progress
FOUNDATION

49. Economic Conference
Zürich, October 17, 2019

«Social Scoring – Wo stehen wir? »

Presentation of Prof. Ronald Deibert
The Citizen Lab at the Munk School of Global Affairs,
University of Toronto

«Social Media, Digital Surveillance and the Threats to Liberal Democracy»

1

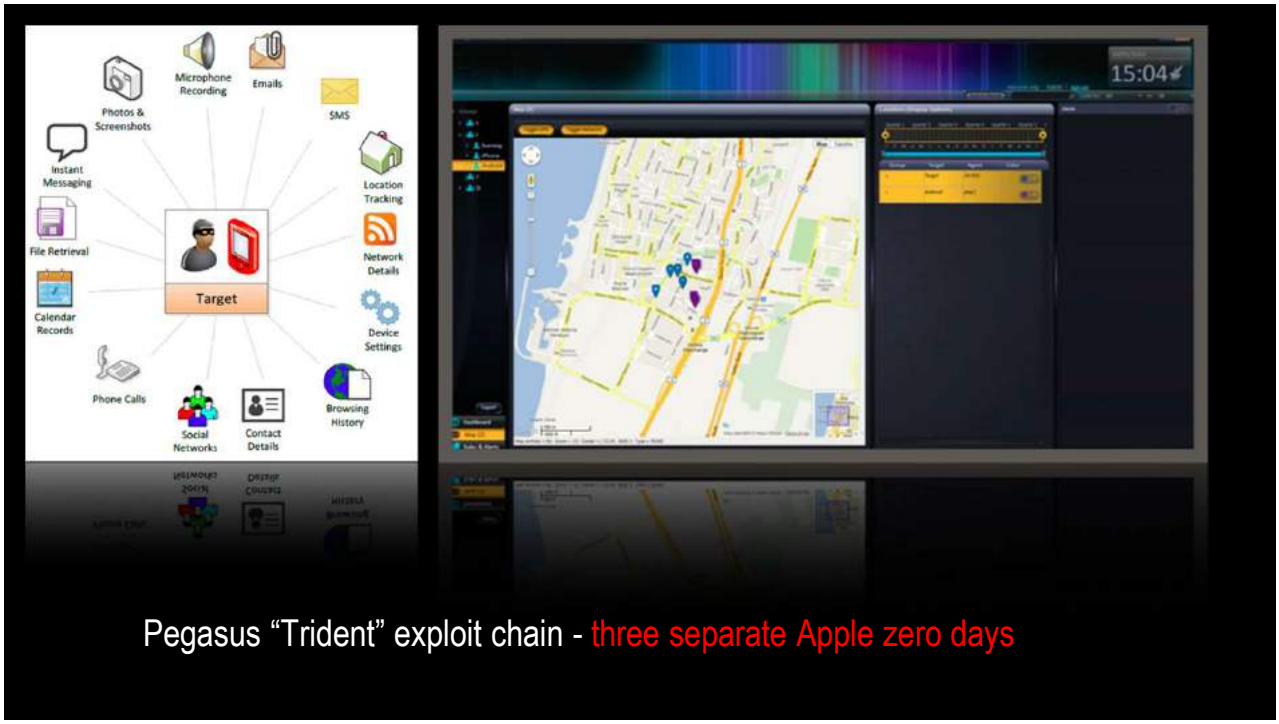
2

Ahmed Mansoor - Human Rights Defender - UAE
etisalat 10:16 AM
Back (6) +45 609910233
Text Message
Today 9:38 AM
أسرار جديدة عن تعذيب إماراتيين في سجون الدولة : https://sms.webadv.co/3589003s/
etisalat 2:41 PM
Messages (6) InfoSMS
Text Message
Today 1:44 PM
أسرار جديدة عن تعذيب إماراتيين في سجون الدولة : https://sms.webadv.co/9573305s/

3

NSO GROUP
"We only sell to governments"
"We follow Israeli and local laws"
"Strictly controlled to investigate criminals and terrorists"

4



5

Every iPhone and MacBook got a security update. Appx 1 billion devices.

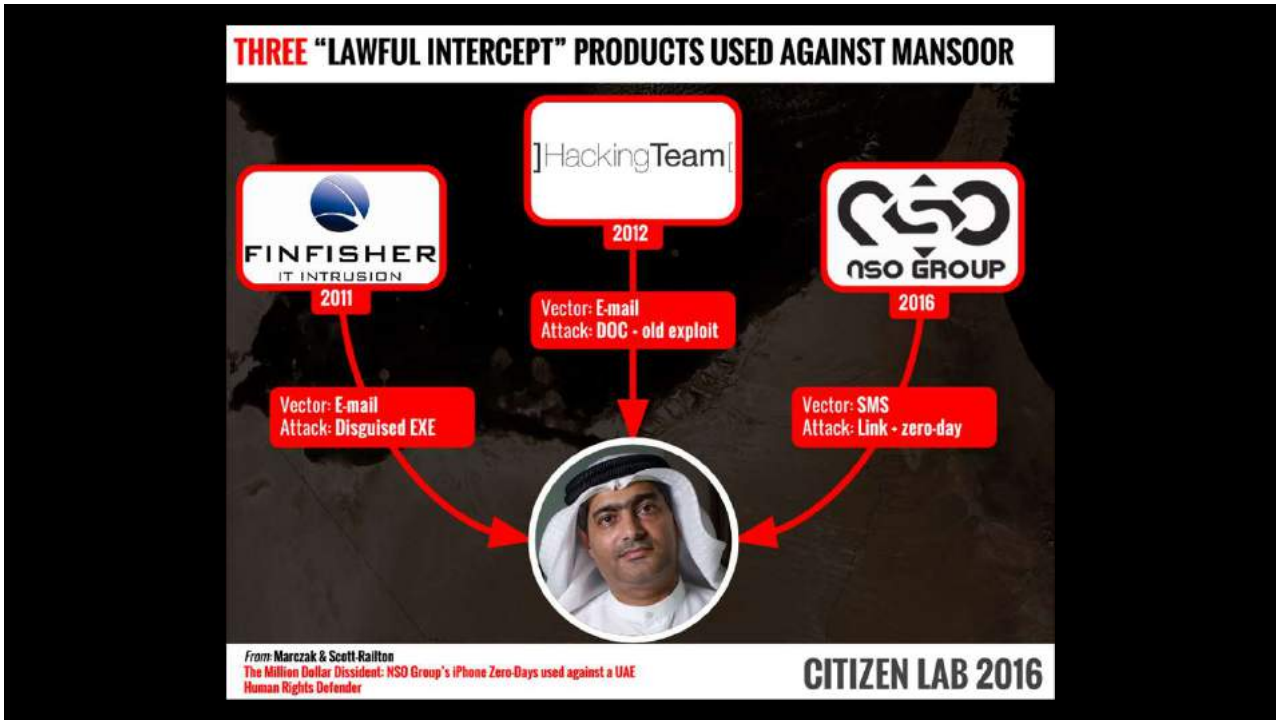
IPhone Users Urged to Update Software After Security Flaws Are Found

By NICOLE PERLROTH
Last Updated: August 25, 2016

SAN FRANCISCO — One of the world’s most evasive digital arms dealers is believed to have been taking advantage of three security vulnerabilities in popular Apple products in its efforts to spy on dissidents and journalists.

