

ALA ANNUAL CONFERENCE & EXHIBITION JUNE 20-25, 2019 WASHINGTON, D.C.

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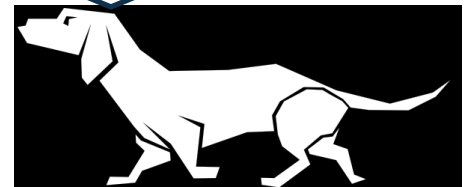
#ALAAC19

#Darkweb
#GiveBrady
money
#WhatAbou
tMatt

CASTING LIGHT ON THE DARK WEB: DISPELLING MYTHS AND USING IT TO PRESERVE YOUR ANONYMITY

Matt Beckstrom | Brady Lund

Hi, I'm Jake, your trusty
tour dog on our journey
through the dark web



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THE DARK WEB
THE SILENCE OF THE INTERNET

STARRING

Matt Beckstrom

Brady Lund

BA, Montana State University
MIS, University of North Texas

Systems Librarian, Helena,
MT



BA, Wichita State University
MLS, Emporia State
University SLIM
PhD Student, ESU SLIM

And Anthony Hopkins as Hannibal Lector

#ALAAC19 #awesomesilenceofthelambsremake

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CASTING LIGHT: AN OVERVIEW FOR YOU

- What is the Dark Web?
- A Brief History
- How Does the Dark Web Work?
- About Dark Web Platforms
- Some Popular Dark Websites
- Can You Use the Dark Web in Libraries?
- How To Use the Dark Web in Your Library



N.S.A. 'Unmaskings' of U.S. Identities Soared Last Year, Report Says

China is using a mobile app to spy on Muslims and punish them for their lawful behaviour, rights group claims

Police are increasingly using social media surveillance tools

The average cost of just one internet identity theft incident is \$3,500.

American companies continue to build surveillance tools that are used to violate human rights. Workers who refuse to comply deserve protections.

The End of Privacy Began in the 1960s

Trump signs internet privacy repeal

How to know who is tracking your Web activities

F.C.C. Repeals Net Neutrality Rules

Snowden: the NSA is 'setting fire to the future of the internet'

Social media has us under surveillance - big business is the new Big Brother

Exploiting Browser Cookies to Bypass HTTPS and Steal Private Information

Mac Malware Steals Browser Cookies, Sensitive Data

Surveillance of Citizens by Government

Trump renews NSA internet surveillance program for six more years

The Internet Is Dying. Repealing Net Neutrality Hastens That Death.

Drumpf signs measure undermining Internet privacy safeguards

Some Headlines

#ALAAC19 #surveillanceisshit

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STOP FOLLOWING ME

The screenshot shows a web browser window with the address bar displaying <https://www.libraryjournal.com>. The page content includes a book advertisement for "Casting Light on the Dark Web" by Matt Beckstrom and Brady Lund, priced at \$32 with free shipping (Amazon Prime). Below the advertisement is a navigation menu with the heading "EXPLORE LJ" and five categories: "Editors' Picks", "All Stories", "Research", "infoDOCKET", and "Most Popular". The "Editors' Picks" category is selected. Underneath, there is a "NEWS" section featuring a red "NewsGuard" logo with the tagline "An every-where to not get false news". The main article is titled "Toledo Lucas County Installs News Literacy Browser Extension" by Matt Enis, dated Apr 08, 2019. The article text states: "As part of its broader information literacy efforts, Toledo Lucas County Public Library recently installed [NewsGuard](#), a free web extension, in the Firefox, Chrome, and Edge browsers on all of the library's 750+ public and staff computers."

