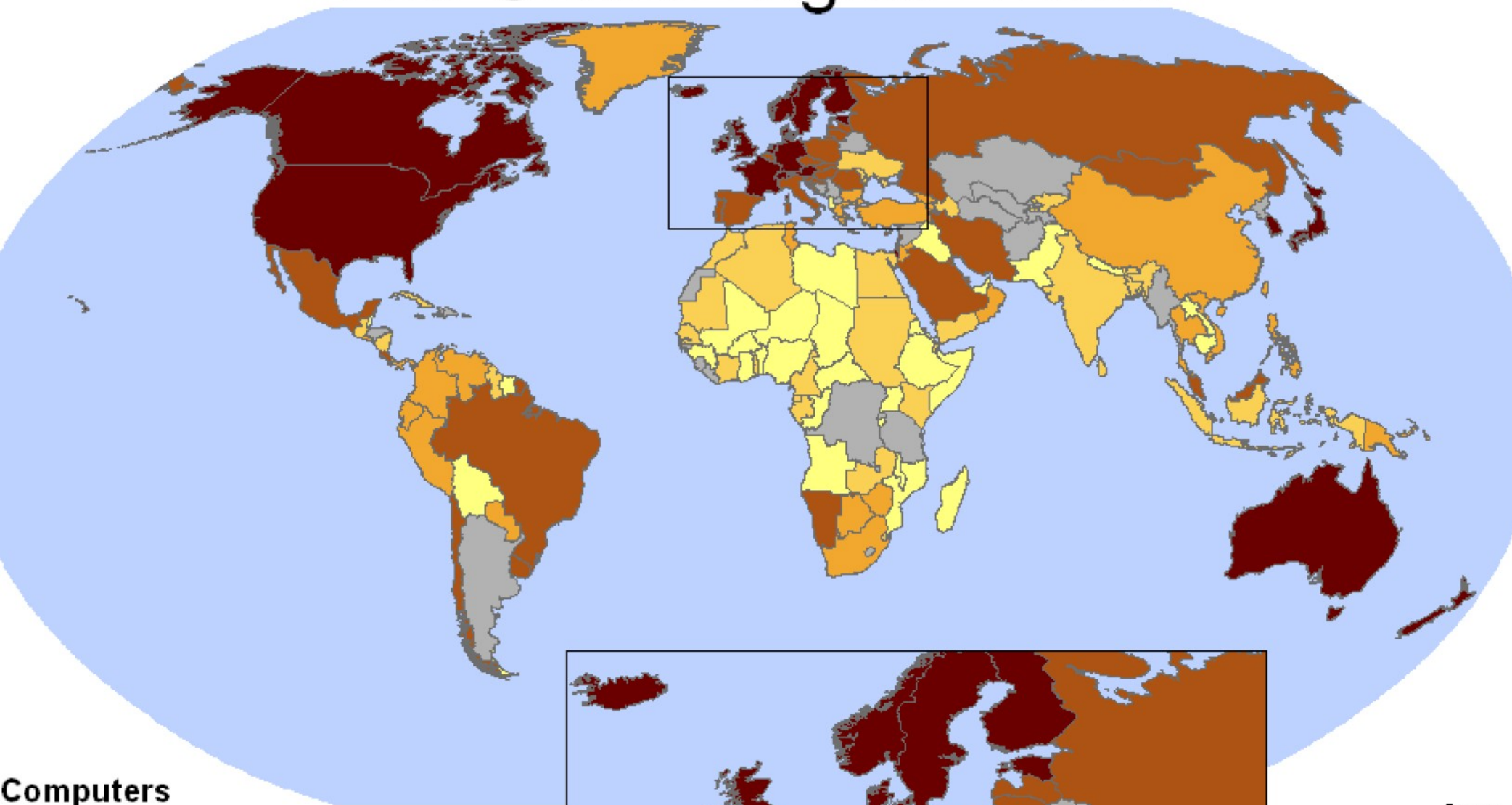
- data *lock-in*
- censura politica, controllo
- DRM – mezzi tecnologici di protezione
- non neutralità (di Internet)

Il *modo* in cui le ICT sono costruite può inibire o facilitare la costruzione di un ambiente più *inclusivo*

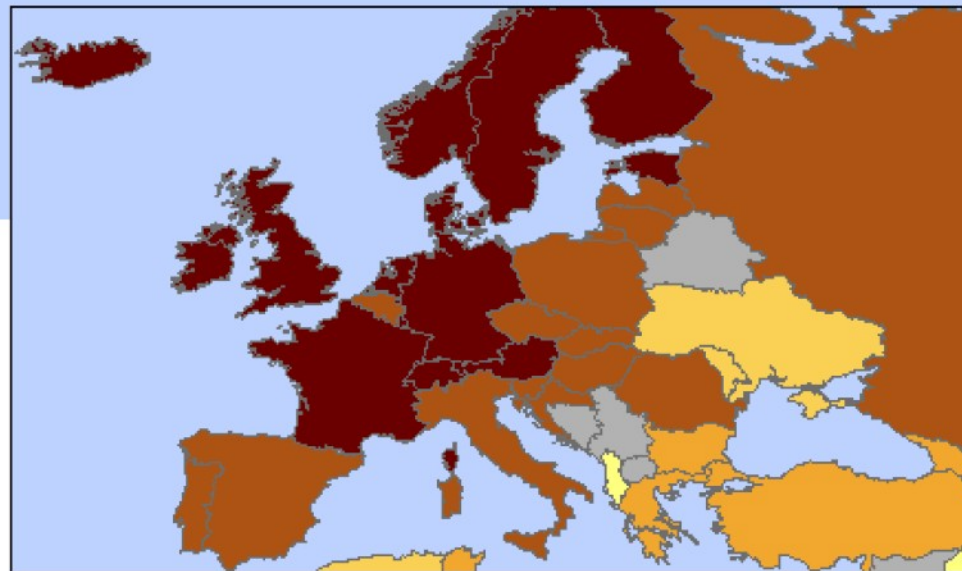
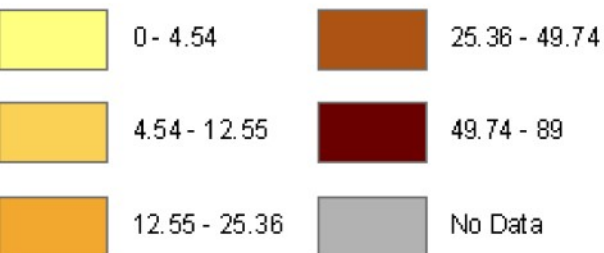
- per sesso, età, disabilità
- per cultura e lingua
- per opportunità di guadagno
- per opportunità di innovare

Esempio: accesso a un computer

The Global Digital Divide



**Computers
Per 100 People**



Source:
United Nations
Global Development
Goals Indicators

Robinson Projection

Cartography by:
Derek Boogaard

Esempio: siti web per non vedenti



You need to upgrade your Flash Player.

Go there and be right back

[fwa]

ZAPYTANIE OFERTOWE: Stworzenie innowacyjnych technologii i narzędzi do budowy portali ogłoszeniowych i aplikacji przez Sensi Soft Sp. z o.o

[ue]

<< ↑ ↓ Viewing <Sensi Soft>

Digital divide (n) *The gap between those with regular, effective access to digital technologies and those without* [use]