Investigators discovered that a company called the NSO Group, an Israeli outfit that sells software that invisibly tracks a

6


THREE "LAWFUL INTERCEPT" PRODUCTS USED AGAINST MANSOOR
FINFISHER
IT INTRUSION
2011
Vector: E-mail
Attack: Disguised EXE
]HackingTeam[
2012
Vector: E-mail
Attack: DOC - old exploit
NSO GROUP
2016
Vector: SMS
Attack: Link - zero-day
From: Marczak & Scott-Railton
The Million Dollar Dissident: NSO Group's iPhone Zero-Days used against a UAE Human Rights Defender
CITIZEN LAB 2016

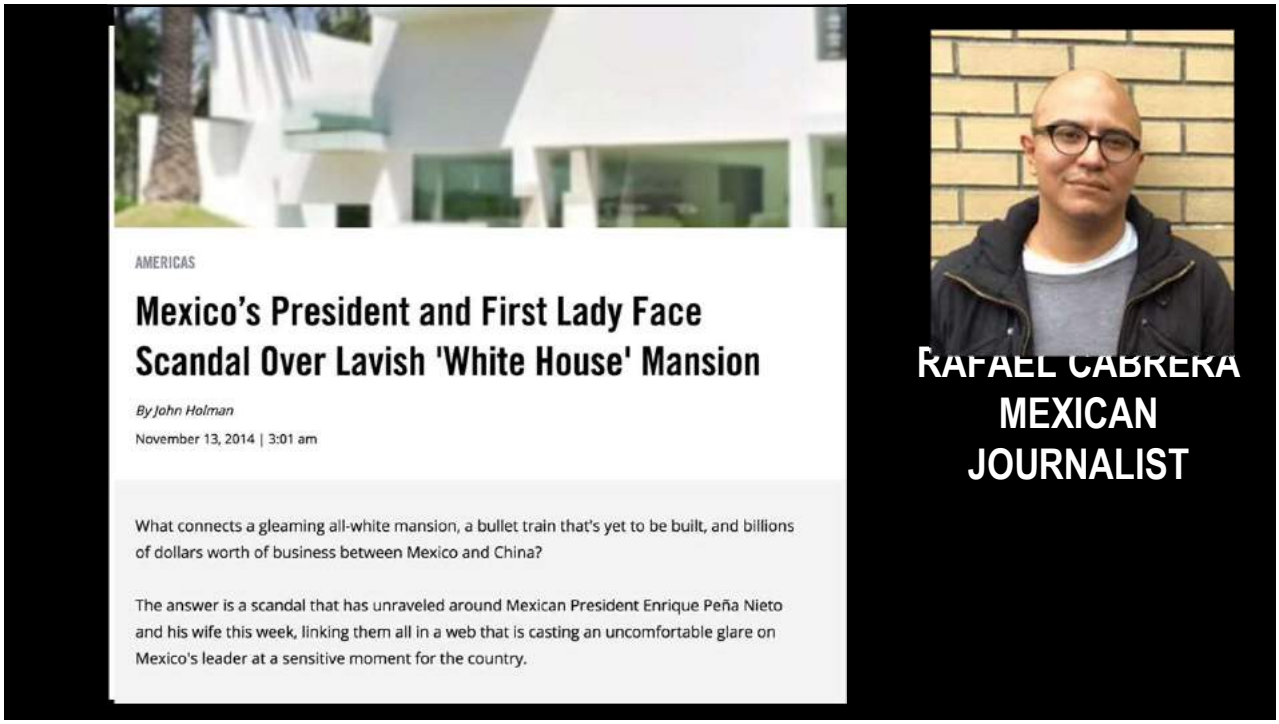
7

NEWS
MIDDLE EAST AND NORTH AFRICA
HUMAN RIGHTS DEFENDERS AND ACTIVISTS
UAE: Surprise overnight raid leads to arrest of prominent human rights defender

8

Rafael Cabrera
@raflescabrera
Follow
Me han llegado estos dos supuestos mensajes de UnoTV desde este número: (55) 6106 7277. No es gracioso
View translation
hoy 8:06
JNOTV.COM/ PRESIDENCIA DEMANDARA POR DIFAMACION A QUIENES PUBLICARON REPORTAJE DE LA CASA BLANCA. NOTA: ttp://bit.ly/1hMG15k
hoy 13:21
UNOTV.COM/ POR TEMA DE CASA BLANCA PRESIDENCIA PODRIA ENCARCELAR REPORTEROS MIENTRAS INVESTIGA VER NOMBRES: http://bit.ly/1LLY8oK
Mensaje de texto
En
RETWEETS
155
LIKES
38
8:35 AM - 30 Aug 2015
RAFAEL CABRERA
MEXICAN
JOURNALIST