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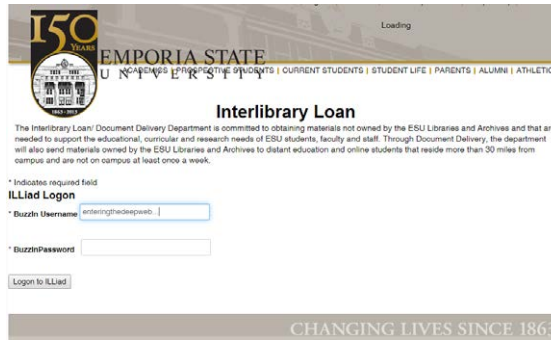
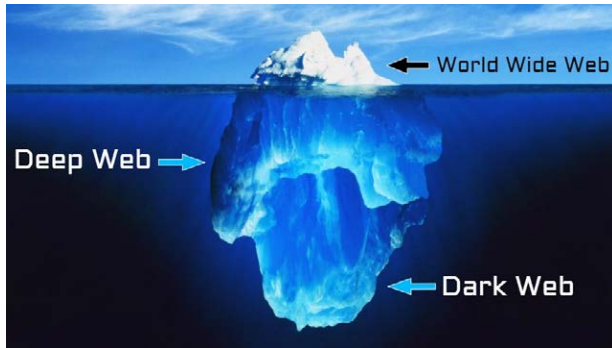


WHAT IS THE DARK WEB?

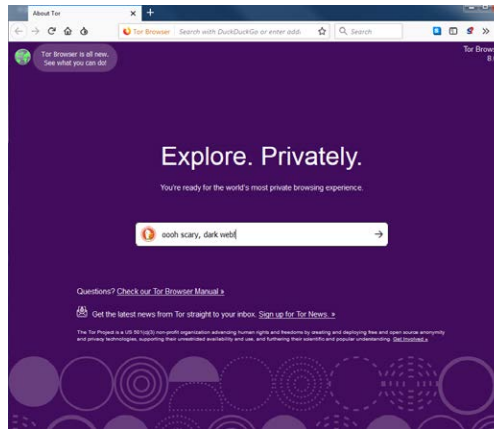
Etymology?

The term dark web does not necessarily mean a place where illegal activities occur, or dark deeds are performed. The dark web is called dark for the same reason the night is called dark: you cannot see what all is there. Whereas on the mainstream Internet anyone with a computer and a web browser can visit Google and search the entirety of knowledge indexed within it, the dark web is hidden.

Obligatory Iceberg Analogy



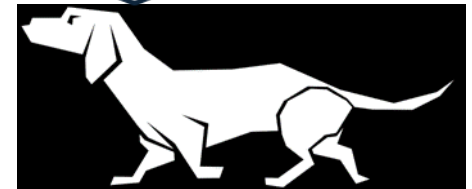
Above: An entry to the deep web
Below: An entry to the dark web



The Dark Web and Deep Web Are NOT the Same Thing!

- Surface Web/Clear Net: What we normally call "the Internet." Webpages we interact with on a regular browser (e.g., Internet Explorer, Google Chrome) that do not require special permissions or logins to access.
- Deep Web: Webpages that exist on the World Wide Web but are hidden behind permissions or log-in pages (authentication) (e.g., the vast majority of library/ILS webpages)
- Dark Web: Describes a collective group of web pages that can only be accessed using special browsers/networks.

The dark web is part of the deep web – but not vice versa. It's like rectangles and squares...



A BRIEF HISTORY OF THE DARK WEB (AND THE INTERNET)

The Birth of the Internet and Dark Web: A Timeline

October 1969: First two ARPANET nodes are connected between UCLA and SRI International in Menlo Park (San Francisco), California

December 1971: Fifteen sites across the United States are connected via ARPANET

Fall 1973: Networks connect to several major research universities in United Kingdom

July 1979: Internet Architecture Board, which provides oversight to the development of the Internet, is established

March 1985: Symbolics.com, the first .com domain name, is registered by Symbolics, Inc.

