Verification & Debunking

MOOC Week 3
Principles of Social Media Verification

Provenance: Are you looking at the original piece of content?

Source: who captured the content?

Date: when was the content captured?

Location: where was the content captured?

Credit: Claire Wardle, First Draft
Images & Video
Verifying Photos & Video

• Find the source and get them to send you the original from their phone/camera

• Reference locations against maps and existing images from the area

• Check:
  – Clothes, buildings, language, license plates, vehicles, etc.

• Examine weather reports, shadows to confirm conditions shown fit date and time
Reverse Image Search

Check history of photo with reverse image search: TinEye, Google Images
## Basic Image Information

<table>
<thead>
<tr>
<th>Camera</th>
<th>Apple iPhone 4S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens</td>
<td>4.3 mm</td>
</tr>
<tr>
<td>Exposure</td>
<td>Auto exposure, Program AE, 1/20 sec, f/2.4, ISO 200</td>
</tr>
<tr>
<td>Flash</td>
<td>Auto, Did not fire</td>
</tr>
<tr>
<td>Date</td>
<td>February 20, 2013 1:04:48PM (timezone not specified)</td>
</tr>
<tr>
<td></td>
<td>(22 hours, 41 minutes, 43 seconds ago, assuming image timezone of 5 hours behind GMT)</td>
</tr>
<tr>
<td>Location</td>
<td>Latitude/longitude: 40° 45' 39&quot; North, 73° 58' 39&quot; West</td>
</tr>
<tr>
<td></td>
<td>(40.760833, -73.977500)</td>
</tr>
<tr>
<td>Photos on Jeffrey's blog that are near this location.</td>
<td></td>
</tr>
<tr>
<td>Map via embedded coordinates at: Google, Yahoo, WikiMapia, OpenStreetMap, Bing</td>
<td></td>
</tr>
<tr>
<td>Altitude</td>
<td>66.49953402 m</td>
</tr>
<tr>
<td>Timezone guess from earthtools.org: 5 hours behind GMT</td>
<td></td>
</tr>
<tr>
<td>File</td>
<td><strong>2,448 x 3,264</strong> JPEG (8.0 megapixels)</td>
</tr>
<tr>
<td></td>
<td>2,571,446 bytes (2.5 megabytes) Image compression: 89%</td>
</tr>
</tbody>
</table>

**Color Encoding:** Color space tagged as sRGB, without an embedded color profile. Windows and Mac browsers and apps treat the colors randomly.

Images for the web are most widely viewable when in the sRGB color space and with an embedded color profile. See my Introduction to Digital-Image Color Spaces for more information.

Check exif info: [regex.info/exif.cgi](regex.info/exif.cgi)
Florida c'mon man
About 1,310 results (0.60 seconds)

Image size:
900 × 1200

Find other sizes of this image:
All sizes - Small - Medium - Large

Best guess for this image: hobby

Hobby Lobby Arts & Crafts Stores
www.hobbylobby.com/
Hobby Lobby arts and crafts stores offer the best in project, party and home supplies. Visit us in person or online for a wide selection of products!

Hobby - Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/Hobby
A hobby is a regular activity that is done for enjoyment, typically during one's leisure time. Hobbies can include collecting themed items and objects, engaging in ...
### Basic Image Information

**Target file:** IMG_20160906_134236.jpg

<table>
<thead>
<tr>
<th>Camera:</th>
<th>Zte Z970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens:</td>
<td>3.7 mm</td>
</tr>
<tr>
<td>Exposure:</td>
<td>1/25 sec, f/2.14, ISO 100</td>
</tr>
<tr>
<td>Flash:</td>
<td>Off, Did not fire</td>
</tr>
<tr>
<td>Date:</td>
<td>September 6, 2016 1:42:36PM (timezone not specified)</td>
</tr>
<tr>
<td></td>
<td>(6 days, 3 hours, 47 minutes, 50 seconds ago, assuming image timezone of US Pacific)</td>
</tr>
<tr>
<td>File:</td>
<td>2,448 x 3,264 JPEG (8.0 megapixels)</td>
</tr>
<tr>
<td></td>
<td>3,164,210 bytes (3.0 megabytes)</td>
</tr>
<tr>
<td>Color Encoding:</td>
<td><strong>WARNING:</strong> Color space tagged as sRGB, without an embedded color profile. Windows and Mac browsers and apps treat the colors randomly.</td>
</tr>
<tr>
<td></td>
<td>Images for the web are most widely viewable when in the sRGB color space and with an embedded color profile. See my Introduction to Digital-Image Color Spaces for more information.</td>
</tr>
</tbody>
</table>

