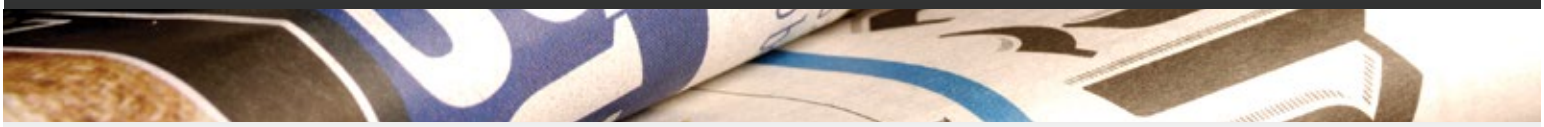

TII INTERNET INTELLIGENCE NEWSLETTER

MARCH 2014 EDITION

IN THIS EDITION

FEATURED ARTICLES:

UPCOMING EVENTS:

RESOURCES FOR INVESTIGATORS & INTELLIGENCE PROFESSIONALS:

WELCOME TO THE MARCH EDITION OF THE TII ONLINE RESEARCH AND INTELLIGENCE NEWSLETTER

We'd like to thank all of those who attended last month's 3-day Internet Intelligence workshops in Vancouver and Toronto. With a full compliment of delegates from Canada, the US, the Caribbean, Europe and the Middle East, the workshops represented a great learning and networking opportunity, as well as a chance to see two of Canada's most beautiful cities.

With updated curriculums, our next Canadian-based 3-day Advanced Internet Intelligence Training conferences will be in Vancouver at the Pan Pacific Hotel September 22 - 24, 2014 and Toronto at the Royal York Hotel October 6 - 8, 2014.

We will also be conducting a 2-day Advanced Online OSINT workshop in Hong Kong April 2nd to 3rd, 2014, and presenting our bi-annual 3-day Internet Intelligence Training conference at the University of Cambridge in conjunction with our friends at the International Chamber of Commerce, Commercial Crime Services, April 7th to 9th, 2014.

Congratulations to our students who have completed our e-Learning courses in the last two months: Paul Smith, Annette Scheer, Laureen Molulu-Knight - Custom House, Frank Sirianni - Ontario Lottery and Gaming Corporation, Chris Pyer - UK, Steve Ganyu - RBC, Michelle Cameron - RCMP and Alexandra Phillips - Australian Defence.

Have Questions About Our Services or Upcoming Events? Contact us:

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OSIRA INAUGURAL CONFERENCE: LONDON | MAY 7 - 8, 2014

OSIRA

OPEN SOURCE INTELLIGENCE AND RESEARCH ASSOCIATION

The Open Source Intelligence and Research Association is comprised of knowledge professionals and practitioners from research, investigation and intelligence fields, globally, with a mandate to promote best practice and innovation through education, recognition and continual professional development.

Members of OSIRA can earn professional designations for the successful completion of recognized, participating education programs, as well as relevant professional experience, published articles and recommendations from colleagues and peers.

OSIRA also provides a global networking opportunity for intelligence professionals to communicate, share ideas and best practice, and enhance career opportunities.

The Inaugural OSIRA Conference will be held May 7 - 8, 2014 in London, UK at the Royal United Services Institute, an independent think tank engaged in cutting edge defence and security research. At a cost of only £150, you can register online at osira.net.

TOR PROJECT UPDATES

With the recent release of version 3.x of the Tor Browser Bundle, users will notice some significant changes over past versions. The Vidalia Control Panel, which would display circuit status and a network map, among other things, has been replaced with the simplified Tor Launcher, a much less descriptive interface used to connect to the Tor network.

The most recent Tor Browser has also undergone a number of changes. With a customized version of Firefox 24 now as standard, a variety of control features are accessed via the Tor Button, including New Identity, which now resets your browser windows when creating a new circuit.

The latest version of Tor is now much easier to use and will appeal to novice users.

***See also**: "Tor is building an anonymous instant messenger" - Experimental build due to be released March 31st http://goo.gl/oPNaHz*

SMART PHONE SPYING FOR THE MASSES

Advertised as “100% undetectable” software that can be installed on Apple, Android, BlackBerry and Windows devices, mSpy claims to bring advanced monitoring capability to anyone who is able to gain physical access to the target phone, and is willing to pay from between $40/month for the “Basic” package to the $850/year “Business” package. iPhones are required to be “jailbroken” and Android devices need to be rooted for full functionality - the company does offer pre-configured phones with the mSpy application already installed.

mSpy advertises that its software is able to provide call recording, SMS tracking, GPS tracking, key logging and the ability to open the devices microphone among many other things.