Esempio: Motori di ricerca



Searcher or Index



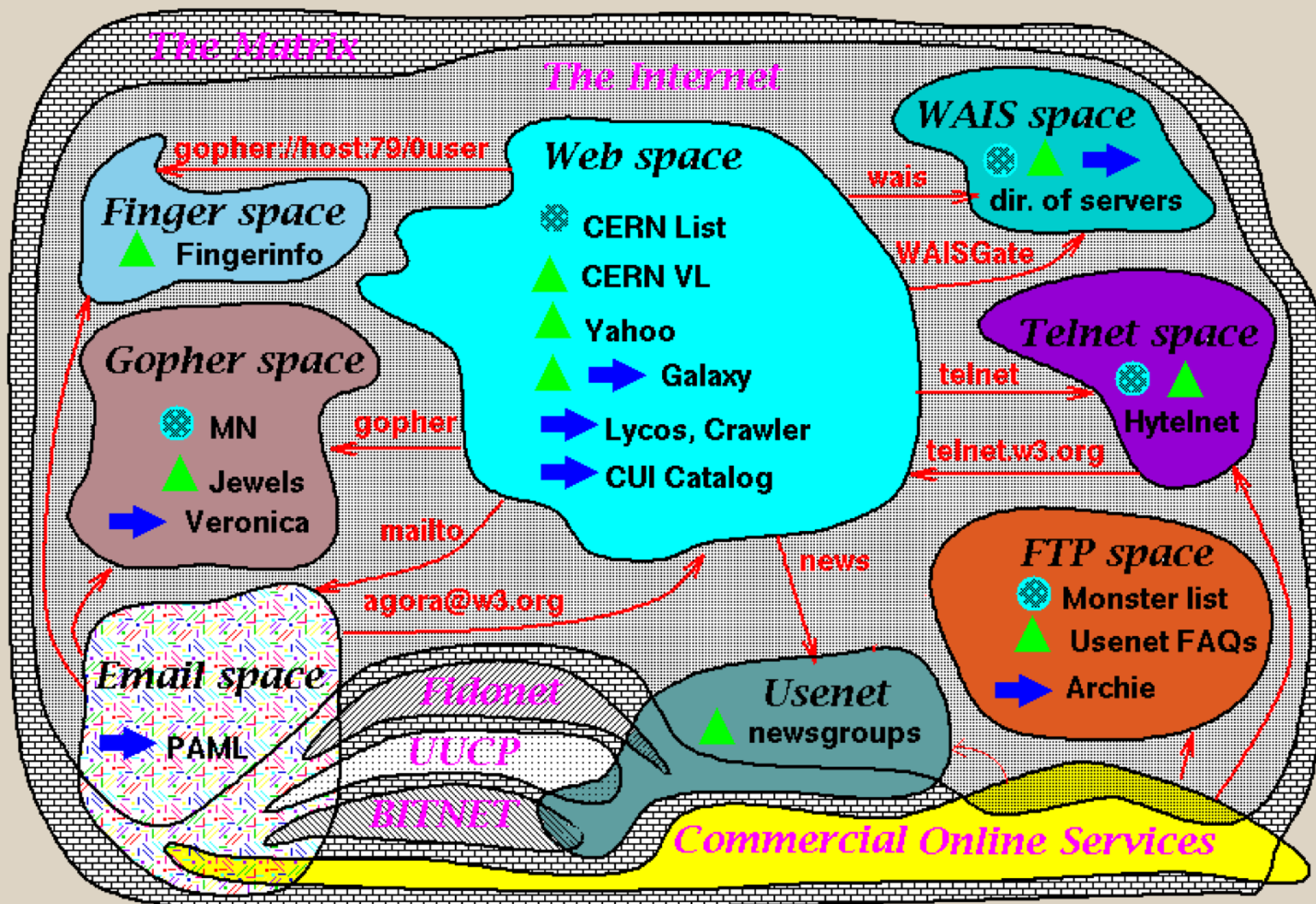
Subject Tree

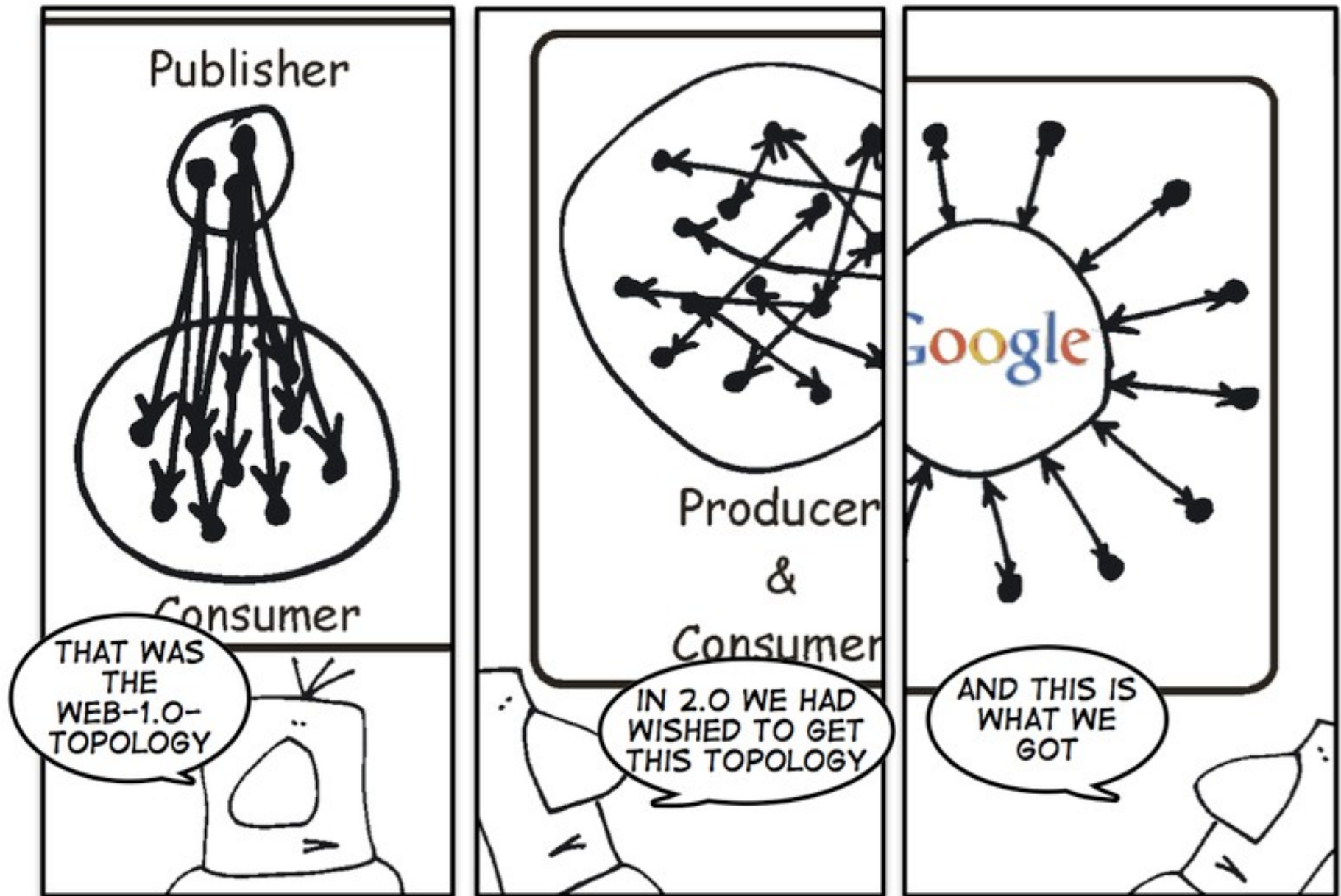


Gateway or Link



Root List





LOOK BACK ON WEB 2.0

GEEK AND POKE

E' Favorito:
Chi ha accesso
Chi può progettare
l'architettura

E' Sfavorito:
Chi non ha accesso
Chi può usare
le architetture
disegnate da altri



sola lettura



lettura e scrittura



Che fare?

- I sistemi non sono mai solo *tecnologici*, sono sempre *socio-tecnici*: rifiutare le semplificazioni
- Porsi domande: che impatto, su chi?
- Favorire tecnologie aperte (dati, software)
- Usare e produrre programmi con licenze Free/Open source
- Coinvolgere gli utenti: c'è sempre più di un modo

/Privacy/

Insieme di **norme sociali** che regolano:

/privacy/ {

1. quali **informazioni** è appropriato rivelare in un dato **contesto**
2. la **circolazione** o distribuzione di queste tra diverse **parti**.

Variabili:

- La *natura del contesto* e dell'informazione in rapporto al contesto (Es. dal medico)
- Il *ruolo* degli agenti nel contesto e verso il soggetto
- Le *condizioni* alle quali l'informazione viene rilasciata in primo luogo e in caso di ulteriore diffusione

(Nissenbaum 2004)

Contesto sociale senza ICT

Cose che io so di me

Cose che io so
che gli altri sanno di me



Contesto sociale senza ICT

Numero di **fatti** significativi
Che mi riguardano
Che **io** conosco
Che posso nascondere

Numero di **fatti** significativi
Che mi riguardano
Che **altri** conoscono
Che possono nascondermi



Con Internet per le **masse**

Quantità di dati

Che mi riguardano

Che **io** conosco

Che posso nascondere

Quantità di dati

Che mi riguardano

Che **altri** conoscono

Che possono nascondermi



Big Data

Surveillance

Social Networks

Cloud Computing

Data Protection

Quantità di dati

Che mi riguardano

Che **io** conosco

Che posso nascondere

Quantità di dati

Che mi riguardano

Che **altri** conoscono

Che possono nascondermi

Data Protection Law

Privacy By Design

Safe Harbor

Big Data

Surveillance

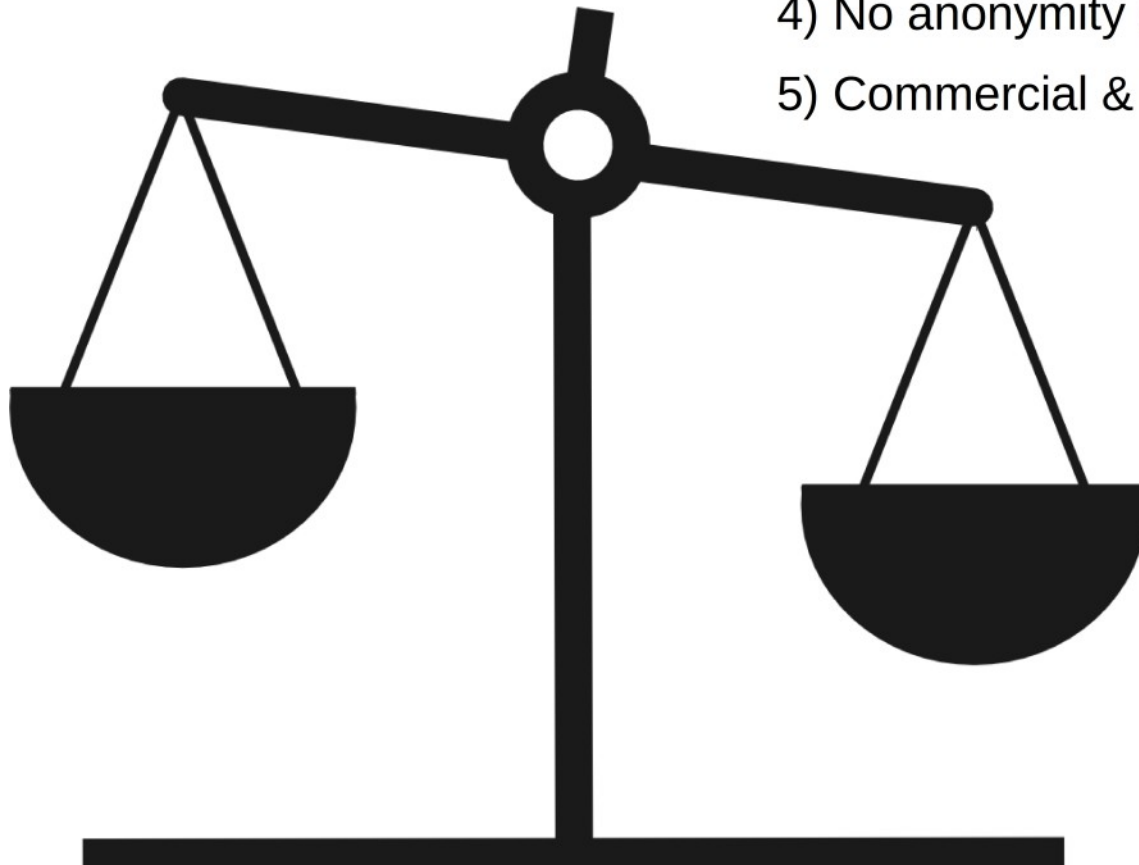
Social Networks

Cloud Computing



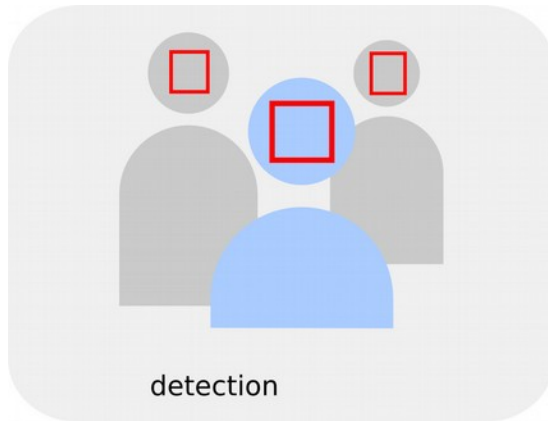
Minacce alla privacy

- 1) Biometrics
- 2) Interoperable Biometrics
- 3) Big Data InSecurity
- 4) No anonymity (#nymwars)
- 5) Commercial & Gov Surveillance