**Extracted 240 x 320 22-kilobyte “Composite:ThumbnailImage”**

Displayed here at 100% (1/10 the area of the original)

Click image to isolate; click this text to show histogram
## Basic Image Information

**Target file:** IMG_20160906_134236.jpg

<table>
<thead>
<tr>
<th><strong>Camera:</strong></th>
<th>Zte Z970</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lens:</strong></td>
<td>3.7 mm</td>
</tr>
<tr>
<td><strong>Exposure:</strong></td>
<td>$1/25$ sec, f/2.14, ISO 100</td>
</tr>
<tr>
<td><strong>Flash:</strong></td>
<td>Off, Did not fire</td>
</tr>
<tr>
<td><strong>Date:</strong></td>
<td>September 6, 2016 1:42:36PM (timezone not specified) (6 days, 3 hours, 47 minutes, 50 seconds ago, assuming image timezone of UTC)</td>
</tr>
<tr>
<td><strong>File:</strong></td>
<td>2,448 x 3,264 JPEG (8.0 megapixels) 3,164,210 bytes (3.0 megabytes)</td>
</tr>
</tbody>
</table>

**Color Encoding:**

**WARNING:** Color space tagged as sRGB, without an embedded profile. Windows and Mac browsers and apps treat the color randomly.

Images for the web are most widely viewable when in the sRGB color space with an embedded color profile. See my Introduction to Digital-Image Color Space information.
Install This!

InVID Browser Extension for Chrome

Video contextual verification

Copy and paste a Youtube or Facebook url

Submit
Metadata

Image URL in jpg/jpeg or video URL in mp4/m4v format

Local file

- Image
- Video

Submit
Video contextual verification

https://www.youtube.com/watch?v=hz-oPSJZ8g

**Video:**

<table>
<thead>
<tr>
<th>Video title</th>
<th>Gaza destroys thousands of Snickers bars after mass recall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video description</td>
<td>Authorities in Gaza say they have destroyed 15 tonnes of chocolate in response to last month's mass recall by the manufacturer. Inspectors from the economy ministry observed the burning of thousands of bars of Snickers in the south of the Gaza Strip. Confectionery giant Mars, the maker of Snickers, recalled Mars bars and Snickers from 55 countries last month. The move came after bits of plastic were found in a product. Other brands on the recall list are Milky Way Minis and Miniatures as well... READ MORE: <a href="http://www.euronews.com/2016/03/10/gaza-destroys-thousands-of-snickers-bars-after-mass-recall">http://www.euronews.com/2016/03/10/gaza-destroys-thousands-of-snickers-bars-after-mass-recall</a> What are the top stories today? Click to watch: <a href="https://www.youtube.com/plan">https://www.youtube.com/plan</a>...</td>
</tr>
</tbody>
</table>
Twitter advanced search

Keyword or #

From (Twitter account name)

Filter (e.g. safe, media, retweets, native_video, periscope, vine, images, twimg or links)

Language (e.g. en, fr, de, es, ru, ja, zh...)

Geocode (e.g. -22.912214,-43.230182,1km or -22.912214,-43.230182,1mi)

Near (city name)  Within (e.g. 15mi or 15km)

Since

Until

Local time  GMT

Submit
YouTube Tip

Copy the video’s ID:

Search Google or Twitter with it to see who is writing about it, or sharing it:

P.S. It works for Instagram too!
Analyzing Social Media Accounts
Analyzing a Social Media Account

• Always think about the network
  – Friends, followers, conversations, retweets, reshares.
  – What do they usually tweet/post about?
  – Where do they say they are?

• Check when account was created
  – Be suspicious of newer accounts

• See if you can find other accounts online (FB/Twitter/Insta/LinkedIn etc.) with the same name/username.