While the firm does provide the disclaimer that “My Spy (mSpy) is designed for monitoring your employees or underage children on a smartphone or mobile device that you own or have proper consent to monitor. You are required to notify users of the device that they are being monitored”, the criminal applications for this software are immense.

On its website, mSpy claims over “1,000,000 users” worldwide; the mSpy website also contains numerous spelling errors and questionable grammar, along with testimonials accompanied by freely available stock image portraits of the people who purportedly gave them.

Maintaining physical control of your device and not accepting smart phones from anyone that may want access to your communications and data would seem to be best defence against mSpy.

See also: Protect My Privacy an app that lets you protect the personal information on your (jailbroken) iPhone.

SECURE COMMUNICATIONS: SILENT CIRCLE AND GEEKSPHONE RELEASE "BLACKPHONE"

For some months now, we have been using and recommending the Silent Circle suite of applications, which allows users of iOS and/or Android devices to encrypt voice data (Silent Phone) and text messages (Silent Text).

Announced at the 2014 Mobile World Congress in Barcelona, Silent Circle has now teamed up with Madrid based Geeksphone to create the Blackphone, a smartphone aimed at consumers and business users who want to take steps to secure their communications.

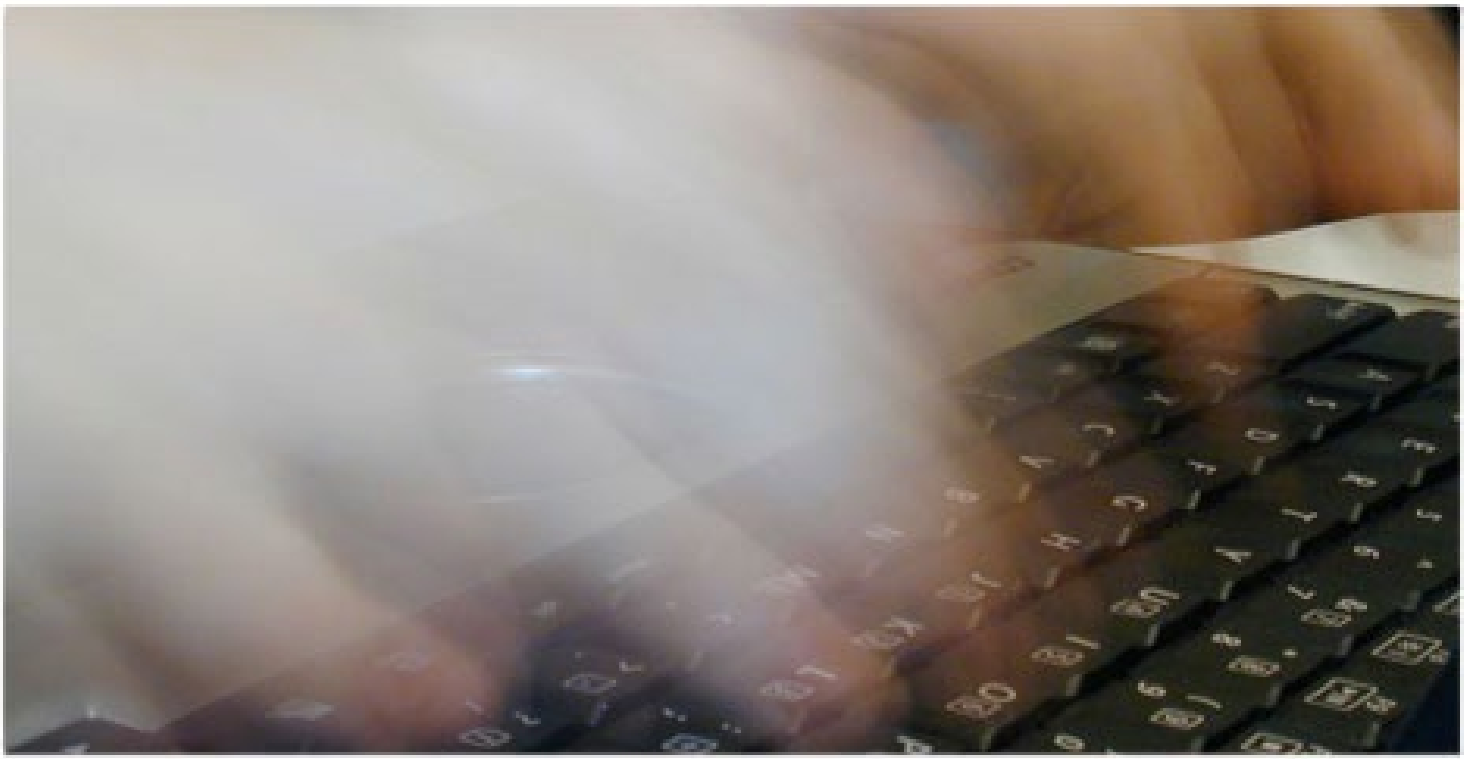
Based on a security-oriented Android build named PrivatOS, the Blackphone is designed with security in mind, allowing users to send and receive secure phone calls, exchange secure texts, transfer and store files, and video chat without compromising user privacy.