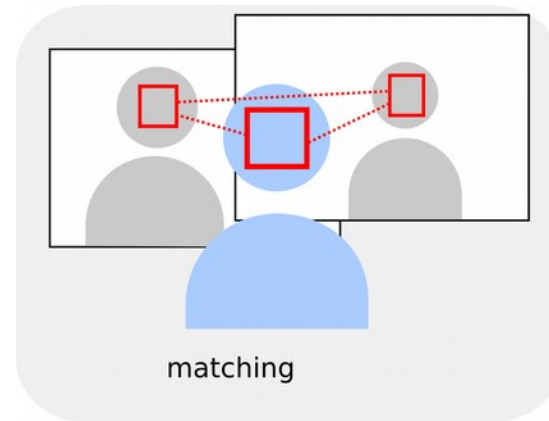


Esempio: biometrics & face recognition

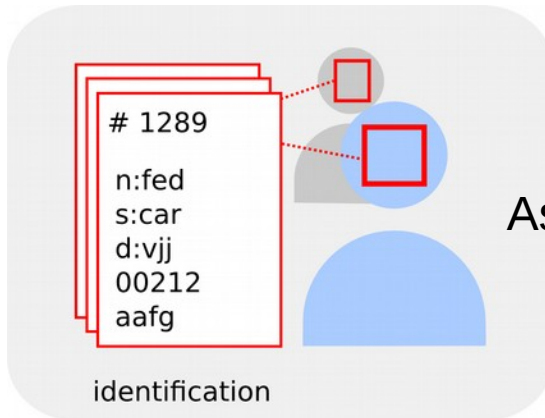
Face recognition



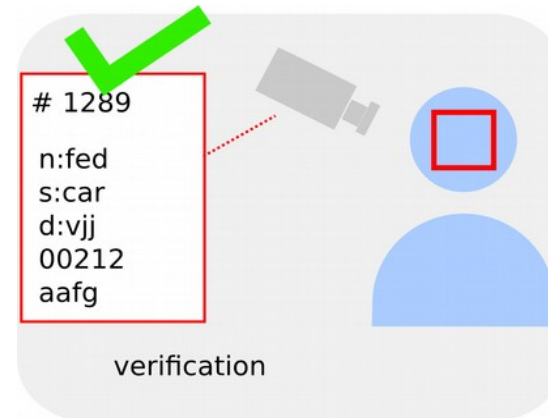
Detection
Ecco una faccia



Matching
Ecco la stessa faccia
(re-identification)



Identification
Associo i dati di Tizio
con la sua faccia

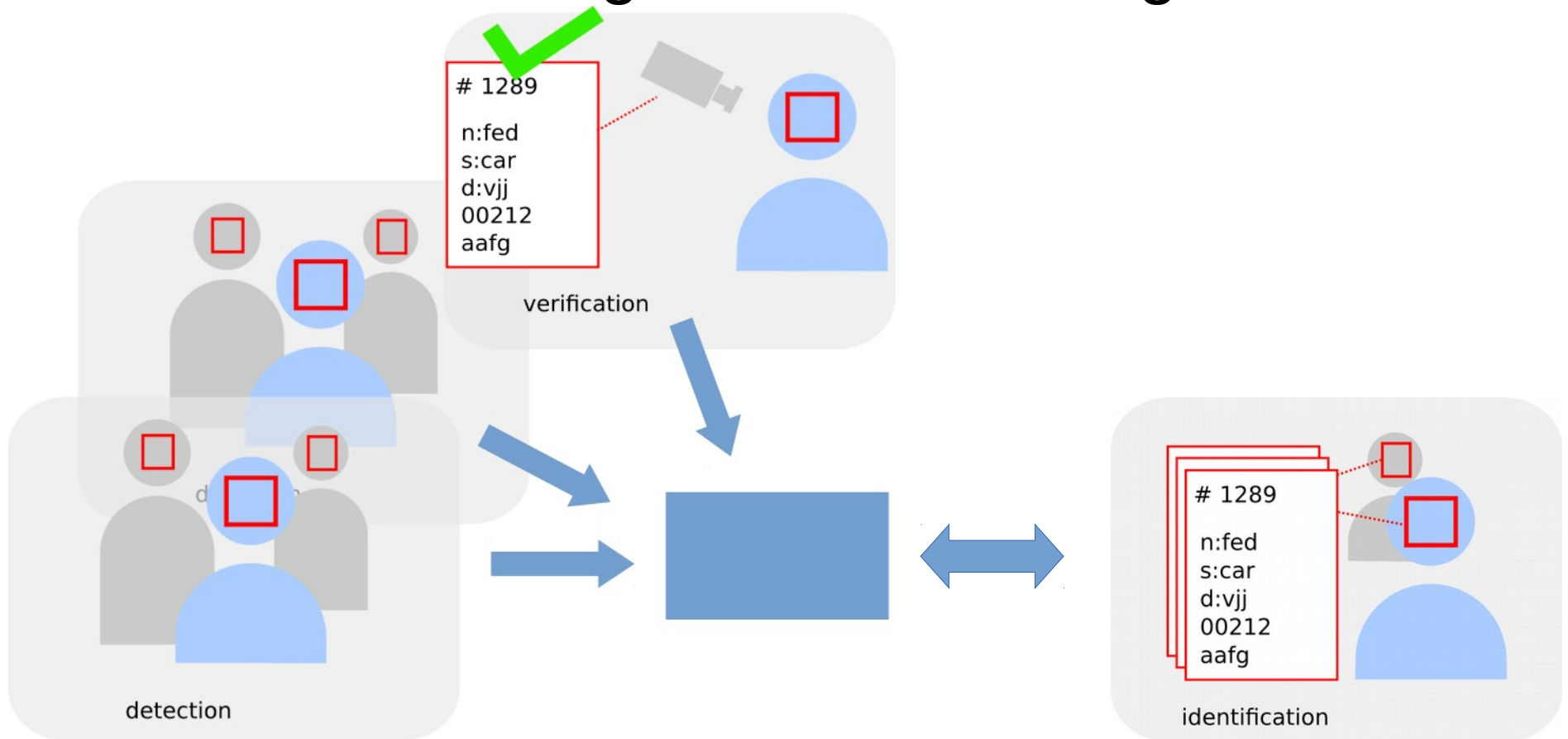


Verification
Ecco Tizio!
Ecco i suoi dati!

Impieghi della FR

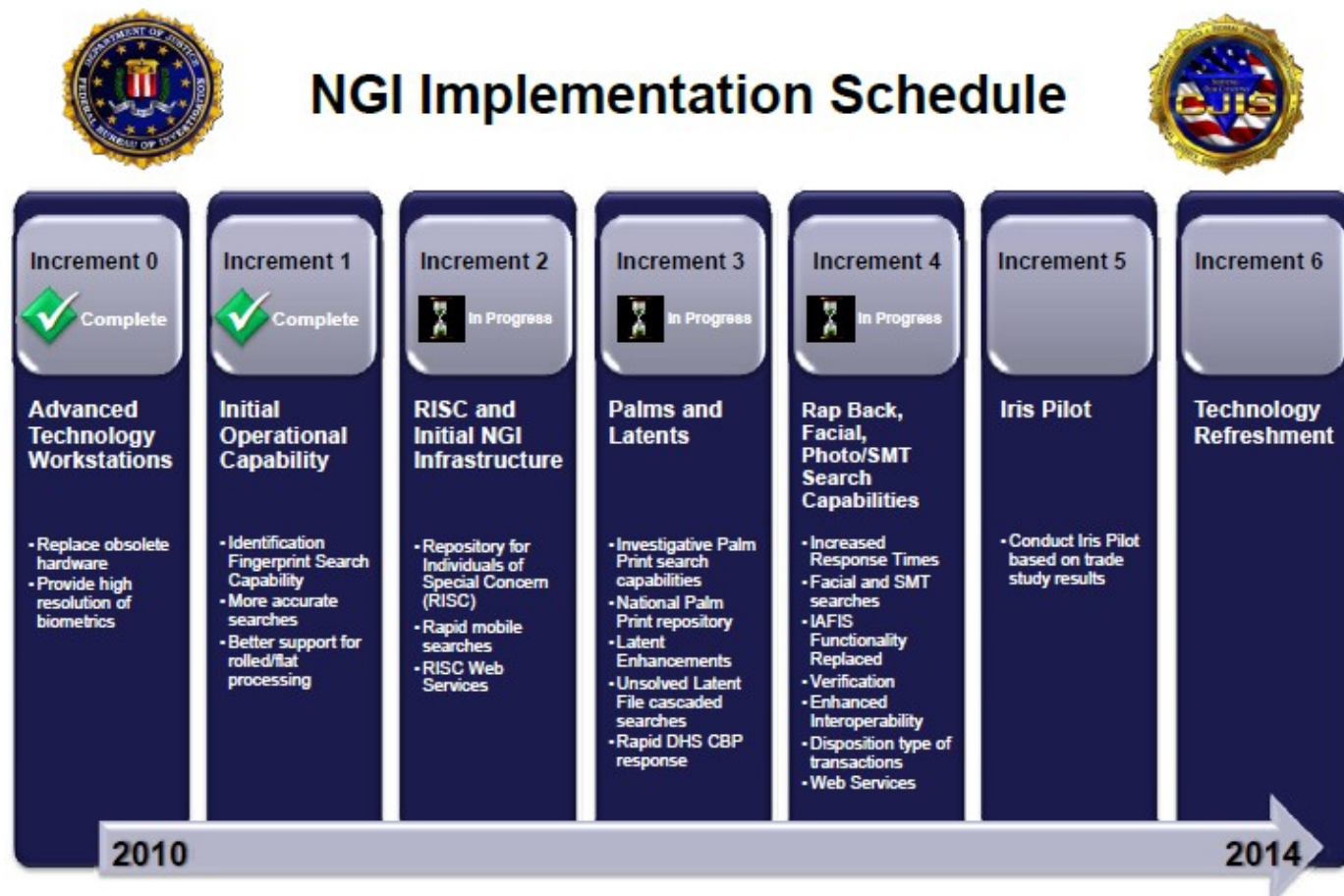
- *Law enforcement*
- *Passenger & Border processing*
- *Disaster victim identification*
- *Voting systems*
- *Time attendance*
- *Computer systems biometric authentication*
- *Vending machines*
- ...