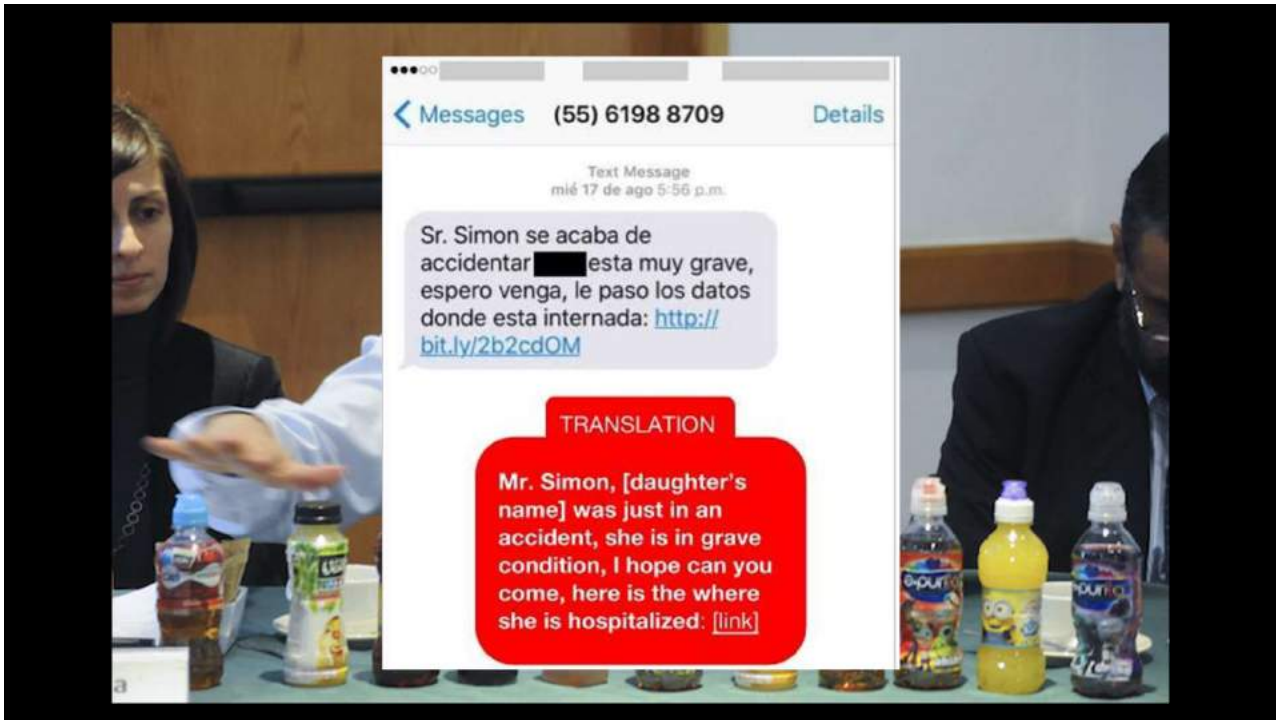
9


AMERICAS
Mexico's President and First Lady Face Scandal Over Lavish 'White House' Mansion
By John Holman
November 13, 2014 | 3:01 am
What connects a gleaming all-white mansion, a bullet train that's yet to be built, and billions of dollars worth of business between Mexico and China?
The answer is a scandal that has unraveled around Mexican President Enrique Peña Nieto and his wife this week, linking them all in a web that is casting an uncomfortable glare on Mexico's leader at a sensitive moment for the country.
RAFAEL CABRERA
MEXICAN
JOURNALIST

10

Luis Fernando García
Abogado de R3D
R3D
Red en Defensa
de los Derechos Digitales
Hey CITIZEN LAB, I think we have some NSO targets in MEXICO!

11


Messages
(55) 6198 8709
Details
Text Message
mié 17 de ago 5:56 p.m.
Sr. Simon se acaba de accidentar [redacted] esta muy grave, espero venga, le paso los datos donde esta internada: http://bit.ly/2b2cdOM
TRANSLATION
Mr. Simon, [daughter's name] was just in an accident, she is in grave condition, I hope can you come, here is the where she is hospitalized: [link]

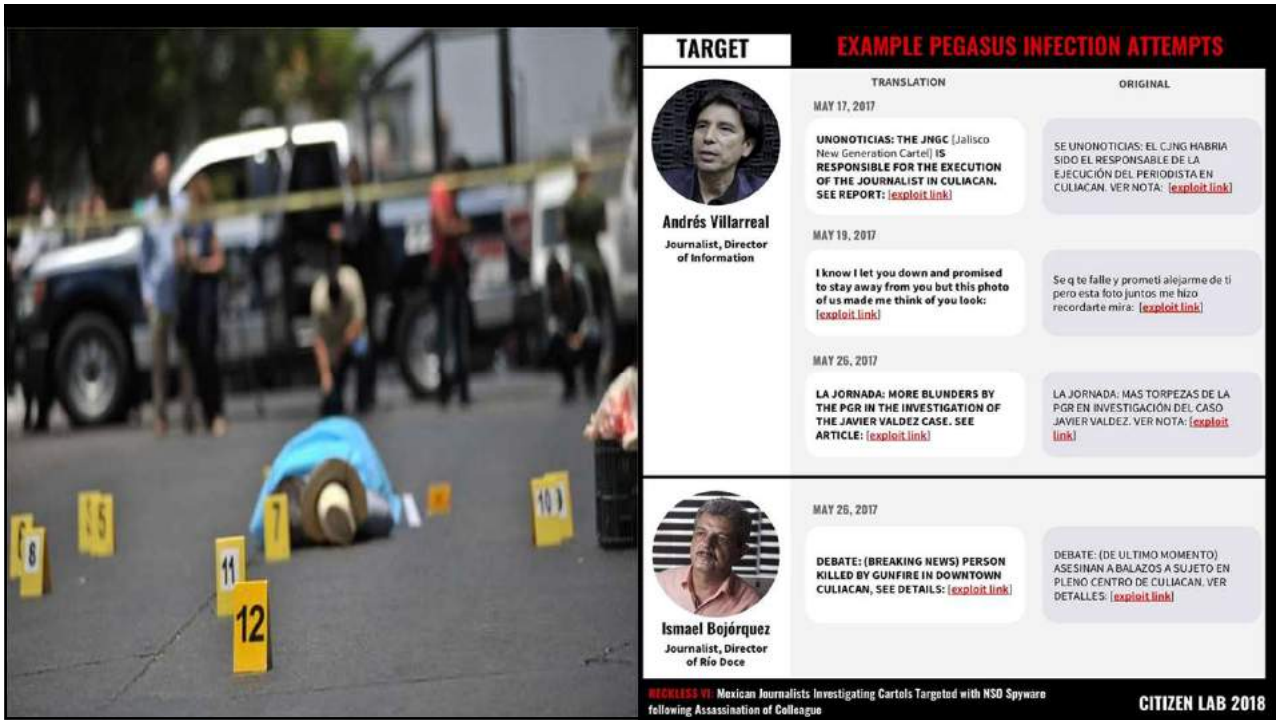
12

13

14

USEMBASSY.GOV/ WE HAVE DETECTED A PROBLEM WITH YOUR VISA PLEASE GO PROMPTLY TO THE EMBASSY. SEE DETAILS: [exploit link]
Translation
USEMBASSY.GOV/ DETECTAMOS UN PROBLEMA CON TU VISA POR FAVOR ACUDE PRONTAMENTE A LA EMBAJADA. VER DETALLES [exploit link]
Original