November 1985: America Online (AOL) services launch

November 1989: The World is established as the first major commercial Internet service provider in the United States

December 1990: Tim Berners-Lee releases the first web browser, called WorldWideWeb, and the first website

September 1993: W3Catalog, the first Internet search engine, is made available to the public

July 1995: Amazon.com opens to the public as an online bookseller

September 1995: Ebay.com launches

September 1998: Google.com launches

March 2000: Initial launch of Freenet anonymous web project

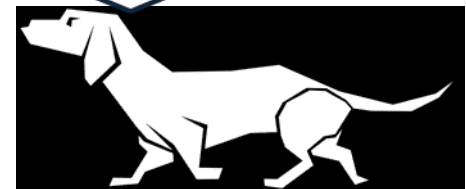
January 2001: Wikipedia.org launches

September 2002: Tor Project is released for public use

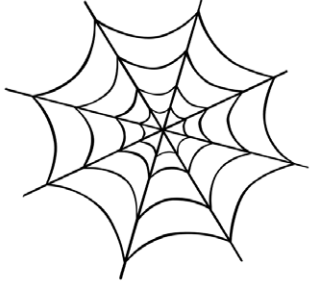
August 2003: Start of development of I2P anonymous web platform

February 2004: Facebook.com launches

Most of the telecommunications tech. we enjoy today was originally developed to benefit one of America's many wars



Freenet



Why Onions?

If you had ever watched Shrek, you would know that onions have layers and ogres have layers... well so does Tor. Of course, in the case of Tor, the layers are layers of encryption.

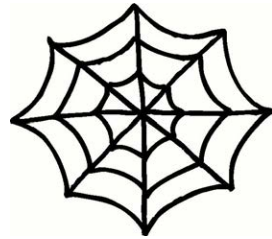


Jeri the Spider

DARK WEB PLATFORMS

- Tor (The Onion Router) – This is the most popular browser and the one that looks most similar to a regular web browser (it is built within a Firefox shell)
- I2P (Invisible Internet Project) – Probably the second most popular platform. More limited in its capabilities and is accessed through a normal web browser by changing network settings and using special .i2p websites
- Freenet (Free Internet Project) – Accessed via a separate browser and has more in common with Internet circa 1998 than 2019 (this is intentional, as many of the shiny and “interactive” features websites have today compromise privacy). Any user can create a Freenet “site,” which is essentially a blog space.

I2P



TOR



HOW DOES THE DARK WEB WORK

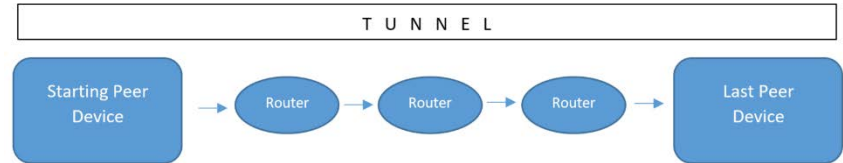
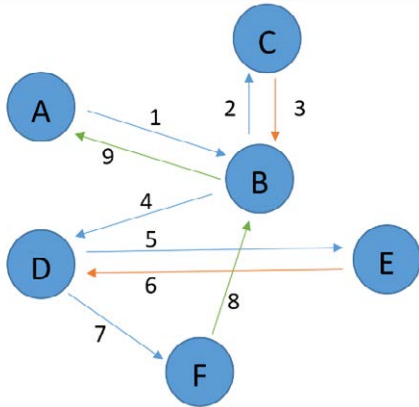
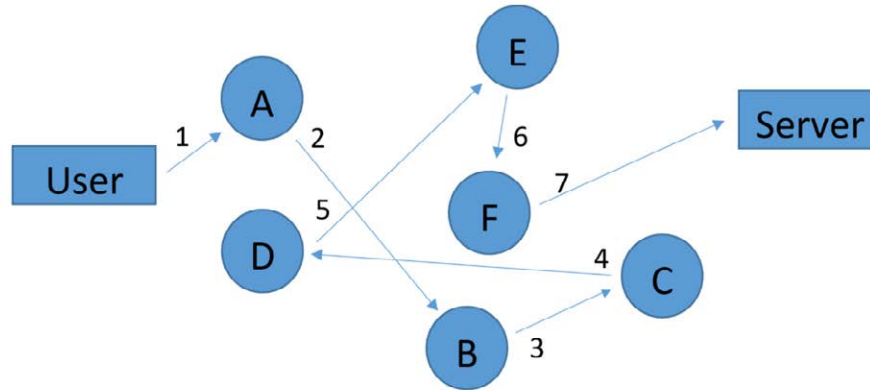