Face recognition search engine

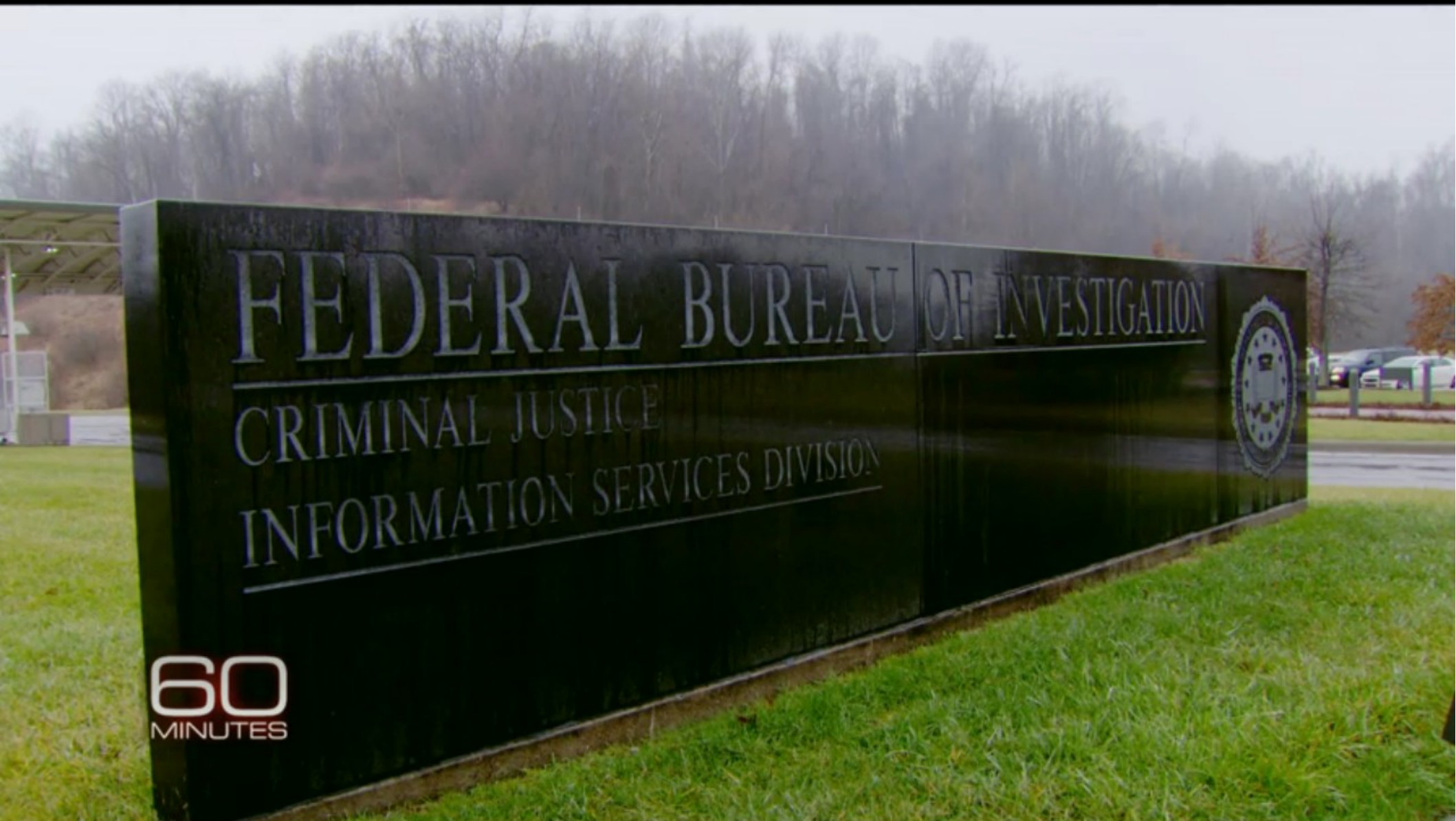


Closed FR search engine

NGI searchable database includes «facial imaging, scars, marks, and tattoos» and has «room to accommodate future biometric technologies (i.e., voice, gait, etc.) as they become available and prove reliable»



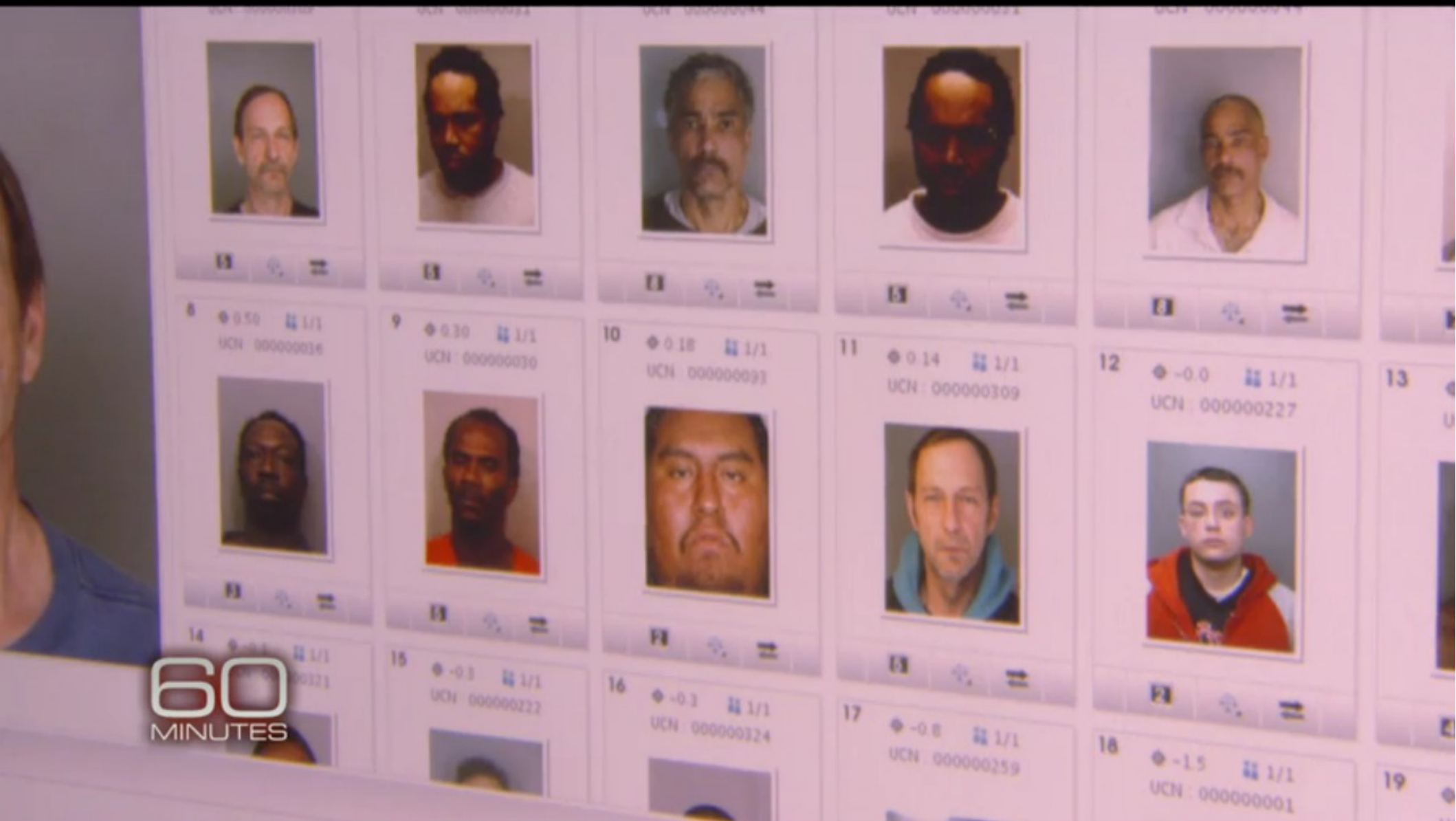
UNCLASSIFIED
For official use only



FBI Criminal Justice Information Services Division Clarksburg, West Virginia

A mugshot of a middle-aged man with dark hair, a mustache, and a vertical scar on his forehead. He is wearing a blue shirt and looking directly at the camera against a plain grey background.

000000309_05_01.tif
Resolution: 480x600
Size: 25.14 KB
Date made:



FBI's NGI Screenshots

FR in SNs

We've Suggested Tags for Your Photos

We've automatically grouped together similar pictures and suggested the names of friends who might appear in them. This lets you quickly label your photos and notify friends who are in this album.

Tag Your Friends

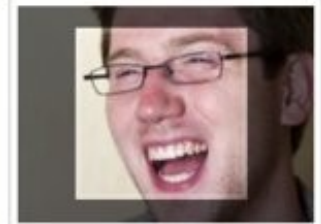
This will quickly label your photos and notify the friends you tag. [Learn more](#)



Who is this?



Who is this?



Who is this?



Who is this?



Who is this?



Who is this?