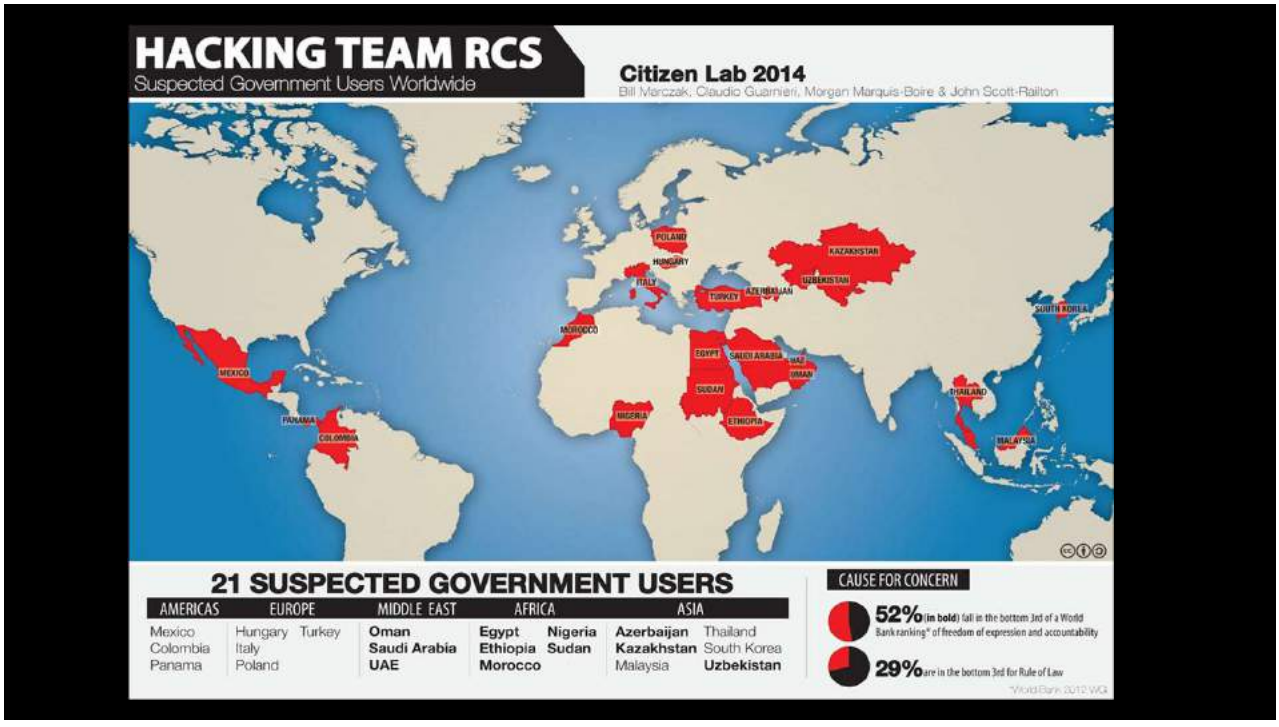
15


TARGET
EXAMPLE PEGASUS INFECTION ATTEMPTS
TRANSLATION
ORIGINAL
Andrés Villarreal
Journalist, Director of Information
MAY 17, 2017
UNONOTICIAS: THE JNGC (Jalisco New Generation Cartel) IS RESPONSIBLE FOR THE EXECUTION OF THE JOURNALIST IN CULIACAN. SEE REPORT: [exploit link]
SE UNONOTICIAS: EL CJNG HABRIA SIDO EL RESPONSABLE DE LA EJECUCIÓN DEL PERIODISTA EN CULIACAN. VER NOTA: [exploit link]
MAY 19, 2017
I know I let you down and promised to stay away from you but this photo of us made me think of you look: [exploit link]
Se q te falle y prometí alejarme de ti pero esta foto juntos me hizo recordarte mira: [exploit link]
MAY 26, 2017
LA JORNADA: MORE BLUNDERS BY THE PGR IN THE INVESTIGATION OF THE JAVIER VALDEZ CASE. SEE ARTICLE: [exploit link]
LA JORNADA: MAS TORPEZAS DE LA PGR EN INVESTIGACIÓN DEL CASO JAVIER VALDEZ. VER NOTA: [exploit link]
Ismael Bojórquez
Journalist, Director of Río Doce
MAY 26, 2017
DEBATE: (BREAKING NEWS) PERSON KILLED BY GUNFIRE IN DOWNTOWN CULIACAN, SEE DETAILS: [exploit link]
DEBATE: (DE ULTIMO MOMENTO) ASESINAN A BALAZOS A SUJETO EN PLENO CENTRO DE CULIACAN. VER DETALLES: [exploit link]
RECKLESS VI: Mexican Journalists Investigating Cartels Targeted with NSO Spyware following Assassination of Colleague
CITIZEN LAB 2018

16

RECKLESS VII: 25 TARGETED IN MEXICO WITH NSO GROUP'S SPYWARE (March 2019)
MEDIA
Aristegui Noticias[1]
Carmen Aristegui
Journalist
Emilio Aristegui
Carmen's son (a minor)
Rafael Cabrera
Journalist
LAW
Representing families in the Narvarte killings[5]
Karla Michael Salas
Lawyer
David Peña
Lawyer
Centro Miguel Agustín Pro
PUBLIC HEALTH
El Poder del Consumidor[2]
Alejandro Calvillo
Director
Contra PESO Coalition[2]
Luis Encarnación
Coordinator
GOVERNMENT
Senate of the Republic[3]
Sen. Roberto Gil Zuarth
Senate President
Partido Acción Nacional (PAN)[3]
Ricardo Anaya Cortés
President of the party
ANTI-CORRUPTION
Instituto Mexicano para la Competitividad[1]
Juan Pardinas
Director
Alexandra Zapata
Staff
Mexicanos Contra la
INTERNATIONAL INVESTIGATIONS
Interdisciplinary Group of Independent Experts (GIEI)[4]
GIEI
GIEI Investigation
Into 2014 Iguala Mass Disappearances
More than 25 cases so far!
Ismael Bojórquez
Journalist, Director
Griselda Triana
Journalist
RECKLESS VII: Wife of Journalist Slain in Cartel-Linked Killing Targeted with NSO Group Spyware
Scott-Railton J, Marczak B, Anstis S, Abdulrazzak B, Crete-Nishihata M & Deibert R
CITIZEN LAB 2019

17


HACKING TEAM RCS
Suspected Government Users Worldwide
Citizen Lab 2014
Bill Marczak, Claudio Guarnieri, Morgan Marquis-Boire & John Scott-Railton
POLAND
HUNGARY
ITALY
KAZAKHSTAN
UZBEKISTAN
TURKEY
AZERBAIJAN
SOUTH KOREA
MOROCCO
EGYPT
SAUDI ARABIA
UAE
OMAN
SUDAN
MEXICO
PANAMA
COLOMBIA
NIGERIA
ETHIOPIA
THAILAND
MALAYSIA
21 SUSPECTED GOVERNMENT USERS
AMERICAS
Mexico
Colombia
Panama
EUROPE
Hungary
Italy
Poland
Turkey
MIDDLE EAST
Oman
Saudi Arabia
UAE
AFRICA
Egypt
Ethiopia
Morocco
Nigeria
Sudan
ASIA
Azerbaijan
Kazakhstan
Malaysia
Thailand
South Korea
Uzbekistan
CAUSE FOR CONCERN
52% (in bold) fall in the bottom 3rd of a World Bank ranking* of freedom of expression and accountability
29% are in the bottom 3rd for Rule of Law

18

BELGIUM
CZECH REP.
SLOVENIA
ROMANIA
BOSNIA
SERBIA
ITALY
MACEDONIA
SPAIN
TURKEY
KAZAKHSTAN
MONGOLIA
TURKMENISTAN
LEBANON
MOROCCO
JORDAN
EGYPT
SAUDI ARABIA
OMAN
BANGLADESH
TAIWAN
MEXICO
VENEZUELA
NIGERIA
ETHIOPIA
KENYA
GABON
MALAYSIA
INDONESIA
ANGOLA
PARAGUAY
SOUTH AFRICA
FINFISHER SPYWARE
Suspected Government Users In 2015
Citizen Lab 2015
Bill Marczak, John Scott-Railton,
Adam Senft, Irene Poetranto & Sarah McKune