Figure 1: I2P Tunnel



Autographed copies of these images available in the gift shop



I2P

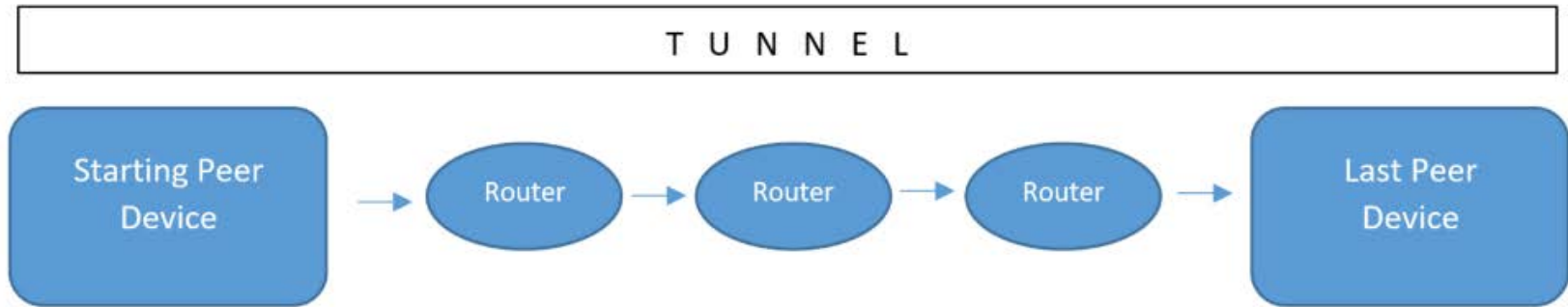


Figure 1: I2P Tunnel

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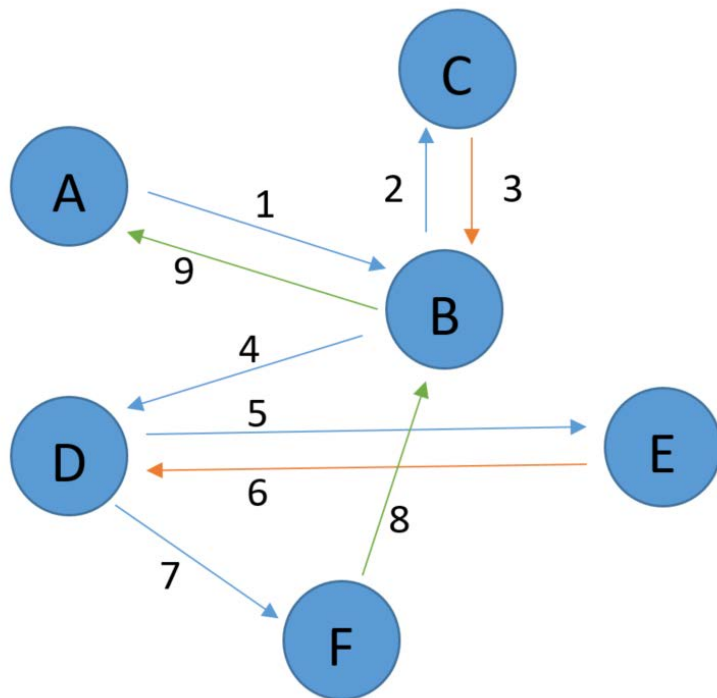
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#BringBradyonyourpodcasts