• Contact them!
Finding Their Other Accounts
Analyzing Facebook Accounts

Custom Facebook Tools

Search Target Profile:
- Email Address
- FB User Name
- Facebook User Number
- Name
- Year
- Other

Locate Target Profile:
- People named...
- People who work at...
- People who worked at...
- People who live in...
- People who lived in...
- School attended...
- People who visited...
- People who live in... birth year...
- People who worked at... and work at...
- People named... who live in...
- People named... who worked at...
- People named... who live in... between age...
- People named... who worked at...

Multiple Variables:
- Name
- Search
- Gender Search:

https://inteltechniques.com/menu.html
Custom Facebook Tools

Search Target Profile:

- Email Address
- +10 Digit Cell
- silverman craig

- 10000675881347
- Facebook User Number

GO (Account by Email)
GO (Account by Cell)
GO (Displays User Number)
GO (Populate All)
GO (Places Visited)
GO (Recent Places Visited)
GO (Places Checked-In)
GO (Places Liked)
GO (Pages Liked)
GO (Photos By User)
GO (Photos Liked)
GO (Photos Of Tagged)
GO (Photo Comments)
GO (Apps Used)
GO (Videos)
GO (Videos Of User)
Twitter Analysis

100 Tweets
We looked inside some of the tweets by @CraigSilverman and here's what we found interesting.

INSIDE A HUNDRED TWEETS
- Replies: 24 / 100
- Tweets with @mentions: 79 / 100
- Tweets with hashtags: 5 / 100
- Retweets: 52 / 100 were retweets by @CraigSilverman
- Tweets with links: 37 / 100
- Tweets with media: 8 / 100
- Twitter clients usage: Twitter for iPhone, TweetDeck, Twitter Web Client, Nuzzel

Mentions are good but replies means they really talk to people. 100/100 links probably means the account is automated or semi-automated. Media includes photos, videos, etc. Hover over the links to see their usage.

Attitude
People tend to use emoticons or emojis in their tweets. Here's how @CraigSilverman uses them.

HAPPY TWEETS VS. SAD TWEETS
- 😊 0 / 0 incl. similar happy faces
- 😞 0 / 0 incl. similar sad faces

Time
This bar chart shows the activity time based on the latest tweets. Careful about timezones.

HUMANS TEND TO SLEEP

NOTE: Timezone shown is UTC+0. Current UTC time is 11:46:22 +0000. The world clock can help you compare different timezones. If the tweets are spread evenly across the full 24 hour span, chances are that it's been set up to tweet automatically.
Twitter advanced search

Keyword or #

From (Twitter account name)

Filter (e.g. safe, media, retweets, native_video, periscope, vine, images, twimg or links)

Language (e.g. en, fr, de, es, ru, ja, zh...)

Geocode (e.g. -22.912214,-43.230182,1km or -22.912214,-43.230182,1mi)

Near (city name) Within (e.g. 15mi or 15km)

Since

Until

Local time □ GMT □

Submit
Finding People

Advanced People Search

ThatsThem’s advanced people search effectively bypasses our parsing algorithms thus eliminating errors in our interpretation of your query. In other words, you can tell us **exactly** who you are looking for! Unlike a normal ThatsThem search, the advanced search results page has extra filters added to ensure that your results are as accurate as possible.

<table>
<thead>
<tr>
<th>First Name</th>
<th>Middle Name</th>
<th>Last Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ex: Bob</td>
<td>ex: Michell</td>
<td>ex: Jones</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Email Address</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>ex: <a href="mailto:me@mine.com">me@mine.com</a></td>
<td>ex: 818-555-1234</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Street Address</th>
<th>State</th>
<th>City</th>
<th>ZIP Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ex: 123 Pine Street</td>
<td></td>
<td>ex: Los Angeles</td>
<td>ex: 91923</td>
</tr>
</tbody>
</table>
LinkedIn
Be Stealth About It

Profile viewing options
Choose whether you’re visible or viewing in private mode

Select what others see when you’ve viewed their profile

Your name and headline

Craig Silverman
Entrepreneurial journalist, writer and author
Toronto, Ontario, Canada | Writing and Editing