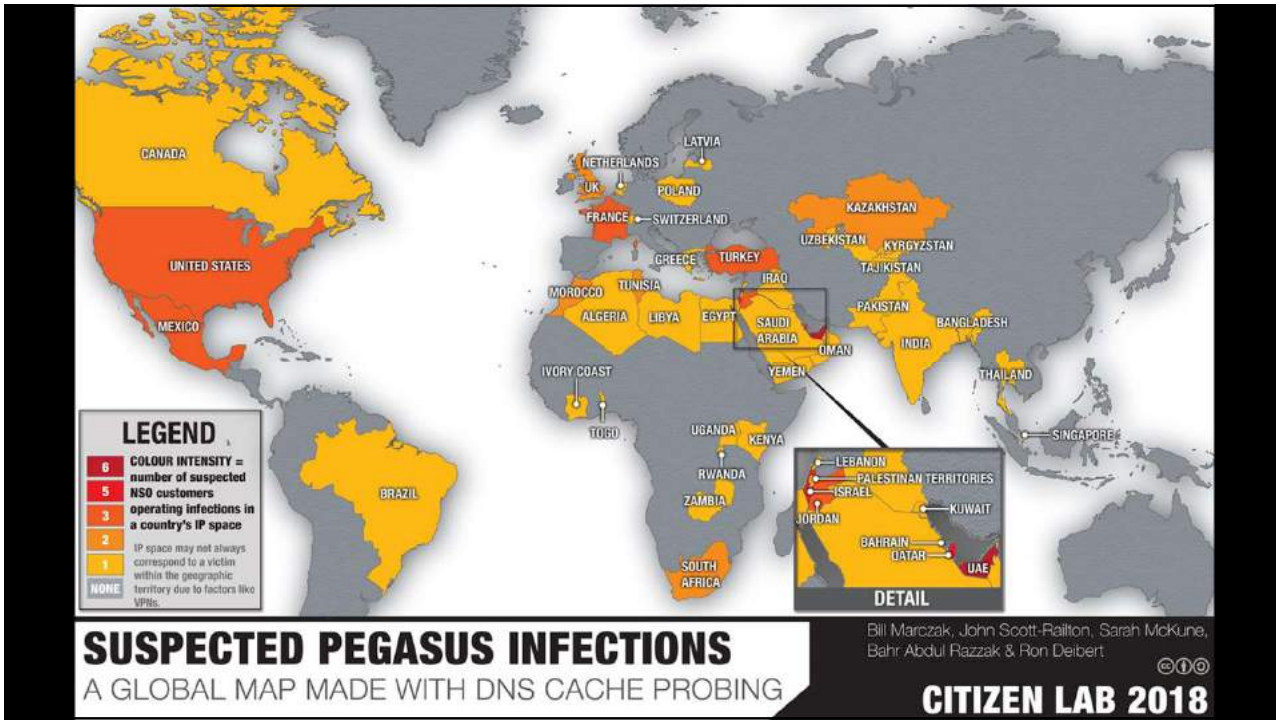
19

NORWAY
CANADA
UK
GERMANY
BELGIUM
ITALY
UNITED STATES
JAPAN
EGYPT
QATAR
INDIA
ERITREA
YEMEN
ETHIOPIA
UGANDA
RWANDA
KENYA
LEGEND
Infection identified via scanning
No infection found
SOUTH AFRICA
AUSTRALIA
TARGET LOCATIONS: ETHIOPIA'S USE OF PSS
IDENTIFIED BY CITIZEN LAB IN 2017
MARCZAK, ALEXANDER, MCKUNE
SCOTT-RAILTON, DEIBERT
CITIZEN LAB 2017

20

EXAMPLE: DEMO GIVEN TO "SECRET POLICE" IN UZBEKISTAN
TESTING AT HOTEL
11:23p - 1:10a
8:46a - 9:06a
RADISSON BLU
TASHKENT
DEMO DAY ONE
3:40p-3:45p
5:16p-6:24p
DEMO DAY TWO
12:09p-12:41p
2:27p-2:45p
NATIONAL SECURITY SERVICE
TASHKENT
CZECH REP.
2017: June
ISS WORLD
KAZAKHSTAN
2016: December
2017: March, April
KAZIMPEX
FRANCE
2016: October
2017: November
MILIPOL
SERBIA
2017: March
UZBEKISTAN
2016: March
NATIONAL SECURITY SERVICE
VIETNAM
2016: November
NIGERIA
2017: March
THAILAND
2016: March
ROYAL THAI ARMY
PHILIPPINES
2017: February, November
OFFICE OF THE PRESIDENT
RWANDA
2017: January
ZAMBIA
2016: December
FINANCIAL INTEL. CENTER
CYBERBIT DEMOS
Observed in 2016-2017
Cyberbit employees regularly travel to give demonstrations of the Cyberbit spyware. In some cases they appear to test or demo the spyware from their hotels.
Some of the countries have dubious human rights records.
MARCZAK, ALEXANDER, MCKUNE
SCOTT-RAILTON, DEIBERT
CITIZEN LAB 2017

21


CANADA
UNITED STATES
MEXICO
BRAZIL
NETHERLANDS
LATVIA
UK
POLAND
FRANCE
SWITZERLAND
GREECE
TURKEY
MOROCCO
TUNISIA
ALGERIA
LIBYA
EGYPT
IRAQ
SAUDI ARABIA
OMAN
YEMEN
IVORY COAST
TOGO
UGANDA
KENYA
RWANDA
ZAMBIA
SOUTH AFRICA
KAZAKHSTAN
UZBEKISTAN
KYRGYZSTAN
TAJIKISTAN
PAKISTAN
BANGLADESH
INDIA
THAILAND
SINGAPORE
LEGEND
8 COLOUR INTENSITY = number of suspected NSO customers operating infections in a country's IP space
5
3
2
1
NONE
IP space may not always correspond to a victim within the geographic territory due to factors like VPNs.
LEBANON
PALESTINIAN TERRITORIES
ISRAEL
KUWAIT
JORDAN
BAHRAIN
QATAR
UAE
DETAIL
SUSPECTED PEGASUS INFECTIONS
A GLOBAL MAP MADE WITH DNS CACHE PROBING
Bill Marczak, John Scott-Railton, Sarah McKune, Bahr Abdul Razzak & Ron Deibert
CITIZEN LAB 2018

22

CANADA
UK
FRANCE
TURKEY
LEBANON
IRAQ
JORDAN
QATAR
EGYPT
SAUDI ARABIA
BAHRAIN
MOROCCO
LEGEND
Suspected NSO Pegasus infection(s) linked to the KINGDOM operator
No infection observed
IP space may not always correspond to a victim within the geographic territory due to factors like VPNs.
PEGASUS INFECTIONS LINKED TO KINGDOM OPERATOR
2018
KINGDOM is our name for a Saudi Arabia-linked suspected operator of NSO's Pegasus spyware. KINGDOM infected a Canadian permanent resident who is a critic of Saudi Arabia's human rights record. KINGDOM also attempted to infect a blogger living outside the country, and an Amnesty International researcher.
Bill Marczak, John Scott-Railton, Adam Senft, Bahr Abdul Razzak, & Ron Deibert
THECITIZENLAB