At a pre-order price of $629 (plus shipping), the Blackphone comes with a 2 GHz quad-core SoC processor, a 4.7" HD display, 16GB of on-board storage, an 8MP (with flash) camera and an international power adaptor kit. More importantly though, the Blackphone comes bundled with a 2-year subscription to Silent Circle, three 1-year "friends and family" Silent Circle subscriptions, a 2-year subscription to the secure Spider Oak "zero knowledge" cloud storage service (5GB/month) and a 2 year subscription to Disconnect, a secure VPN designed to stop wireless eavesdropping over Wi-Fi, 3G, and 4G networks. This total Blackphone pre-order price looks pretty good given that the retail cost of bundled software subscription alone amounts to some $840.

On paper, the Blackphone looks like an economical and viable option for privacy aware individuals. Like any security product however, it will come down to effective OPSEC practices and an awareness of the device's strengths and weaknesses that will ultimately determine if the user is able to stay secure or not.

With delivery promised for June 2014, we've purchased a few Blackphones and will write a review here in the newsletter when we receive the devices.

DEANONYMIZING DOCUMENTS AND IDENTIFYING AUTHORSHIP THROUGH STYLOMETRY



In July of 2013, the Sunday Times revealed that author Robert Galbraith, who had written the crime novel “The Cuckoo’s Calling”, was in fact J.K. Rowling of Harry Potter fame.

Following a tip as to the actual author of the fictional work, the Sunday Times recruited the services of Dr. Patrick Juola, a professor of computer science at Duquesne University with expertise in computer linguistics and computer security. Dr. Juola has, for some years, been working on software to asses stylistic similar writing automatically, testing different stylistic features in an effort to distinguish individual authors.

Applying various mathematical analysis algorithms against “The Cuckoo’s Calling” and comparing the results to those of four other authors, Dr. Juola concluded that the book in question was most likely written by Rowling. Before going to press, the Sunday Times directly asked J.K. Rowling’s agent if she had in fact written the book, and through her spokesperson, the author admitted that she did.

Related to forensic linguistics, “stylometry” is the study of writing style focusing on unique traits such as word choice, sentence length, and sentence structure (sometimes referred to as a “writeprint”). Aside from being useful as a component of the plagiarism detection process, stylometry has the potential to be very useful to the law enforcement and intelligence communities for identifying authors who write under a pseudonym, or who are attempting to remain anonymous.

While it has long been thought that writing is invariant, current research is showing that a writeprint is like a fingerprint; you can’t really change it.