Private profile characteristics

University Professor / Lecturer at The Poynter Institute

Private mode

Anonymous LinkedIn Member
Investigating Websites
Finding A Website Owner

[Image of a search engine interface]

DomainBigData
Search any domain, ip, registrant name / email

ALL DOMAIN NAMES + IP + WHOIS

are in domainbigdata.com

search examples:
Google.com
dns-admin@google.com
Google Inc
66.249.65.67

Search
Domain:
- Domain: newsweek.com
- Words in: newsweek
- Title: Newsweek - News, Analysis, Politics, Business, Technology
- Date creation: 1994-05-16
- Web age: 23 years and 10 months
- IP Address: 54.164.207.89
- IP Geolocation: United States, Virginia, Ashburn

Registrant:
- Name: Domain Administrator
- Organization: Newsweek LLC
- Email: domains@ibtimes.com
- Address: 7 Hanover Square, Floor 5
- City: New York
- State: NY
- Country: United States
- Phone: +1.6468677100
- Fax: +1.6466228146
- Private: yes, contact registrar for more details
## Domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>newsweek.com</th>
</tr>
</thead>
<tbody>
<tr>
<td>Words in</td>
<td>newsweek</td>
</tr>
<tr>
<td>Title</td>
<td>Newsweek - News, Analysis, Politics, Business, Technology</td>
</tr>
<tr>
<td>Date creation</td>
<td>1994-05-16</td>
</tr>
<tr>
<td>Web age</td>
<td>23 years and 10 months</td>
</tr>
<tr>
<td>IP Address</td>
<td>54.164.207.89</td>
</tr>
<tr>
<td>IP Geolocation</td>
<td>United States, Virginia, Ashburn</td>
</tr>
</tbody>
</table>

## Registrant

<table>
<thead>
<tr>
<th>Name</th>
<th>Domain Administrator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>Newsweek Llc</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:domains@ibtimes.com">domains@ibtimes.com</a></td>
</tr>
<tr>
<td>Address</td>
<td>7 Hanover Square, Floor 5, map</td>
</tr>
<tr>
<td>City</td>
<td>New York</td>
</tr>
<tr>
<td>State</td>
<td>NY</td>
</tr>
<tr>
<td>Country</td>
<td>United States</td>
</tr>
<tr>
<td>Phone</td>
<td>+1.6468677100</td>
</tr>
<tr>
<td>Fax</td>
<td>+1.6466228146</td>
</tr>
<tr>
<td>Private</td>
<td>yes, contact registrar for more details</td>
</tr>
<tr>
<td>Domain</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-------</td>
</tr>
<tr>
<td>Domain</td>
<td>newsweek.com</td>
</tr>
<tr>
<td>Words in</td>
<td>newsweek</td>
</tr>
<tr>
<td>Title</td>
<td>Newsweek - News, Analysis, Politics, Business, Technology</td>
</tr>
<tr>
<td>Date creation</td>
<td>1994-05-16</td>
</tr>
<tr>
<td>Web age</td>
<td>23 years and 10 months</td>
</tr>
<tr>
<td>IP Address</td>
<td>54.164.207.89</td>
</tr>
<tr>
<td>IP Geolocation</td>
<td>United States, Virginia, Ashburn</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Registrant</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Domain Administrator</td>
</tr>
<tr>
<td>Organization</td>
<td>Newsweek Llc</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:domains@ibtimes.com">domains@ibtimes.com</a></td>
</tr>
<tr>
<td>Address</td>
<td>7 Hanover Square, Floor 5, map</td>
</tr>
<tr>
<td>City</td>
<td>New York</td>
</tr>
<tr>
<td>State</td>
<td>NY</td>
</tr>
<tr>
<td>Country</td>
<td>United States</td>
</tr>
<tr>
<td>Phone</td>
<td>+1.6468677100</td>
</tr>
<tr>
<td>Fax</td>
<td>+1.6466228146</td>
</tr>
<tr>
<td>Private</td>
<td>yes, contact registrar for more details</td>
</tr>
</tbody>
</table>
Domain Name: newsweek.com
Registry Domain ID: 5168497_DOMAIN_COM-VRSN
Registrar WHOIS Server: whois.markmonitor.com
Registrar URL: http://www.markmonitor.com
Updated Date: 2016-04-06T04:00:18-0700
Creation Date: 1994-05-16T21:00:00-0700
Registrar Registration Expiration Date: 2022-05-17T21:00:00-0700
Registrar: MarkMonitor, Inc.
Registrar IANA ID: 292
Registrar Abuse Contact Email: abusecomplaints(at)markmonitor.com
Registrar Abuse Contact Phone: +1.2083895740
Domain Status: clientUpdateProhibited (https://www.icann.org/epp#clientUpdateProhibited)
Domain Status: clientTransferProhibited (https://www.icann.org/epp#clientTransferProhibited)
Domain Status: clientDeleteProhibited (https://www.icann.org/epp#clientDeleteProhibited)
Registry Registrant ID:
Registrant Name: Domain Administrator
Registrant Organization: Newsweek LLC
Registrant Street: 7 Hanover Square, Floor 5,
Registrant City: New York
Registrant State/Province: NY
Registrant Postal Code: 10004
Registrant Country: US
Registrant Phone: +1.6468677100
Registrant Phone Ext: 
Registrant Fax: +1.6466228146
Registrant Fax Ext: 
Registrant Email: domains(at)ibtimes.com
Fewer sites on the same IP = good clue
Google Analytics + AdSense