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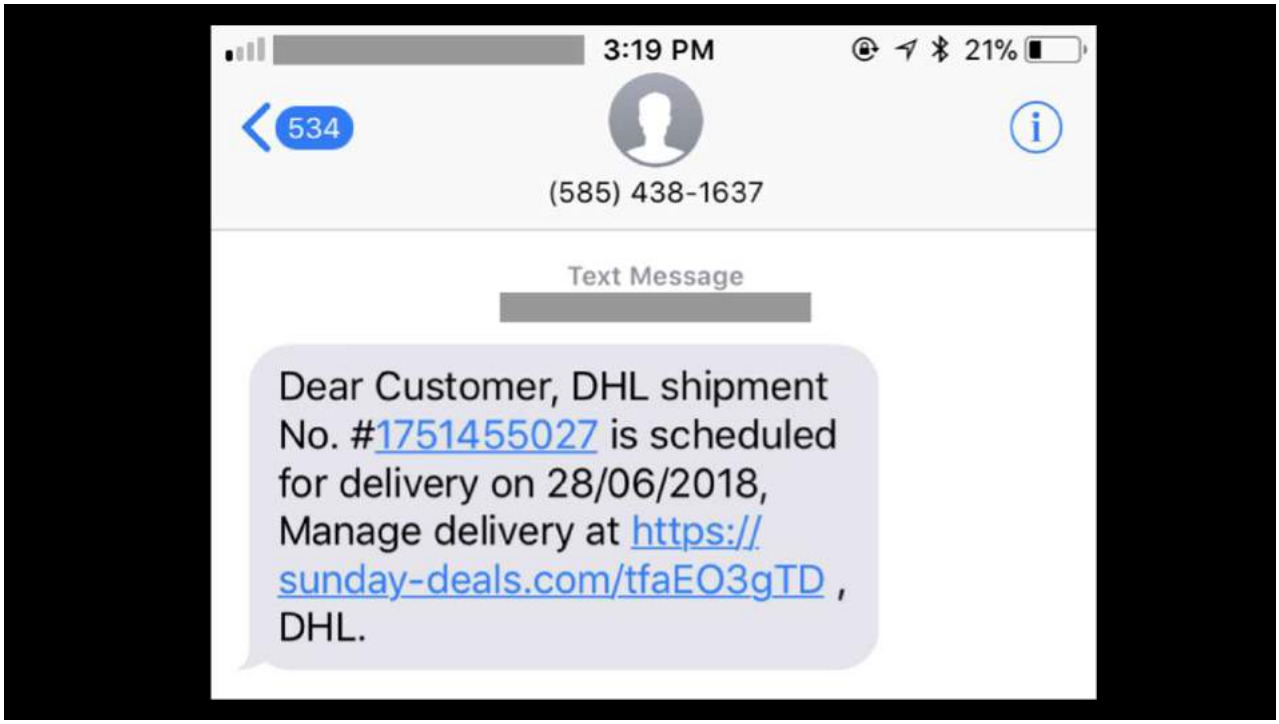
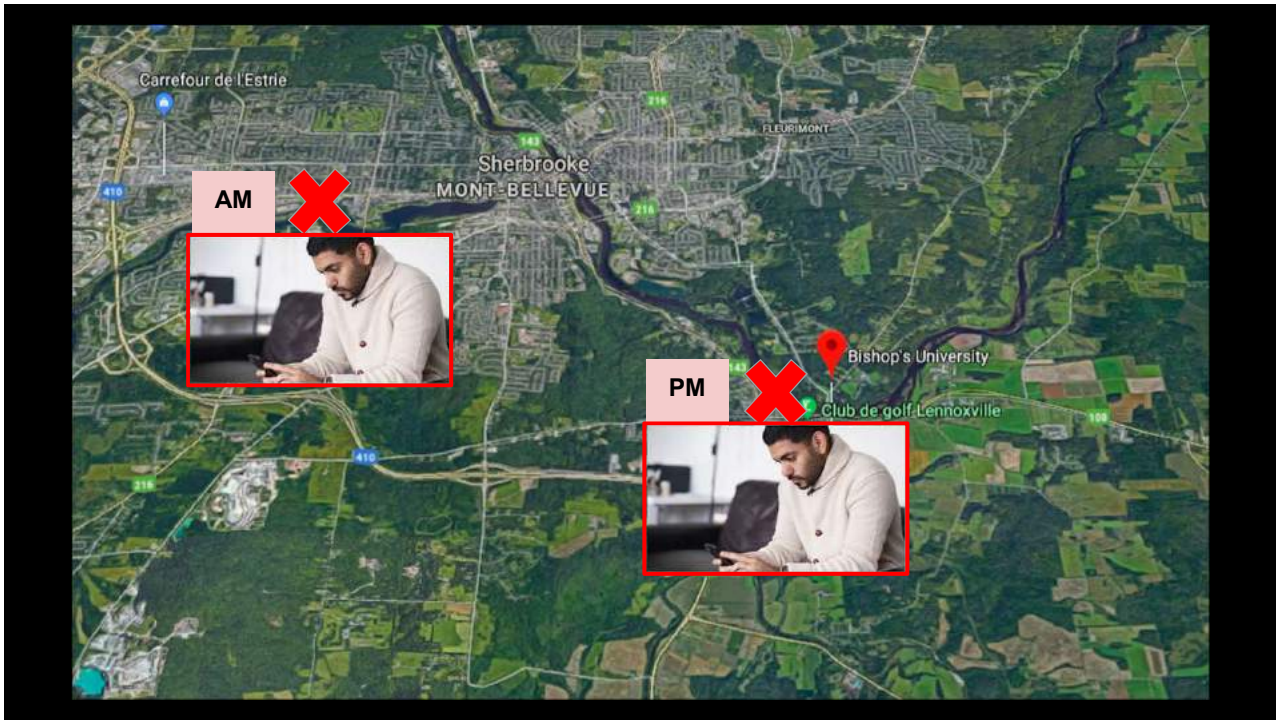
فقدرت
ظلم
فقر
جوع
خير
ضعف
مسؤول
قهر
عزة
حرية
أمل
حياة كريمة
وطن

24


3:19 PM
21%
534
(585) 438-1637
Text Message
Dear Customer, DHL shipment No. #1751455027 is scheduled for delivery on 28/06/2018, Manage delivery at https://sunday-deals.com/tfaEO3gTD , DHL.