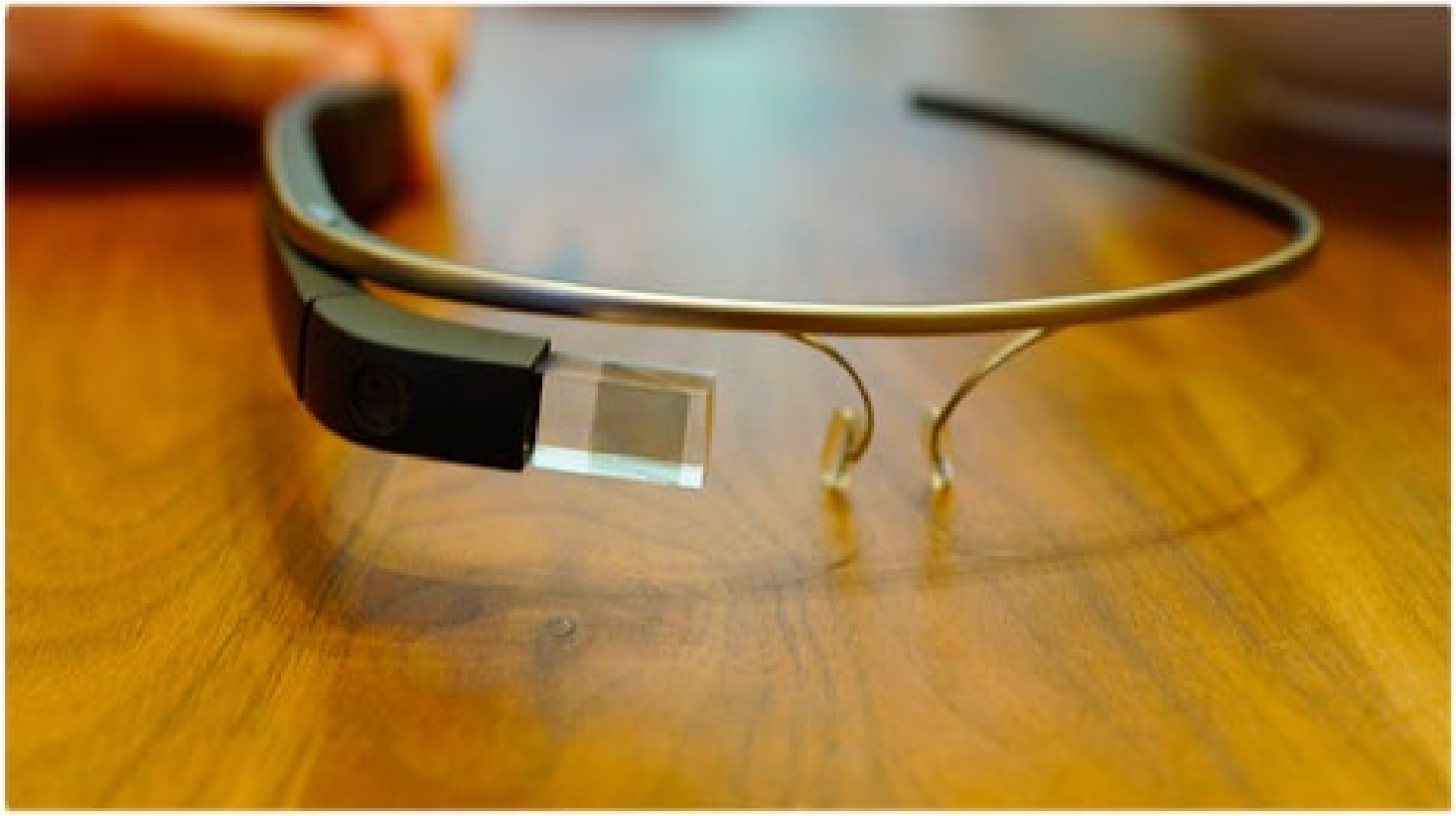
Effective stylometric analysis is dependent on a number of factors. Researchers currently believe that identification of a specific author can be demonstrated using appropriate techniques with 6500+ words of training data, 500+ words of test data, and a pool of 50 or less suspect authors. These results will be affected by the length of each written text - the more raw material an analyst has to work with, the better the results will likely be.

While beneficial to investigators and intelligence personnel, stylometry also represents a threat to individuals who legitimately need to protect their identity.

Alongside new stylometric analysis applications, a new breed of anonymity tools are also emerging. “Anonymouth”, currently under development by Drexel University’s Privacy, Security and Automation Lab, is a Java-based application designed to anonymize documents by stripping stylistic markers while retaining intended meaning. Still in rough “alpha” phase, Anonymouth requires some advanced computer skills to run as well as human intervention to oversee the text it produces, but it does signal an interesting direction in anti-stylometry detection.

Of course, you could still try and defeat stylometric analysis the old-fashioned (and possibly ineffective) way, by attempting to change your writing style, imitating the style of another author, or even translating a document to one or more languages and then back to the original language using any number of freely available language translation web sites.

CHANGING OUR WORLD: THE INTERNET OF THINGS



Ten years ago we used computers and browsers to seek out and “pull” information from the Internet. In this second decade of the 21st century, it is increasingly through devices and apps that we access the ‘Net, as we both “push” and “pull” more and more information online through social networks.