Francis Luu



[Skip Tagging Friends](#)

[Save Tags](#)

Publicly accessible
FR Search Engines



您上传的图片



第2页

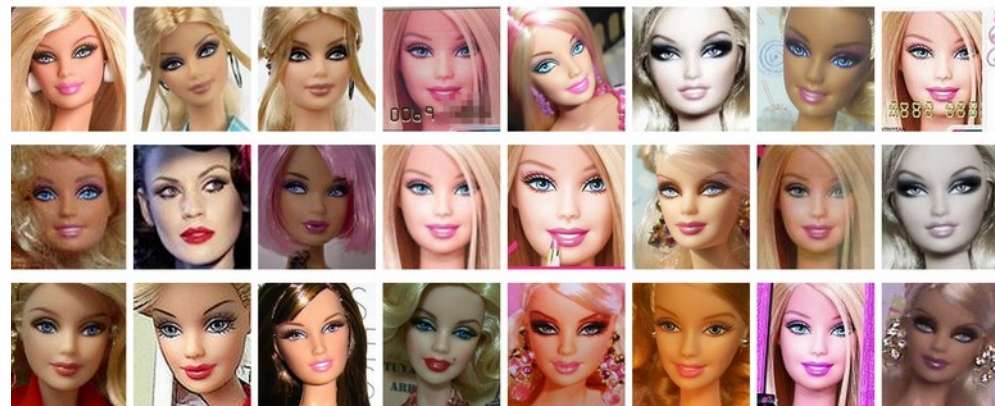


第3页



第4页

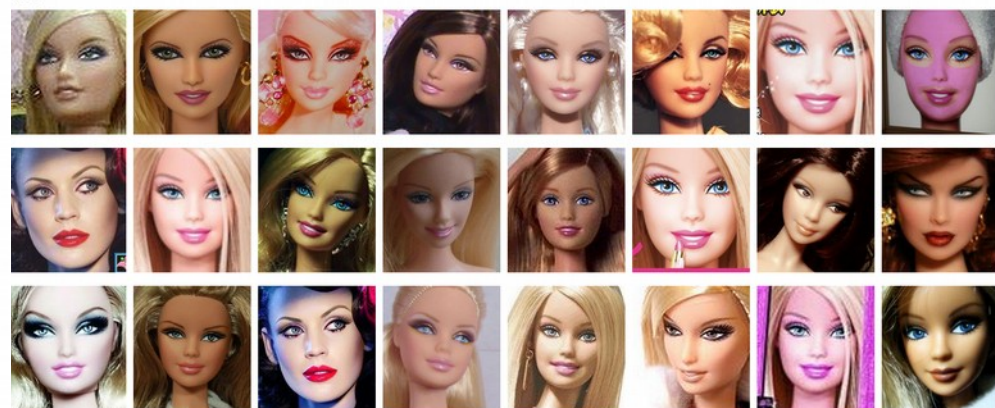
第5页



第6页



第7页





face(s) in the photo:



face attributes :



look-alikes:



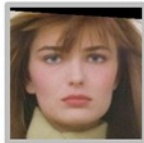
17%

Evan Rachel Wood



10%

Zara Sheikh



9%

Paulina Porizkova



9%

Daisy Lowe



8%

Marie Osmond



7%

Alina Kabaeva



7%

Tasha Tilberg



6%

Valérie Bègue



5%

Rachel Weisz



5%

Lily Donaldson



face(s) in the photo:



face attributes :



look-alikes:



20%

Bear Grylls



15%

Gil Birmingham



4%

Eddie Jordan



3%

Madeleine Albright



2%

Stuart Townsend



2%

Nouriel Roubini



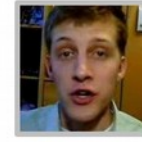
2%

Danny Cipriani



2%

Yul Brynner



2%

James Kotecki



2%

Gary Cooper



SCRAMBLE FACE

[HOME](#)

[♦ OUR SCANS](#)

[♦ WHY SCRAMBLE FACE?](#)

[♦ PRESS](#)

[♦ REGISTER](#)

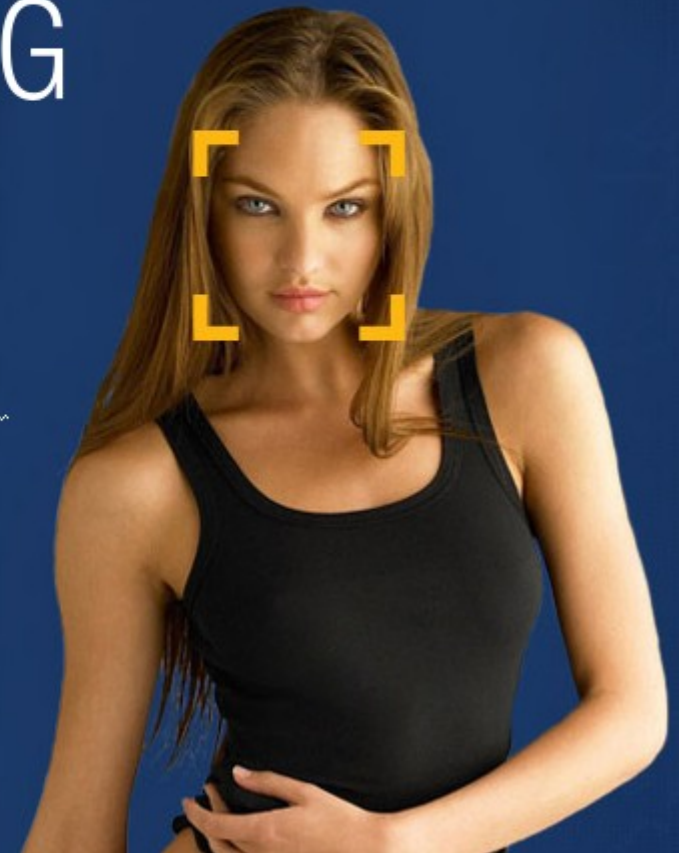
[LOGIN](#)

FIND PICTURES ONLINE USING FACE RECOGNITION TECHNOLOGY

Your child – Protect your child. Remove unwanted pictures of them online.

Yourself – Locate and delete pictures that you do not want online. Keep your privacy in check.

Significant other – Are you curious where pictures of your significant other are online?

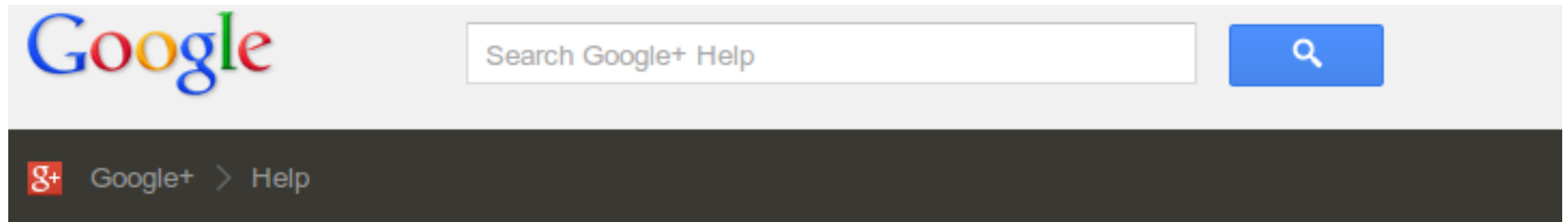


Each scan report costs \$75 US

Esempio: #nymwars

Guerra all'anonimato e allo pseudonimato
nei Social Networks

#nymwars



Google+ Profile Names Policy

Names and Google+

Google+ makes connecting with people on the web more like connecting with people in the real world. It's recommended that you go by your first and last name because it will help you connect with people you know and help them find you.

This policy applies only to Google+ profiles. Google+ profiles are for individuals. If you want to use Google+ to represent someone or something other than yourself – like your business, your band, your family, or your pet – you should create a Google+ page instead.

[Get Started on Facebook](#) >**[Manage Your Account](#)** >[Privacy](#) >[Security](#) >[Timeline](#) >[News Feed](#) >[Sharing](#) >[Messaging](#) >[Connecting](#) >[Facebook Mobile](#) >[Popular Features](#) >[Pages](#) >[Ads & Sponsored Stories](#) >[Apps, Games & Credits](#) >[Report Something](#) >[Community Forum](#)

Facebook's Name Policy

▼ What names are allowed on Facebook?

Personal Accounts

Facebook is a community where people use their real identities. We require everyone to provide their **real names**, so you always know who you're connecting with. This helps keep our community safe.

Names can't include:

- Symbols, numbers, unusual capitalization, repeating characters or punctuation
- Characters from multiple languages
- Titles of any kind (ex: professional, religious, etc)
- Words, phrases, or nicknames in place of a middle name
- Offensive or suggestive content of any kind

Other things to keep in mind:

- The name you use should be your real name as it would be listed on your credit card, student ID, etc.
- Nicknames can be used as a first or middle name if they're a variation of your real first or last name (like Bob instead of Robert)
- You can also list another name on your account (ex: maiden name, nickname, or professional name), by adding an [alternate name](#) to your timeline
- Only one person's name should be listed on the account – timelines are for individual use only
- Pretending to be anything or anyone is not allowed



My name is **danah boyd** and I'm a Senior Researcher at Microsoft Research, a Research Assistant Professor in Media, Culture, and Communication at New York University, a Visting Researcher at Harvard Law School, and an Adjunct Associate Professor at the University of New South Wales. I received my PhD from the **School of Information at UC-Berkeley**. I spend 1/3 of my time in Cambridge, MA, 1/3 in New York, NY, and 1/3 in the air. Buzzwords in my world include: public/private, identity, context, youth culture, social network sites, social media. I use this blog to express random thoughts about whatever I'm thinking.

Hanging Out,
Messing Around,
and Geeking Out

« Designing for Social Norms (or How Not to Create Angry Mobs)

The Unintended Consequences of Obsessing Over Consequences
(or why to support youth risk-taking) »

“Real Names” Policies Are an Abuse of Power

Everyone's abuzz with the “nymwars,” mostly in response to Google Plus' decision to enforce its “real names” policy. At first, Google Plus went on a deleting spree, killing off accounts that violated its policy. When the community reacted with outrage, Google Plus leaders tried to calm the anger by **detailing their “new and improved” mechanism to enforce “real names”** (without killing off accounts). This only sparked increased discussion about the value of pseudonymity. Dozens of blog posts have popped up with people expressing their support for pseudonymity and explaining their reasons. One of the posts, by **Kirrily “Skud” Robert** included a **list of explanations that came from people she polled**, including:

- “I am a high school teacher, privacy is of the utmost importance.”
- “I have used this name/account in a work context, my entire family know this name and my friends know this name. It enables me to participate online without being subject to harassment that at one point in time lead to my employer having to change their number so that calls could get through.”
- “I do not feel safe using my real name online as I have had people track me down from my online presence and had coworkers invade my private life.”
- “I’ve been stalked. I’m a rape survivor. I am a government employee that is prohibited from using my IRL.”
- “As a former victim of stalking that impacted my family I’ve used [my nickname] online for about 7 years.”
- “[this name] is a pseudonym I use to protect myself. My web site can be rather controversial and it has been used against me once.”
- “I started using [this name] to have at least a little layer of anonymity between me and people who act inappropriately/criminally. I think the “real names” policy hurts women in particular.
- “I enjoy being part of a global and open conversation, but I don’t wish for my opinions to offend conservative and religious people I know or am related to. Also I don’t want my husband’s Govt career impacted by his opinionated wife, or for his staff to feel in any way uncomfortable because of my views.”
- “I have privacy concerns for being stalked in the past. I’m not going to change my name for a google+ page. The price I might pay isn’t worth it.”
- “We get death threats at the blog, so while I’m not all that concerned with, you know, sane people finding me. I just don’t overly share information and use a pen name.”
- “This identity was used to protect my real identity as I am gay and my family live in a small village where if it were openly known that their son was gay they would have problems.”
- “I go by pseudonym for safety reasons. Being female, I am wary of internet harassment.”