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FREENET



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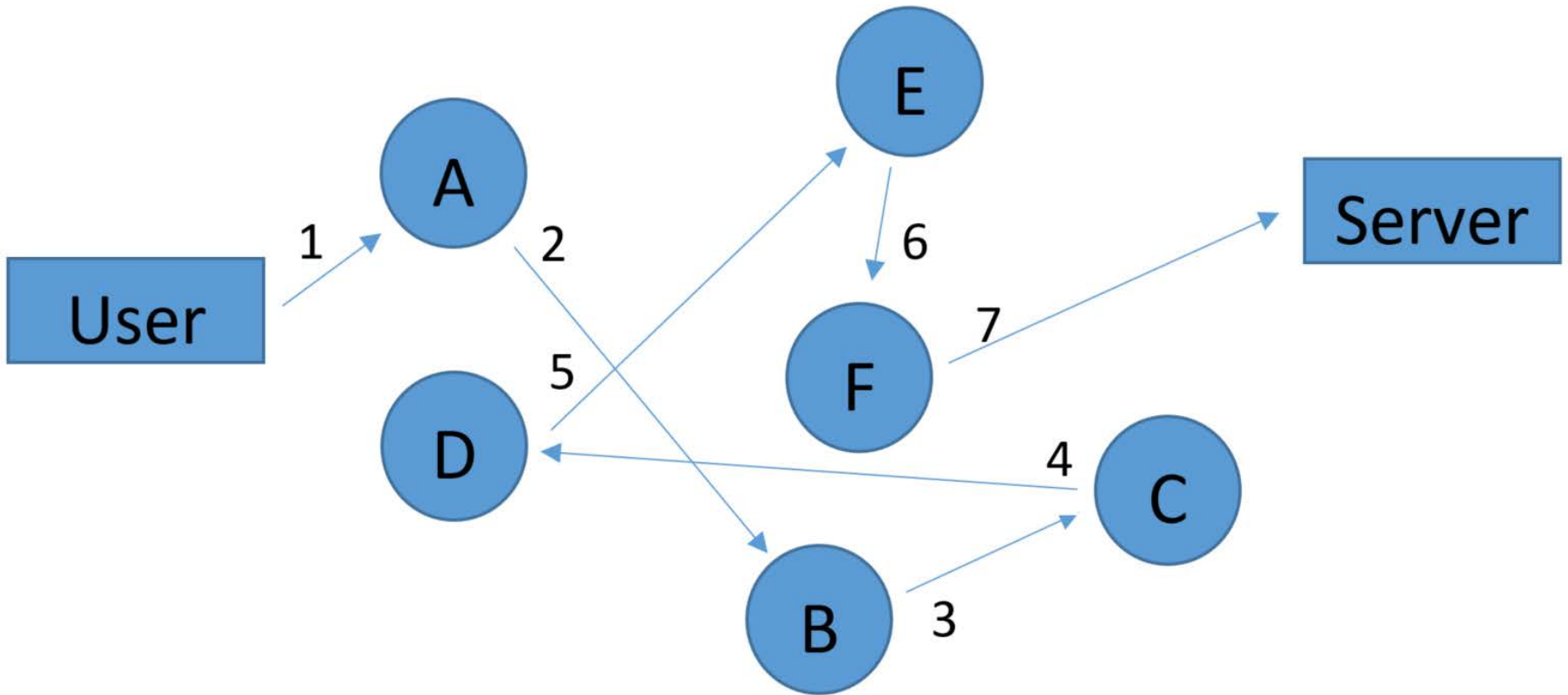
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TOR



MYTHBUSTERS: LITA EDITION

Here are some myths:

1. The Dark Web Has No Value to “Upstanding” Citizens
2. It is Illegal to Use the Dark Web
3. I Need to Buy Special Hardware to Use the Dark Web

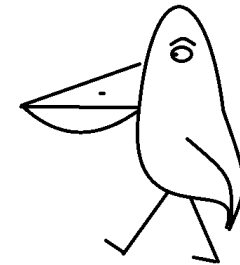
Here are a few reality nuggets:

1. The Dark Web Offers Privacy From Those Who Track Your Online Behavior Without Your Permission (Everyone Should Want That)
2. In the United States, Using the Dark Web Is Definitely Not a Crime; We Use It All The Time And We Are Definitely Not Criminals (...?).
3. Nope, Just Download Free Software From a Platform’s Website – It Takes About Five Minutes



HOW TO ACCESS THE DARK WEB

- Visit the sites and download the software:
 - <https://www.torproject.org>
 - <https://geti2p.net/en/>
 - <https://freenetproject.org>
- Specific instructions for installation are available on the websites (or in our book). NOTE that I2P requires you to modify the network settings in a regular web browser in order to use. The download alone is not sufficient to access I2P (Tor or Freenet is probably easier for just the curious, novice user).