As we move towards the “frictionless sharing” of information, we are becoming connected to networks via “objects” that are neither computers nor devices in the traditional sense. Increasingly, we are using vast clusters of uniquely identifiable objects that interact within an Internet-like network, or as British technology pioneer Kevin Ashton termed it in 1999, an “Internet of Things”.

As a basis of the “Internet of Things” (“IoT”), think of Radio Frequency Identification tags (RFID) and barcodes that can allow objects used in our daily lives to be tracked and inventoried by computer systems, sometimes automatically without any conscious action on our part.

Now consider the emergence of numerous consumer grade GPS devices that connect to the Internet through various means to allow family and friends to track our movements.

And all this is just the start...

Google has now entered the IoT market with its $3.2 billion purchase of Nest Labs earlier this year. Also in January, it announced it had created the Open Automotive Alliance, a group of automotive and chip companies (including GM, Honda, Hyundai and Nvidia), who plan to use the Android operating system for in-car apps.

Not to be outdone, Apple also announced CarPlay last month, bringing iOS functionality to the built-in systems of cars manufactured by Ferrari, Honda, Hyundai, Jaguar, Mercedes-Benz, and Volvo later this year, and a host of other manufacturers coming soon.

The possibilities of mobile technology incorporated into our vehicles are wide ranging, from an "event data recorder" that could see you obtain lower insurance rates as your car directly connects to your insurance company providing data on your driving habits, to seamless interaction with your "smart home", with your Android/iOS powered car accurately predicting your arrival home to within a few minutes, ensuring that your house is lit and heated to your liking the moment you walk in the door.

The IoT is about to change how we will interact with digital content in the real world as well; with Apple's recently released iBeacon, brick and mortar establishments will have the ability to track your movements to within inches (referred to as "microlocation") as you move throughout their property. In the case of storefront facilities, iBeacon enabled apps can deliver you targeted discount coupons based on the time you are spending in specific areas of the shop on this and possibly your past visits. In-store navigation and dynamic pricing are now possible along with a host of other yet-to-be thought of features, all starting with the merchant purchasing a $100 low energy bluetooth beacon.

"Ambient Intelligence", devices working seamlessly together to support people carrying out their everyday life activities and tasks using information and intelligence hidden in the network is quickly coming upon us.

Sensors and processing power are now very inexpensive, and the wireless infrastructure is in place to support a significant degree of interconnectivity. With a new level of peer-to-peer capability and the seamless setup of gadgets, some are predicting that by the year 2020 we could be seeing as many as 30 billion network connected devices functioning around us, and that anything with an on/off switch will eventually have some sort of an online presence.

In a world of interconnected, often invisible, smart gadgets, our lives ten years from now could be unimaginably different from our lives today.

And with this radical shift will come previously unknown opportunities and threats to law enforcement; new investigative avenues will open and law enforcement personnel will require a new level of technology awareness as host of new criminal activities emerges.

Privacy will require a radical rethink and we will likely see demand for a new kind of ICT specialist; a combined engineer/analyst who can develop new products, as well as process the data they collect.

Science Fiction? Maybe. Futurists don't always get it right, just consider the flying cars that we were all predicted to be owning by some popular magazines of the 1930's.

But then again, who would have predicted just 10 years ago that 1.23 billion users would be connected to a social networking site called Facebook on a monthly basis, that a site called Youtube would be serving up 3.5 billion on-demand videos a day (and allow people to upload their own videos and become global sensations), or that a device called an iPhone would, as a single device, effectively replace our phone, computer, camera, camcorder, GPS and more? How many predicted at that same time, the possibility of facial recognition technology incorporated into smart phones allowing anyone to identify an individual by taking their picture and searching the web for other identifiable images of that same person?

Whatever shape it takes, the "Internet of Things" will change the world of law enforcement and afford significant investigative opportunities never before seen. With these opportunities will also come new threats to many areas of policing and public safety. And we will see our legal system increasingly struggle with many significant challenges as the rate of technological change outpaces the rate in which legislative change can occur.

For all of us, the privacy implications are, and will be, enormous.

We frequently say during many of our seminars and training workshops that it's essential that investigators and researchers employ lateral "outside the box" thinking when leveraging the Internet, and that it is not the Internet of today we need to be considering when planning for the years immediately in front of us, we need to be thinking about the technology we don't know about and that hasn't even been invented yet.