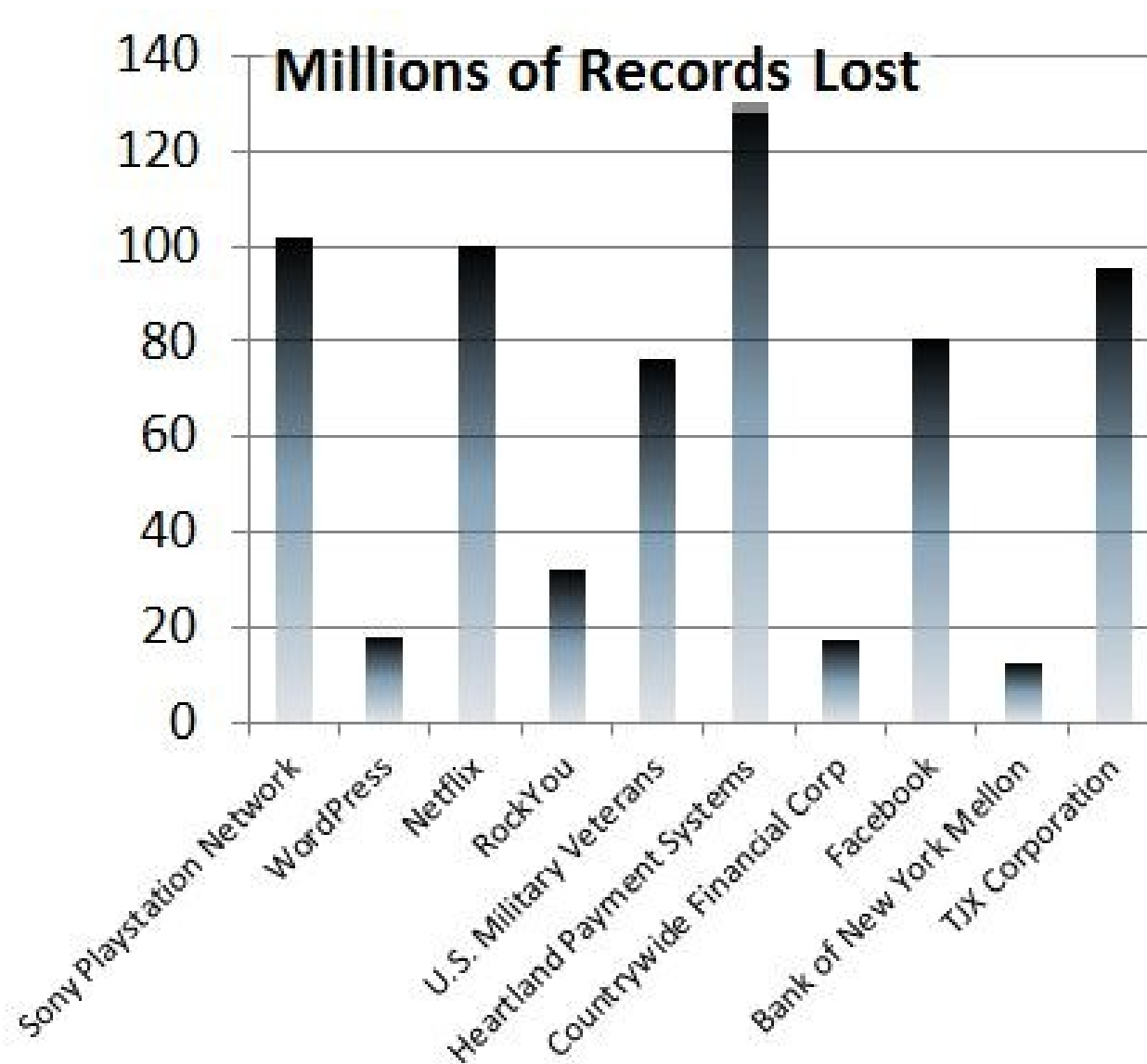
You’ll notice a theme here...

Another site has popped up called **“My Name Is Me”** where people vocalize their support for pseudonyms. What’s most striking is the list of people who are affected by “real names” policies, including abuse survivors, activists, LGBT people, women, and young people.

Esempio: Big Data Insecurity
(*data breach*)



Sony's Executive Deputy President Hirai and his executives Kambe and Hasejima apologise for a massive security breach of its PlayStation Network in Tokyo back **May 2011**. (Credit: Reuters)



<http://web.securityinnovation.com/blog/bid/63193/The-High-Cost-of-an-Application-Security-Data-Breach>

Data: <http://www.privacyrights.org/data-breach>

L'ambiente centralizzato

Favorisce
chi detiene/raccoglie i dati

Big Data repository

Surveillance Nets

Social Networks

Cloud Computing

Governi

Sfavorisce
chi produce i dati

Utenti



Che fare?

- consapevolezza sui dati che si conferiscono
- sistemi decentrati/policentrici/federati
- usare la crittografia
- anonimizzare i dati
- *privacy by design*

/controllo/
e sorveglianza

Esempio: browser *tracking*

You have gone full screen. Exit full screen (F11)

TUTTE LE SEZIONI

TORINO CUNEO AOSTA ASTI NOVARA VERBANO CUSIO OSSOLA VERCELLI BIELLA ALESSANDRIA SAVONA IMPERIA e SANREMO

MONDO CRONACHE POLITICA ECONOMIA SPORT NORD OVEST SALUTE TEMPO LIBERO

Maltempo, frana nel Biellese: un morto Liguria, ancora paura: allerta fino alle 15

La situazione - Alessandria / Asti / Verbania / Imperia



GIUSEPPE BUFFA E GIUSEPPE SALVAGGIULO (INVIATO A CHIAVARI)

**La vittima è un anziano. Un altro è ferito
In Piemonte laghi esondati e Po in piena.
Disagi anche alla circolazione ferroviaria.
A Chiavari si contano danni dell'alluvione**

+ Burlando: "Subito gli aiuti". Il Tesoro: prima li chiedi

VIDEO WEB CAR Dentro la città sommersa dal fango

METEO Le previsioni / DISSESTO IDROGEOLOGICO

Ghostery found 8 trackers
www.lastampa.it

- Facebook Connect
Widgets, Social
- Google Analytics
Analytics, Analytics
- Google+ Platform
Widgets, Social
- NetRatings SiteCensus
Analytics
- RCS MediaGroup
Advertising
- Twitter Button
Widgets, Social

Pause Blocking Whitelist Site ?

Referendum contro l'euro,
show di Grillo a Bruxelles
"Noi in guerra con la Bce"
E va all'attacco di Juncker



Usa-Cina, siglato l'accordo sul clima "Taglio delle emissioni entro il 2030"

Analisi - Il vertice Apec ridisegna gli equilibri mondiali



PAOLO MASTROLILLI, INVIATO A NEW YORK

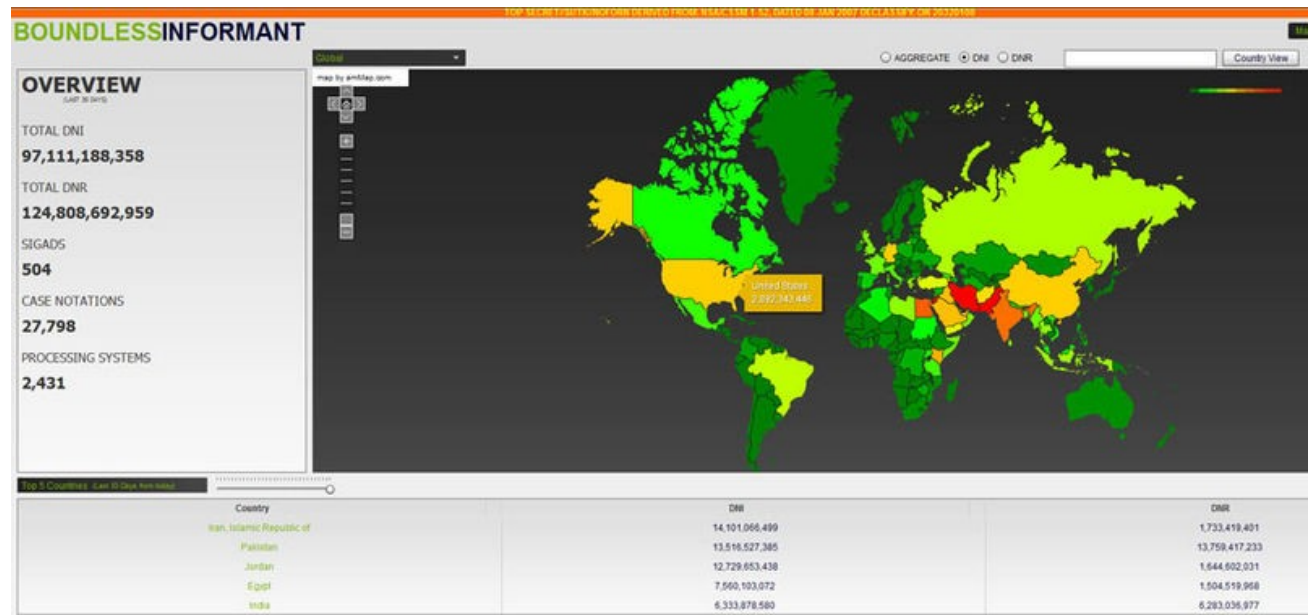
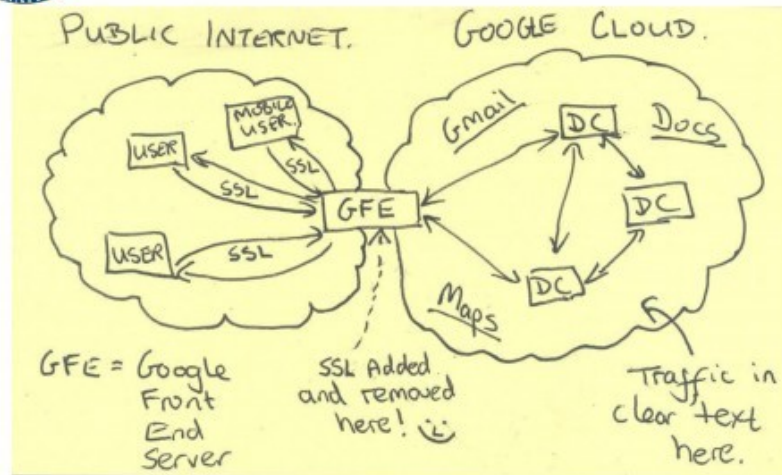
**Come anticipato da La Stampa arriva
l'intesa per arginare l'inquinamento.
Gli Stati Uniti promettono di ridurre
la produzione di gas serra del 26-28%.
Pechino si impegna invece a produrre**