POPULAR DARK WEBSITES

Tor

(Site addresses can sometimes change quickly, dark web wiki can help track most recent addresses)

- The New York Times
 - Nytimes3xbfgragh.onion/
- Facebook
 - Facebookcorewwi.onion/
- Sci-Hub
 - Scihub22266oqcxt.onion/
- Onion Forum 2.0
 - 2gxxzwnj52jutais.onion/
- Tor Archive
 - Archivecaslytosk.onion/
- Additionally, any surface (regular) websites can be accessed through Tor, with a level of added security

I2P

- I2P Forum
 - <http://forum.i2p>
- Library Genesis
 - <http://p4swjett52gpafbdkxwktfcwqzlo44k2ve6tzduhmmc2hbvj6nq.b32.i2p>

Freenet

- Freenet Message System
 - <http://localhost:8888/USK@0nprnMrqZNKRCRoGojZV93UNHCMN-6U3rRSAmP6jNLE,~BG-edFtdCC1cSH4O3BWdeIYa8Sw5DfyrSV-TKdO5ec,AQACAAE/fms/148/>

(yes, really, all that gibberish)

My friend Scruff wanted me to remind you that, while not all of the dark web is illegal, sites like Silk Road are and should be avoided



SOME ILLEGAL STUFF TO SATISFY THE THRILL-SEEKERS

- Silk Road
 - The “evil” dark web as it is portrayed in media and film.
 - The illegal ebay
 - Facilitated billions of dollars of illegal drug and weapons exchanges
 - Shut down by FBI and Interpol in late 2013. Most legitimate illegal trade sites today are small and serve a specific cartel
 - FBI can still use traditional detective techniques to identify the owners of illicit dark websites and shut them down
- Pirate Bay
 - Share-site that allows for the distribution of copyrighted content
 - Can be accessed on surface web, but most users access via dark web to reduce chance of detection
 - Pirate Bay was the subject of a major Interpol raid in 2015 that shuttered the site. It has since reopened for “business.”

Total Value of Silk Road Transactions (2011–2013): 9,519,664 Bitcoins

Also a cautionary tale on investing in Bitcoin

Month and Year	Value of Bitcoin	Value of Silk Road’s Total Transactions Based on Bitcoin Exchange Rates	Percent Change (+/-)
September 2010	\$0.12	\$1 Million	-
February 2011	\$1	\$10 Million	733%
July 2011	\$30	\$285 Million	2900%
December 2011	\$3	\$20 Million	-90%
May 2012	\$5	\$48 Million	66%
October 2012	\$9	\$86 Million	80%
February 2013	\$40	\$381 Million	344%
March 2013	\$115	\$1.1 Billion	188%
April 2013	\$250	\$2.4 Billion	117%
May 2013	\$140	\$1.3 Billion	-44%
June 2013	\$100	\$952 Million	-29%
July 2013	\$80	\$752 Million	-20%
August 2013	\$90	\$857 Million	13%
September 2013	\$120	\$1.2 Billion	33%
October 2013	\$120	\$1.2 Billion	-
Early November 2013	\$200	\$1.9 Billion	67%
Late November 2013	\$400	\$3.8 Billion	100%
Early December 2013	\$500	\$4.8 Billion	25%
Mid December 2013	\$1,200	\$11.4 Billion	140%
Late December 2013	\$600	\$5.7 Billion	-50%
January 2014	\$800	\$7.6 Billion	33%
February 2014	\$700	\$6.7 Billion	-13%
Peak 2015	\$500	\$4.8 Billion	-40%
Peak 2016	\$800	\$7.6 Billion	60%
Peak 2017	\$18,000	\$171.4 Billion	2150%
Peak 2018	\$10,000	\$95.2 Billion	-44%
End of 2018	\$3,500	\$33.3 Billion	-65%*

In reality, a lot of the “shocking” sites that are portrayed in media, film, etc. are never actually operational, but are run for a laugh. This is not true of ALL of these sites, however.