ELEARNING: "USING THE INTERNET AS AN INVESTIGATIVE RESEARCH TOOL"

The most comprehensive and up-to-date Internet Research e-Learning program available anywhere, "Using the Internet as an Investigative Research Tool" is designed to enable investigators, researchers and intelligence personnel to find better online information, in less time, at less cost, with less risk".

For a fraction of the cost of a classroom based training course, our flexible and interactive virtual classroom environment allows candidates to progress at their own pace and competency level with a qualified personal instructor on hand at all times to ensure success. Initially launched in 1998, this highly acclaimed and continually updated online course has been successfully completed by over six thousand investigators and knowledge workers around the world.

"This information packed course was comprehensive, well-constructed and presented in a format which takes the student through the steps of learning on-line skills at a pace which allows for good understanding of the materials presented. I would highly recommend (and have done) that anybody interested in this area take this course. I was particularly impressed at the balanced and easily understood way in which the various areas were covered. This is a course which someone with a reasonable level of computer skills can take and become proficient in without having to have years of IT expertise, and yet come away with a high level of knowledge of the principles of Online Investigative research. This approach gives the student the confidence to challenge themselves and improve, which is the best recommendation for any kind of course."

(Comment from recent e-Learning attendee)

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For more information and immediate sign up, visit: http://www.toddington.com/etraining

USEFUL SITES AND RESOURCES FOR ONLINE INVESTIGATORS

Click here to visit TII's Free Internet Research Resources

- http://opencellid.org/ - Worldwide database of mobile phone IDs and corresponding location areas; includes GPS location search feature
- http://samy.pl/peepmail/elift.cgi - Locate an email address for someone with just their name and business name (or website)
- http://www.reversegenie.com - Reverse phone, email, address, IP and ZIP code search utility
- http://thedatapack.com/tools/blocked-hashtag-search/ - Tool for searching Instagram's blocked or banned hashtags
- http://www.findexif.com - Online photo EXIF metadata reader
- http://www.flickr.com/map/ - Flickr map for searching images by location
- http://karmadecay.com - Reverse image search for Reddit
- https://www.dmvselfservice.ct.gov/LicenseStatusService.aspx - Driver's license verification tool
- http://www.gogloom.com - Internet Relay Chat (online chat room) search engine
- https://itunes.apple.com/us/app/yellow-line-parking/id621661528?mt=8 - AppyParking (previously 'Yellow Line Parking') provides parking information for London parking zones
- http://trends.alltop.com - Search utility for searching top trending news
- http://search.binpad.com - Search engine organizing results into hierarchies categorized by relevance
- http://world.time.com/timelapse/ - See how any location has changed over time using the "explore the world" search feature
- http://www.simpleneat.com - SimpleNeat: Photo sharing made easy and no registration required
- http://mailtester.com/testmail.php - Email address verification tool which identifies mail server
- http://bing.com/saves - Bing Saves (beta) for saving the pages you search
- https://search.nerdydata.com/images - Image Locator: Find out where an image appears on the Web
- http://shouldichangemypassword.com - Check if your password has been compromised

... ALSO OF INTEREST

- How to stay secure when browsing on public Wi-Fi Hotspots http://goo.gl/S7yIds
- "Critical Vulnerability" found: Adobe issues emergency Flash fix http://www.bbc.co.uk/news/technology-26045740
- Facebook at 10: Tips and tools for journalists http://goo.gl/xV9UHK
- Facebook estimates percentage of fake accounts http://goo.gl/RD7HZz
- What is exposed about you and your friends to service operators when you login with Facebook http://craphound.com/images/Be7mB2glcAEZedw.png
- How to (almost) hide your tech gadgets from being tracked http://goo.gl/lt8iOs
- 'It's creepy': Location based marketing is following you, whether you like it or not http://goo.gl/82hzVa