Facebook Connect
Google Analytics
Google+ Platform
NetRatings SiteCensus
RCS MediaGroup
Twitter Button
Webtrekk
Xaxis

Esempio: NSA



Current Efforts - Google



1. Raccolta indiscriminata

- Intercettazione su snodi internazionali in fibra ottica

STORMBREW OAKSTAR BLARNEY FAIRVIEW TEMPORA

- Infiltrazione e/o collaborazione con industria

Microsoft, Yahoo, Google, Facebook, PalTalk, AOL, Skype, YouTube, Apple

PRISM, MUSCULAR Xkeyscore, SCISSORS, BOUNDLESS INFORMANT

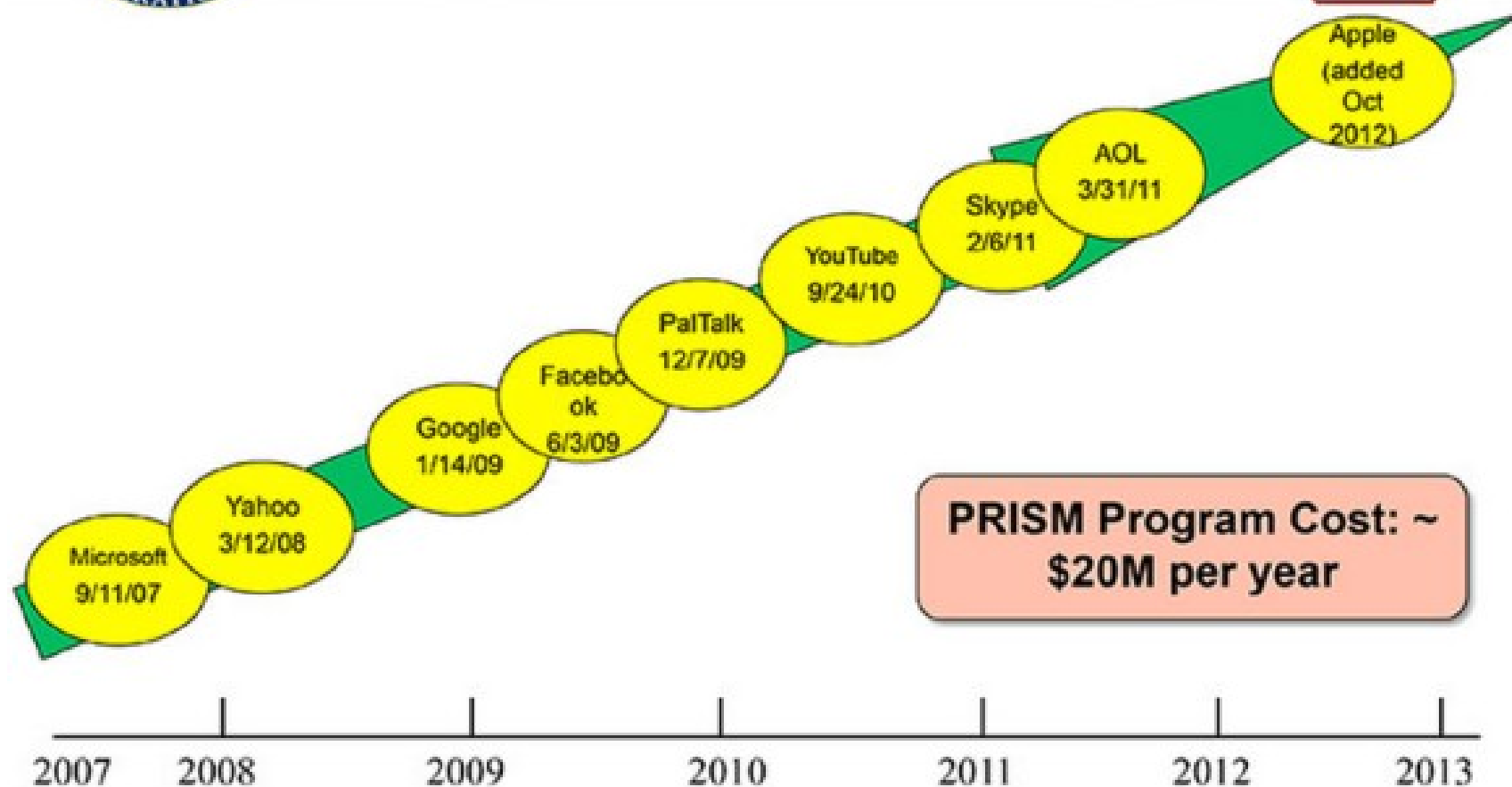
- Raccolta metadati delle conversazioni telefoniche

Verizon, AT&T e Sprint Nextel

MAINWAY, STELLARWIND



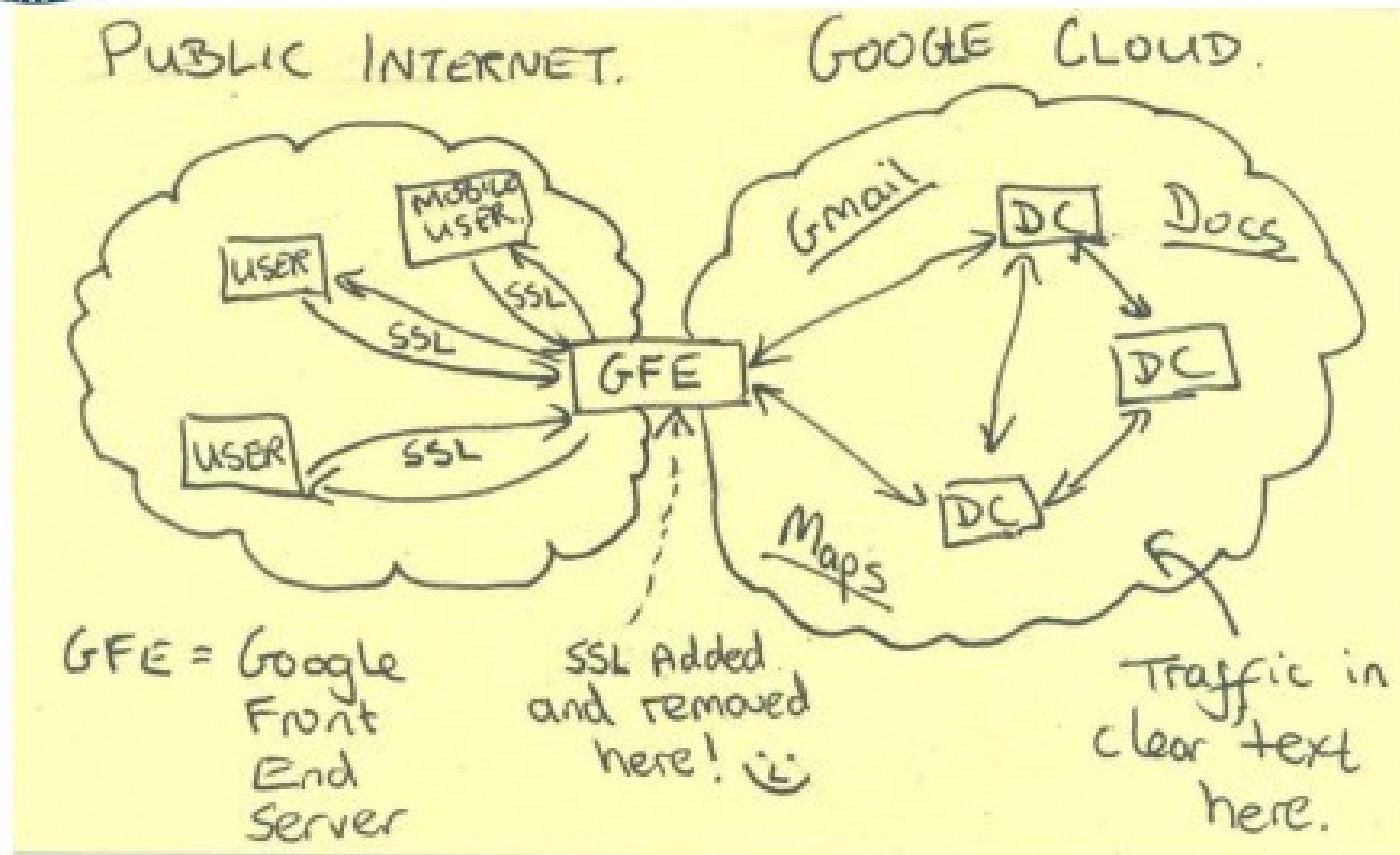
(TS//SI//NF) Dates When PRISM Collection
Began For Each Provider



**PRISM Program Cost: ~
\$20M per year**



Current Efforts - Google



2. Attività mirate

- Intercettazione:
 - Ambasciate (38), ministeri (Fr), media (Al Jazeera),
 - leader politici, capi di Stato (Br, Mx, De),
 - organizzazioni internazionali (ONU, IAEA)

DROPMIRE

- Intrusione informatica con virus e malware

GENIE, T.A.O.

- Attacco a prodotti anonimizzanti: Tor

(EgotisticalGiraffe).