The vast majority (by number of cases) of illegal activity is actually copyright infringement.



Non-copyright free image. Ooooooh



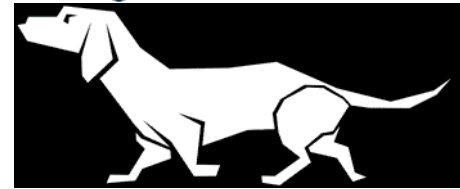
CAN YOU USE THE DARK WEB IN LIBRARIES

Legal disclaimer: We are not lawmakers, lawyers or the director or library board of your library. We can only speak broadly on the topic.

- In general, yes. The answer is a bit complicated by e-rate funding for public libraries. The dark web probably cannot be used by patrons under the age of 18; however, it could be enabled for adult patrons with “bonafide” reasons for using the platform.
- It is possible to enable filters in Tor (using the add-ons for the Firefox shell it uses). This affects functionality and compromises privacy to an extent.
- While sites like SciHub and Library Genesis are great in theory (don’t tell our publisher we said that), the content breaches copyright for journal and book publishers; so, from a legal perspective, we would not advise using it as an alternative information resource.
- If patrons bring their own devices – no problem at all?

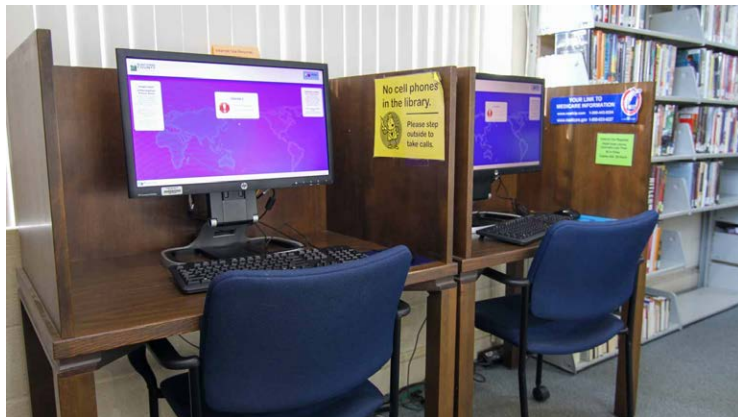


If possible, the best way to be sure that providing access to the dark web does not infringe on state or local laws is to contact an attorney.



HOW TO USE DARK WEB IN LIBRARIES

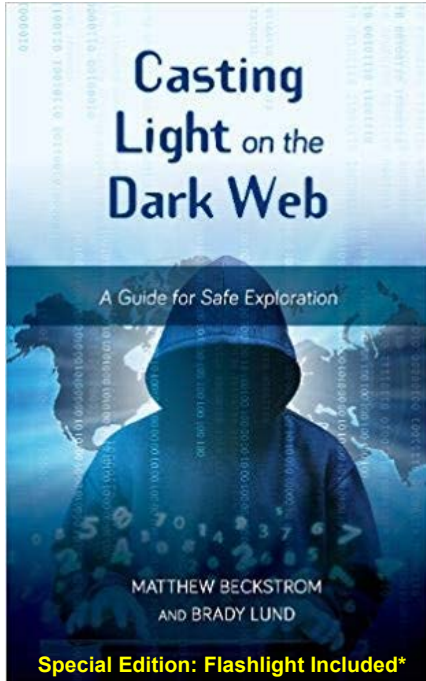
No to cell phones but yes to dark web



- In public libraries: Have adult-only terminals with Tor downloaded for use (Or all terminals in some cases)
- Use the dark web as an educational tool
- Become a part of the dark web
- Obviously, Don't trust college students to use the Dark Web responsibly 😊! But honestly, most universities should have no major problems.
- School Libraries: Probably not possible to use dark web – but you can still use it yourself and support the platform!