• Do a find on a webpage’s source code for “UA-” or “Pub-”

• Run that through SpyOnWeb.com to see if other websites are using the same Google Analytics code or Adsense code.

• Also works if you paste in the URL. (But be aware that sometimes these codes change, so better to find the current one.)
<!DOCTYPE html>
<html lang="en-US" prefix="og: http://ogp.me/ns#">
<head>
<meta charset="UTF-8" />
<meta name="viewport" content="width=device-width, initial-scale=1" />
<title>Here Are the Companies Boycotting Laura Ingraham, Let’s Boycott Them Right Back</title>

<script>
(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function()
(i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();a=s.createElement(o),
m=s.getElementsByTagName('script')[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m)
}(window,document,'script','https://www.google-analytics.com/analytics.js','ga'))

 ga('create', 'UA-54260989-7', 'auto');

</script>

window.dataLayer = window.dataLayer || [];
</head>
<!DOCTYPE html>
<html lang="en-US" prefix="og: http://ogp.me/ns#">
<head>

<meta charset="UTF-8" />
<meta name="viewport" content="width=device-width, initial-scale=1" />
<title>Here Are the Companies Boycotting Laura Ingraham, Let's Boycott Them Right Back</title>

<script>
(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function()
(i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();a=s.createElement(o),
m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m)
})(window,document,'script','https://www.google-analytics.com/analytics.js','ga');

ga('create', 'UA-54260989-7', 'auto');

</script>

window.dataLayer = window.dataLayer || [];

</head>
SpyOnWeb

Find out related websites

URL, IP Address, pub-xxxxxxxxx or UA-xxxxxxx

Go!

Check out our API

We take the information from public sources, then structure it for your quick and convenient search for the websites that probably belong to the same owner.
Summary

• Use human sources, always contact people!

• Investigate the network, the history of a SM account.

• Click every link, Google every name.

• Anytime you hit a roadblock, find another way in. There is always a way, and treat everything like a clue.

• Tons of tools/tips: http://bit.ly/verificationtoolsandtips
Debunking Best Practices
Best Practices

• Debunk the idea, not the person.

• Tell a story and show your work.

• Choose the right sources.

• Be positive, reduce repetition.

• Don’t be coy – if it’s fake, say so clearly and repeatedly.

• Don’t debunk small stuff that hasn’t earned it. (You risk giving it more exposure.)

• Use the Wayback Machine or archive.is to archive the page, then link to that. (Don’t give them direct traffic or links.)
Label Images

Official AP Photograph
http://nbcnews.to/PDFRxV

REAL

Snopes outing the fake:
http://bit.ly/Ru8qL8
Original photo:

FAKE
I was brutally attack by some black thugs at the #BlackPanther👑 premiere because they said whites weren't allowed to watch the movie.
Tracking & Monitoring
Constantly monitoring and gathering data