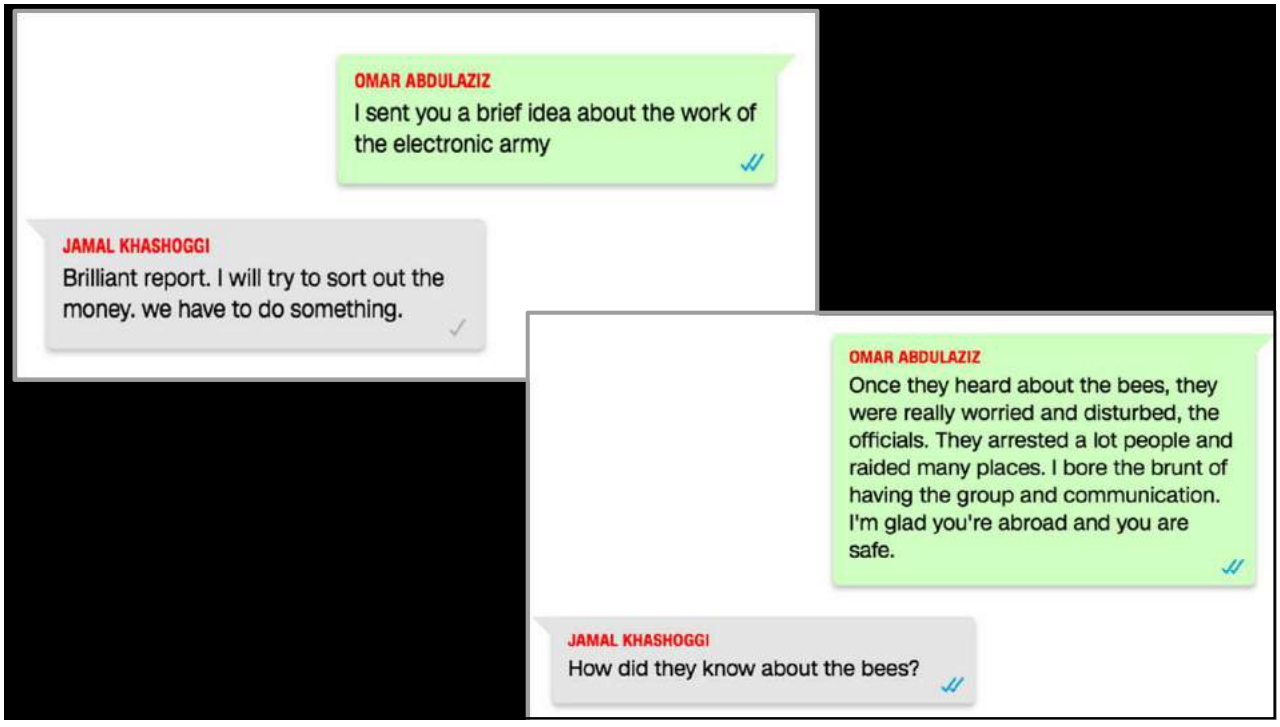
25


Carrefour de l'Estrie
Sherbrooke
MONT-BELLEVUE
FLEURIMONT
AM
PM
Bishop's University
Club de golf Lennoxville

26

Khashoggi messages reveal sharp criticism of MBS
03:52
Jamal Khashoggi's private WhatsApp messages may offer new clues to killing

27


OMAR ABDULAZIZ
I sent you a brief idea about the work of the electronic army
JAMAL KHASHOGGI
Brilliant report. I will try to sort out the money. we have to do something.
OMAR ABDULAZIZ
Once they heard about the bees, they were really worried and disturbed, the officials. They arrested a lot people and raided many places. I bore the brunt of having the group and communication. I'm glad you're abroad and you are safe.
JAMAL KHASHOGGI
How did they know about the bees?

28

APNewsBreak: Undercover agents target cybersecurity watchdog

By RAPHAEL SATTER January 27, 2019

29

BLACKCUBE®

A select group of veterans from the Israeli elite intelligence units that specialises in tailored solutions to complex business and litigation challenges

30

Let's Widen Out to Look at Big Picture

AKA Why things Are Going to get Worse before Getting Better!