3. Attività su infrastrutture

- Indebolimento dei protocolli crittografici standard
 - "Differential Workfactor Cryptography" (Lotus Notes)
 - Dual_EC_DRBG standard: (RSA)
BULLRUN, EDGEHILL, Sigint Enabling
- Sovvertimento della sicurezza
 - prodotti proprietari: Crypto AG, Windows

**(U) COMPUTER NETWORK OPERATIONS
(U) SIGINT ENABLING**

This Exhibit is SECRET//NOFORN									
	FY 2011 ¹ Actual	FY 2012 Enacted			FY 2013 Request			FY 2012 — FY 2013	
		Base	OCO	Total	Base	OCO	Total	Change	% Change
Funding (\$M)	298.6	275.4	—	275.4	254.9	—	254.9	-20.4	-7
Civilian FTE	144	143	—	143	141	—	141	-2	-1
Civilian Positions	144	143	—	143	141	—	141	-2	-1
Military Positions	—	—	—	—	—	—	—	—	—

¹Includes enacted OCO funding.

Totals may not add due to rounding.

(U) Project Description

(TS//SI//NF) The SIGINT Enabling Project actively engages the US and foreign IT industries to covertly influence and/or overtly leverage their commercial products' designs. These design changes make the systems in question exploitable through SIGINT collection (e.g., Endpoint, MidPoint, etc.) with foreknowledge of the modification. To the consumer and other adversaries, however, the systems' security remains intact. In this way, the SIGINT Enabling approach uses commercial technology and insight to manage the increasing cost and technical challenges of discovering and successfully exploiting systems of interest within the ever-more integrated and security-focused global communications environment.

(TS//SI//REL TO USA, FVEY) This Project supports the Comprehensive National Cybersecurity Initiative (CNCI) by investing in corporate partnerships and providing new access to intelligence sources, reducing collection and exploitation costs of existing sources', and enabling expanded network operation and intelligence exploitation to support network defense and cyber situational awareness. This Project contains the SIGINT Enabling Sub-Project.

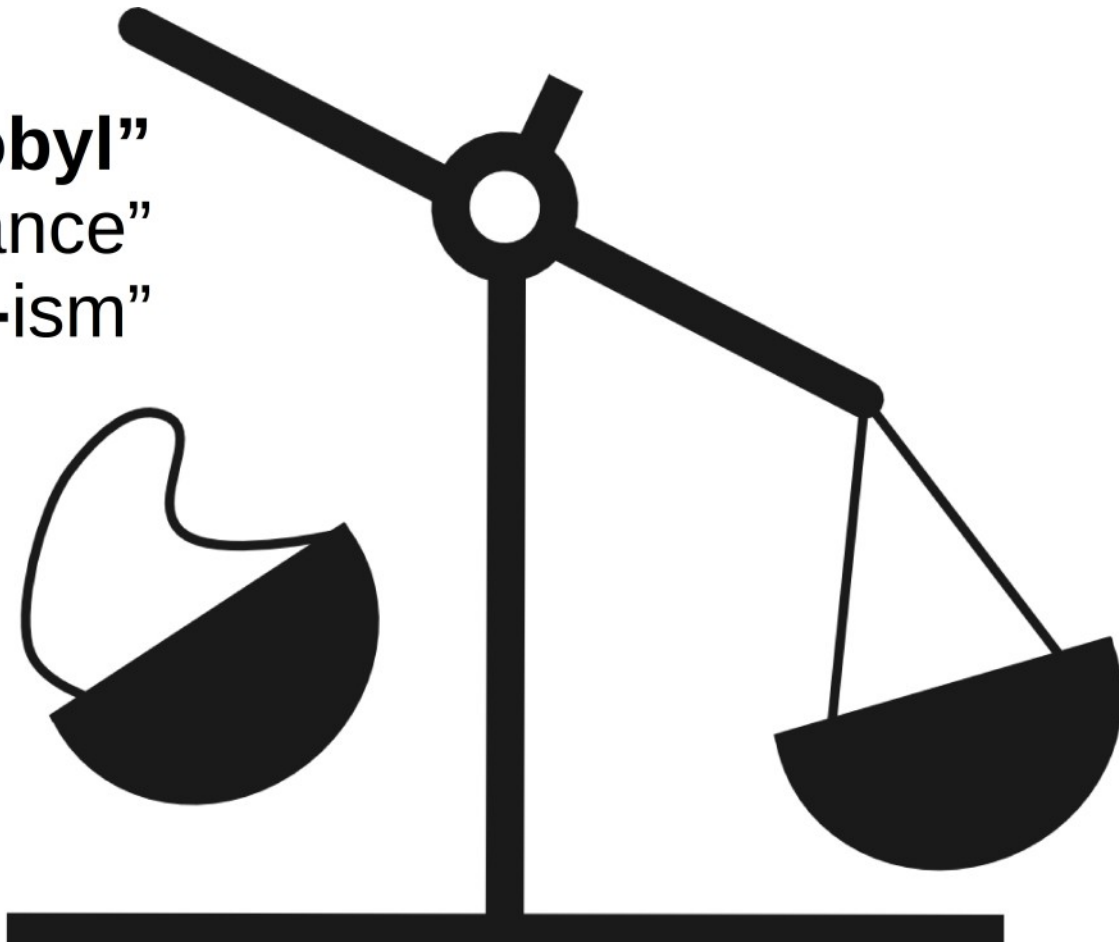
(U) Base resources in this project are used to:

- (TS//SI//REL TO USA, FVEY) Insert vulnerabilities into commercial encryption systems, IT systems, networks, and endpoint communications devices used by targets.
- (TS//SI//REL TO USA, FVEY) Collect target network data and metadata via cooperative network carriers and/or increased control over core networks.
- (TS//SI//REL TO USA, FVEY) Leverage commercial capabilities to remotely deliver or receive information to and from target endpoints.
- (TS//SI//REL TO USA, FVEY) Exploit foreign trusted computing platforms and technologies.
- (TS//SI//REL TO USA, FVEY) Influence policies, standards and specification for commercial public key technologies.
- (TS//SI//REL TO USA, FVEY) Make specific and aggressive investments to facilitate the development of a robust exploitation capability against Next-Generation Wireless (NGW) communications.
- (U//FOUO) Maintain understanding of commercial business and technology trends.
- (U//FOUO) Procure products for internal evaluation.
- (U//FOUO) Partner with industry and/or government agencies in developing technologies of strategic interest to NSA/CSS.

“Data totalitarianism”

- 1) interoperable biometrics
- 2) ubiquitous surveillance
- 3) Insecure Big Data
- 4) #nymwars

“Privacy chernobyl”
“Uberveillance”
“Face-ism”



Che fare?

- Se le tecnologie pongono problemi *politici* devono entrare nelle agende *politiche*
- *Sviluppare in privacy by design*
- Cercare soluzioni a problemi *reali*
- Rifiutare tecnologie in cerca di problemi, semplificazioni e il *blueprint thinking*

Consultazione pubblica sulla bozza di Dichiarazione dei diritti in Internet

Internet ha contribuito in maniera decisiva a ridefinire lo spazio pubblico e privato, a strutturare i rapporti tra le persone e tra queste e le istituzioni. Ha cancellato confini e ha costruito modalità nuove di produzione e utilizzazione della conoscenza. Ha ampliato le possibilità di intervento diretto delle persone nella sfera pubblica. Ha modificato l'organizzazione del lavoro. Ha consentito lo sviluppo di una società più aperta e libera. Internet deve essere considerata come una risorsa globale e che risponde al criterio della universalità.

L'Unione europea è oggi la regione del mondo dove è più elevata la tutela costituzionale dei dati personali, esplicitamente riconosciuta dall'articolo 8 della Carta dei diritti fondamentali, che costituisce il riferimento necessario per una specificazione dei principi riguardanti il funzionamento di Internet, anche in una prospettiva globale.

Questa Dichiarazione dei diritti in Internet è fondata sul pieno riconoscimento di libertà, eguaglianza, dignità e diversità di ogni persona. La garanzia di questi diritti è condizione necessaria perché sia assicurato il funzionamento democratico delle istituzioni, e perché si eviti il prevalere di poteri pubblici e privati che possano portare ad una società della

sorveglianza, del controllo e della selezione sociale.

Internet si configura come uno spazio sempre più importante per l'autorganizzazione delle persone e dei gruppi e come uno strumento essenziale per promuovere la partecipazione individuale e collettiva ai processi democratici e l'eguaglianza sostanziale.

I principi riguardanti Internet tengono conto anche del suo configurarsi come uno spazio economico che rende possibili innovazione, corretta competizione e crescita in un contesto democratico.

Una Dichiarazione dei diritti di Internet è strumento indispensabile per dare fondamento costituzionale a principi e diritti nella dimensione sovranazionale.

In base a un metodo matematico ogni articolo ha pari visibilità, la visualizzazione quindi non è in ordine crescente.

[Leggi la Bozza in versione originale](#)

[Aggiungi una nuova proposta](#)

ACCESSO ALLE PERSONE DISABILI



da Giorgio Pernigotti

Ottimo il richiamo alla tutela delle persone disabili di cui all'articolo due della bozza

3- TUTELA DELLA LIBERTÀ DI NAVIGARE



da Salvatore Maugeri

Attraverso i banner mobili, le finestre pop up ecc, molti siti dirottato i navigatori specie se sprovvisti verso

INUTILITÀ DELLA LEGGE



da Rocco Santoro

Stabilire con un dispositivo legislativo il meccanismo di funzionamento della rete è frutto di una cultura politica

dichiarazione dei diritti in internet

1. riconoscimento e garanzia dei diritti
2. diritto di **accesso**
3. **neutralità** della rete
4. tutela dei **dati personali**
5. diritto **all'autodeterminazione** informativa
6. **inviolabilità** dei sistemi e domicili informatici
7. trattamenti automatizzati
8. diritto **all'identità**
9. **anonimato**
10. diritto **all'oblio**
11. diritti e garanzie delle persone sulle **piattaforme**
12. **sicurezza** in rete
13. diritto **all'educazione**
14. criteri per il **governo della rete**



Grazie!

alberto @cammozzo.com



@donttag
@mmzz

Information

- Definizione difficile e discussa
- *“Information is a difference which makes a difference”* (Bateson 1971)
- Gerarchia *Data* → *Information* → *Knowledge*
- *Differenza: percepita* → *misurata* → *impiegata utilemente*

Communication