A LITTLE ADVERT



*Flashlight is not actually included.

Hardcover
\$32.00 ✓prime

Contents

- 1 – What is the Dark Web?
- 2 – History of the Dark Web
- 3 – How It Works
- 4 – Distinguishing Fact From Fiction
- 5 – How to Access the Dark Web
- 6 – How to Browse Using the Dark Web
- 7 – Addressing Legal and Ethical Concerns
- 8 – Research and Advocacy on the Dark Web
- 9 – Reaping the Rewards of the Dark Web

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Grab a copy of the promotional flyer at:

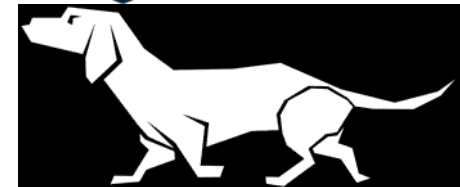
“Quick, informational read, written in a conversational style with a wit and humor sprinkled throughout”

– Brady Lund

“It’s okay.”

-- Jake

One percent of all proceeds goes to feeding my real-life counterpart!



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AN EXCERPT: STORY OF INTERNET PAST

- In 1996 Debora Spar and Jeffrey Bussgang published an article in the Harvard Business Review entitled Ruling the Net. Note that the Internet was only available for public use starting in 1990, and only about 11% of the United States population had access to the internet in 1996. This was a year before Google, four years before Wikipedia, and Amazon was merely an online bookseller struggling to make a profit. The Internet was an amorphous spattering of what it is today. It was, in many regards, a Wild West. Few people used it, many had little conception of what it was, and there was little to suggest how powerful and useful it would become to just about every person in the developing and developed world. In fact, many major organizations, such as the Smithsonian, Walmart, and virtually the entire Music Recording Industry initially refused to promote their products online, for fear that there would be little retribution against those who infringed on copyright. However, as the authors note:
- “In surveying this frontier, it is important to realize that the current lack of rules does not necessarily mean that governments will send in the cavalry or that companies will walk away in despair, leaving the Internet to the hackers and the chat lines. Instead, it simply means that companies need to think carefully before making any headlong leaps into cyberspace.”
- Spar and Bussgang recognized the potential in the internet to connect people, provide comfort, and increase business, and argued that the absence of the realization of this growth came from a lack of rules. They suggested that, even if governments could not enforce laws, there were ways to create communities online that could enforce rules. “What they (companies and users) need, in short, is an entity to transform the anonymity and anarchy of the Internet in to a market with identifiable customers and recordable transactions.” Note, again, that this article is discussing the Internet – the World Wide Web – circa 1996. But it sounds very similar to the arguments made about the dark web throughout this book, doesn't it? What changed, and what impact can this have on your dark web experience?
- Simply enough, investment.



THANKS – CONTACT US!

PLEASE! WE THRIVE ON PRAISE!

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- Emporia State University
 - School of Library and Information Management (Seriously, Don't You Want To Be A Student Here?)



Jake

#Thisisthebestpresentationeverandthereisabsolutelynoreason to go to any other because this has blown my mind and changed my whole outlook on life and librarianship and I am definitely going to pre-order the book today at [amazon.com/gp/product/1538120933?](https://www.amazon.com/gp/product/1538120933?pf_rd_p=f3acc539-5d5f-49a3-89ea-768a917d5900&pf_rd_r=9Q29MHNJ8BEZNX8T2G2)

[pf_rd_p=f3acc539-5d5f-49a3-89ea-768a917d5900&pf_rd_r=9Q29MHNJ8BEZNX8T2G2](https://www.amazon.com/gp/product/1538120933?pf_rd_p=f3acc539-5d5f-49a3-89ea-768a917d5900&pf_rd_r=9Q29MHNJ8BEZNX8T2G2)

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