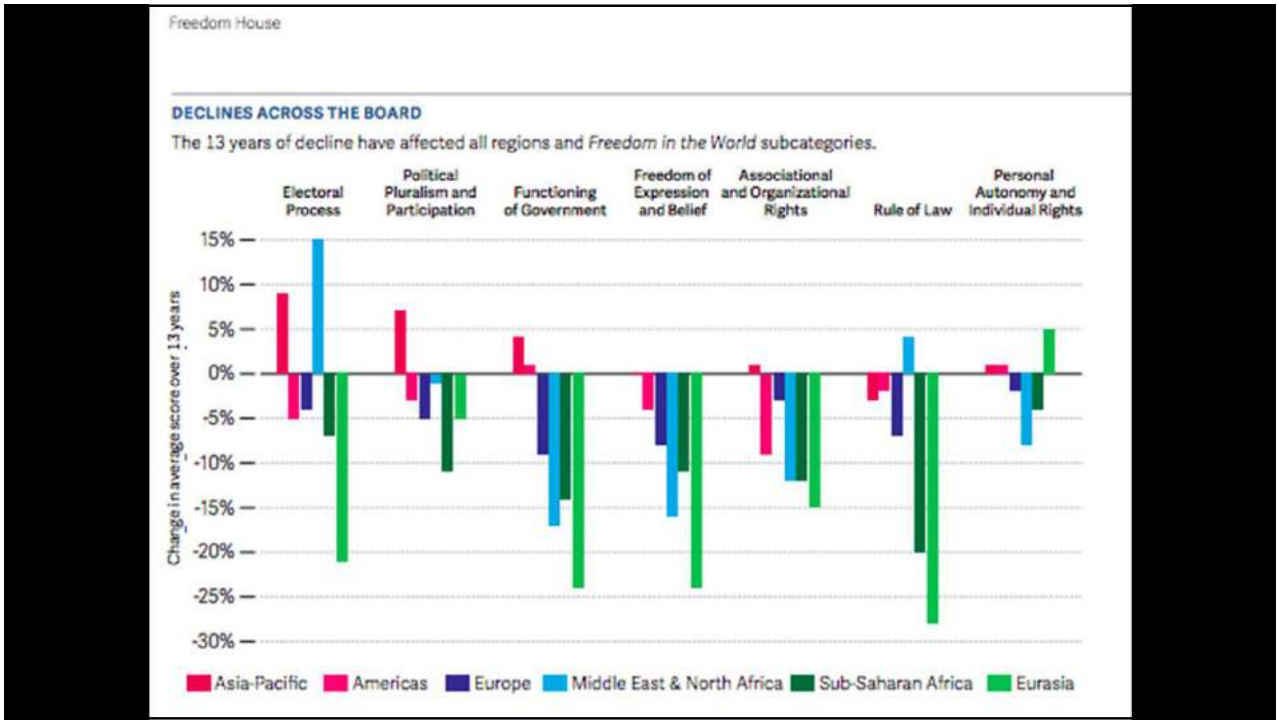
31

Authoritarianism Resurgent

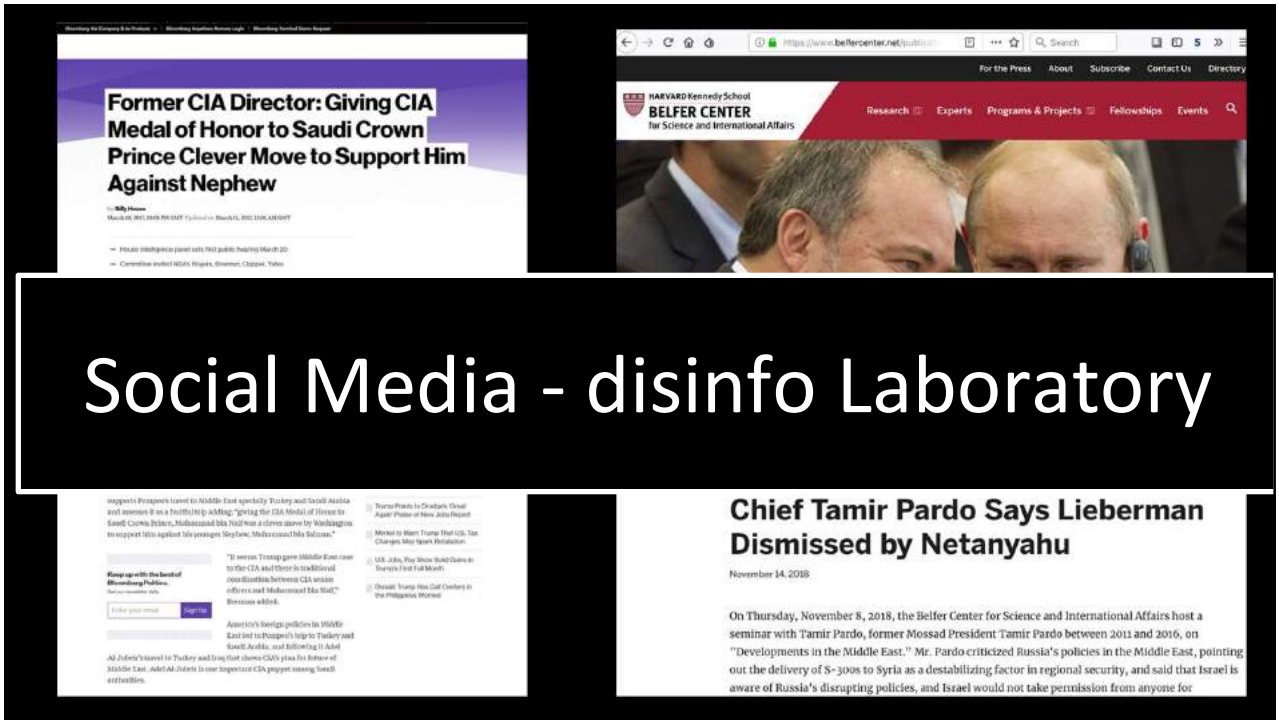
32

FREEDOM
IN THE WORLD
2019
FREEDOM

33


Freedom House
DECLINES ACROSS THE BOARD
The 13 years of decline have affected all regions and Freedom in the World subcategories.
Electoral Process
Political Pluralism and Participation
Functioning of Government
Freedom of Expression and Belief
Associational and Organizational Rights
Rule of Law
Personal Autonomy and Individual Rights
15%
10%
5%
0%
-5%
-10%
-15%
-20%
-25%
-30%
Change in average score over 13 years
Asia-Pacific
Americas
Europe
Middle East & North Africa
Sub-Saharan Africa
Eurasia

34



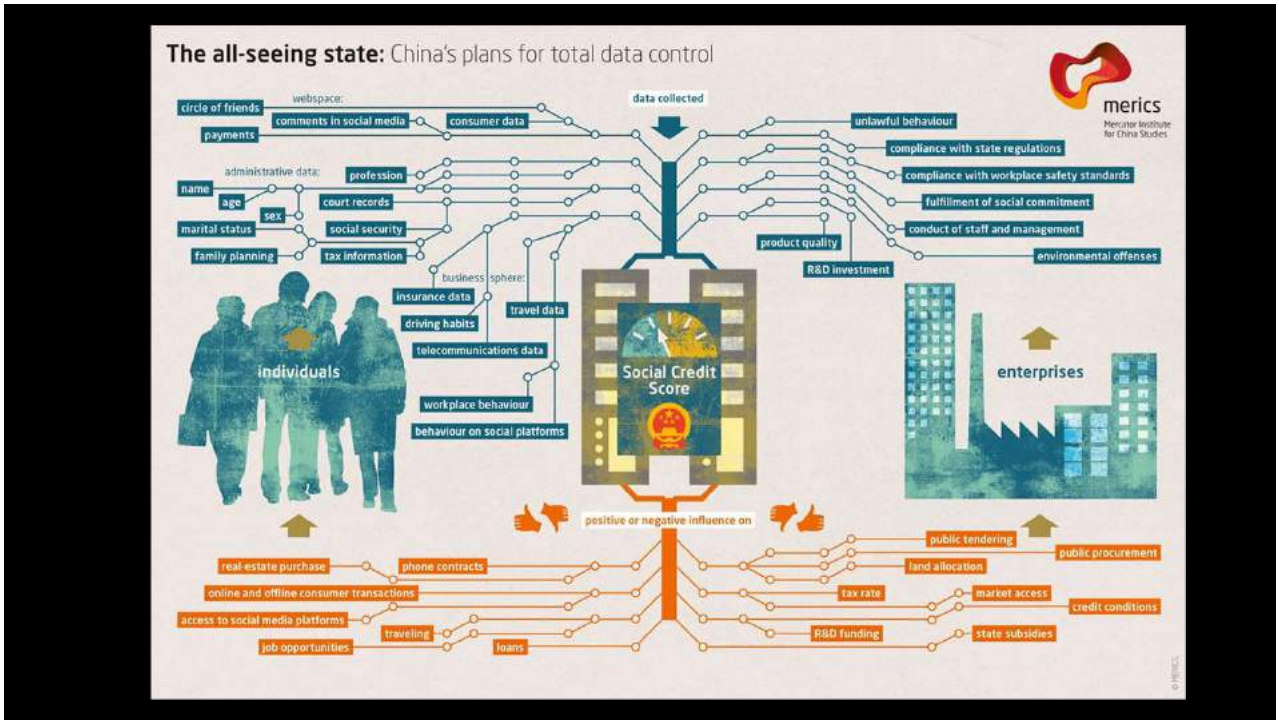
Social Media - disinfo Laboratory

35

Big Data/IoT/AI/etc

All The More Data + Devices To Exploit!

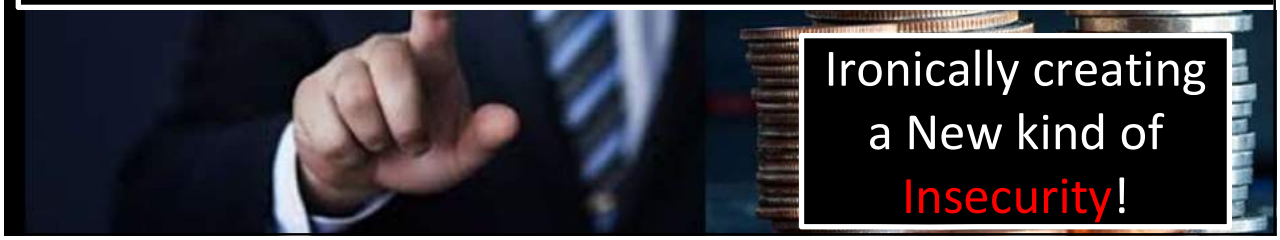
36



37

"CyberSEcurity" Market BOOming!

But unregulated and Prone to abuse



38

Crisis of Liberal Democracy

- Conventional wisdom on digital tech and democracy in question
- Degradation of Global Civil Society
- Liberal Democratic institutions not permanent features; erosion under way

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40