- How To Tell If Your Facebook Has Been Hacked http://goo.gl/4xA4wP
- A Beginner's Guide to Encryption: What It Is and How to Set it Up http://goo.gl/G4DG5n
- 6 Google Search Changes You May Have Missed http://goo.gl/WLqfUC
- Do Self-Destructing Messaging Apps Really Protect Your Privacy? http://goo.gl/ilVsti
- The Internet will look different starting Feb 4th, with new top level domains like '.ninja' and '.sexy' http://goo.gl/lqlo1Y
- 11 high school students expelled for keylogging teachers' computers http://arstechnica.com/tech-policy/2014/01/11-high-school-students-expelled-for-keylogging-teachers-computers/
- 6 Alternatives to Google Alerts http://goo.gl/ZmNCP7
- Here's A New Way Facebook Is Pushing You To Share Your Contact Information http://goo.gl/QMOlRH
- Google's Growing Database of the World's Information, and You http://goo.gl/0qnVIq
- World's first multi-material 3D printer unveiled http://goo.gl/60orN6
- International hacker-for-hire sting results in 11 arrests http://goo.gl/xHcsaK
- The Semantic Web And Data Privacy http://goo.gl/xnmVtE
- Chrome users: Here's how to stop websites from tapping into your microphone http://goo.gl/V3O05s
- As of their latest update, Facebook can read your texts on Android phones http://goo.gl/Csm5ht
- Google tips for students http://goo.gl/5UWiJI
- With these Google search filters now gone, here's how you search discussions, blogs and places http://goo.gl/K9ErU2
- How emerging technologies will dramatically change our world and our work in the next 10 years http://www.theglobeandmail.com/news/world/davos-diary-a-new-sense-of-dread-is-settling-over-the-worlds-elites/article16500943/
- Google Calendar privacy warning http://goo.gl/hCuJjd
- How to secure your LinkedIn account http://goo.gl/H81xH0
- New Google Search feature: More information about websites in search results http://goo.gl/5oqAgw
- Here's a map of the Internet from 1969 ... before the days of hyper-connectivity http://goo.gl/DVL030
- Some of your browser extensions are spying on you.... And here's a list of known culprits http://goo.gl/eAWSs2
- Warning: New disturbing (and illegal) online trend among teens http://goo.gl/MnrUuo
- Google drops a number of search filters http://goo.gl/0HQyb8
- Are you using any of these? - 25 worst passwords of 2013 http://goo.gl/DDLjES
- Apparently scientists identified close to two dozen computers trying to sabotage the Tor privacy network http://goo.gl/Q3UDHx
- How To Spot A Dangerous Email Attachment http://goo.gl/iad5Xk
- Mathematical modeling of MySpace data indicates Facebook may lose 80% of its users in a few years http://arxiv.org/abs/1401.4208
- Not surprisingly, web-savvy kids are bypassing online parental controls http://goo.gl/1cXYvS
- Protect your online privacy with these 15 useful tips http://goo.gl/eHZrJi
- According to Finland Central Bank, Bitcoin is not a currency http://goo.gl/fQP4WI
- Inbox Privacy: Is This The Beginning Of The End? http://goo.gl/oV3B78
- According to Cisco's 2014 Annual Security Report: Java contributed to 91% of security attacks http://goo.gl/UW13yE
- Useful Google Analytics Guide http://goo.gl/AmkoHj
- Selling personal data is a $300 billion business. What can you do to take back control? http://www.fastcoexist.com/3024777/you-will-take-back-your-data
- 'Net Neutrality' explained http://goo.gl/4ORCag
- Big Data For Dummies http://goo.gl/EgKVw3
- Now you can filter your Google Images search by usage rights http://goo.gl/kCoA4K
- Three Facebook privacy settings to be aware of http://goo.gl/AQDm2q
- Five Google 'opt-out' settings to consider http://goo.gl/YpEmmD

- Yandex adds Facebook posts and Big Data to search results http://goo.gl/hA1XVc
- Fascinating read from The New Yorker: “If a Time Traveller Saw a Smartphone” http://www.newyorker.com/online/blogs/elements/2014/01/if-a-time-traveller-saw-a-smartphone.html?mobify=0
- Why your smartphone is telling this Toronto tech firm all about you http://www.theglobeandmail.com/technology/tech-news/why-your-smartphone-is-telling-this-toronto-tech-firm-all-about-you/article16327257/
- Interesting - Unemployment rate apparently correlated to Google searches for “Facebook” http://goo.gl/l6cD6s
- Need-to-know Twitter security and privacy settings http://goo.gl/IPkBBh
- 2014 Futurescape: The Internet of Things http://goo.gl/k7nHM6
- Don’t want Big Brother to see your messages? ‘Confide’ lets you send self-destructing messages http://goo.gl/HDxfBO
- New Brunswick RCMP using social media to catch sexual predators http://goo.gl/R5qOKg
- If you don’t want your LinkedIn profile appearing in Google search results, here’s how to hide it http://goo.gl/yC1l1H
- Cool Google+ app analyzes facial expressions http://goo.gl/p6IGbY
- When Doctors ‘Google’ Their Patients http://goo.gl/SNmc5F