Search History Privacy Through Obfuscation: Introducing the Haystack Project

Toorcamp 2009

Obligatory Biography

- From Tempe, AZ USA: Home of UAT, ASU, First Solar, and Four Peaks Brewery
  - Tempe is NOT part of Phoenix, we have our own downtown and everything!
- Built a Duck Hunt arcade box for Shmoocon in 2007
- Spoke at ABLEconf08 on Linux gaming in portable devices
- None of this is related to anything
  - Stop taking notes, it won't be on the exam; Its not even on Wikipedia!

What

- Haystack Project is an initiative to create tools that will help obfuscate your search history
  - Web-based search tool
  - Browser (Firefox) plugin
- The core app (HayProj) behind this generates search terms that look like what you'd type in yourself, like hiding a needle in a haystack
- An alternative to the trust-dependent approach of searching by proxy (e.g. blackboxsearch.com)

!What

- MIT's Haystack Project
  - PROTIP: Google potential names for open source projects before buying domain names
  - Our developers went to DeVry or are in internet high school, oddly enough—don't tell them I told that to everyone. ;)
- Tor, or a replacement for Tor
- A search engine
- Something BILLY MAYS-guaranteed to hide your tracks
- Backdoor'd

Why

- Privacy is Serious Business
- I got bored when I was laid off last year
- Desire to contribute to the open source community
- Coding in pure JavaScript == character building?
- Because it can be done, or at least worth trying to do

FORENSICS BINGO!

FORENSICS BINGO!

How

- Whitepaper explains everything, but its boring despite the blurry graphs and Björk references

DEMO

When

- Web Search is LIVE!

    - In English only, for now

    - Using Google only, for now

    - Using Google Hot Trends only, for now

- Firefox plugin

    - Limited alpha release around late July, maybe, right around Defcon

- Dillo plugin

    - When Tuna decides to write it WINK WINK

WANT!

- DEVELOPERS DEVELOPERS DEVELOPERS
  - Giant list of TODO's at http://www.haystackproject.org/developers.htm
  - Contribute code, work on interesting problems
  - Contribute lots of code and get an @haystackproject.org email address
    - Impress your friends
    - Impress the [ladies | dudes]
- L10N and Internationalization
  - Translation of site content
  - Internationalization of term generation sources

Obligatory Credits

- Martin Eberhard, for the initial core idea (and for making electric cars look sexy)

- Christopher Blizzard (@chrisblizzard) of the Mozilla Foundation, for letting me badger him at SCaLE with my n00b extension developer questions

- Will (@willbradley) for lending his regex skillz

- Various others for ideas on HayProj's design

- Toorcamp (@toorcamp) for accepting my talk after CanSecWest gave me the cold shoulder

?