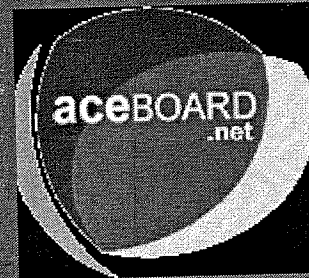


DEPARTMENT
OF JUSTICE
CHILD EXPLOITATION
& OBSCENITY SECTION

Online Groups: Investigation, Forensics, and Prosecution

U.S. Immigration and Customs
Enforcement
Child Exploitation Section

U.S. Department of Justice
Child Exploitation and Obscenity Section



Part 1: What are online groups?

▶ Internet forums

- Generally includes bulletin boards and similar technologies

▶ Social Networking sites

- ▶ Online groups utilize many technologies but the general considerations are membership requirements (open versus closed), unavailable for public searching, method to share material and hold discussions

How do online groups fit into the problem?

- ▶ How are offenders obtaining child pornography
 - Commercial websites
 - IM or SMS services
 - Newsgroups
 - Peer to Peer
 - IRC channels
 - Gigatribe
 - Online groups??



Part 2: Investigating Online Groups

Anatomy of an Investigation and Prosecution of an Online Group

- ✓ Stage 1 - Identification of the Online Group
- ▶ Stage 2 - Seize Content and Forensics
- ▶ Stage 3 - Member Identification
- ▶ Stage 4 - Lead Packaging and Charging Principles/members

Item #8

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Sample Social Networking Site

Whtgg Create Your Own Social Network

Kyle Home Social Networks Friends Notifications Settings

Search Networks

Welcome Back, Kyle

Update Status | Share a Link

Eating a delicious pretzell February 23 - Clear

What are you up to?

The Twilight Saga

Isabella Marie Swan replied to the discussion "Robert Pattinson as the Oscars" 9 seconds ago
"I wish me boof!! is Kristen Stewart going with them?!"

Amyska commented on the photo "c.3 twilight" 5 seconds ago
"lol. Are these for real? They are too cool!"

booz joined a group 5 seconds ago
The Official Breaking Dawn Book Discussion
The Official Breaking Dawn Book Discussion

Lily Christensen replied to the discussion "U know how edward cant go in the sun in public, well on the movie he wears sunglasses... whats that about?" 13 seconds ago
"lol why... but he looks pretty nice in sunglasses! dont ya think?!"

nash added the application "BuddyPoker" 15 seconds ago

Bella replied to the discussion "Which twilight book are you guys excited to be turned into a movie?" 23 seconds ago
"I am looking forward to them all! especially new moon and breaking dawn!"

The Twilight Saga



Edit Your Profile

My Social Networks

View all 25 networks

Find Networks to Join

My Friends

Notifications

- 13 friend requests
- 22 network messages

My Links

- My Alma Mater
- Twitter
- Amazon Wishlist
- Facebook

Create Your Own Social Network

305

Recommended Social Network

CitySkip

Cool people who dig cities.

222 members. Last activity 15 seconds ago.



Using automated tools to capture board?

- ▶ Traditional web capturing will not work on these sites.
- ▶ Save web pages in .html or .pdf format

How big can membership be?

- ▶ Exclusive groups try to limit membership to avoid detection and reposting of material
- ▶ Some groups, usually more explicit limit membership to 20 members
- ▶ Some groups, do not...

Item #8

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# Online Group Organization

## ▶ Social Networking Sites

- Main page
- Members
- Photos
- Videos
- Forum
- Blogs
- Chat

# Sample Social Networking Site

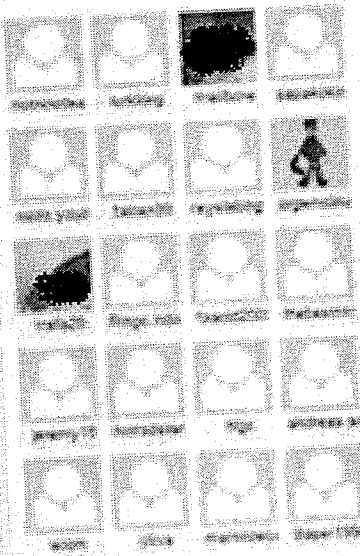
My Account - Chat On - Sign Out

Home My Page People Talks Blogs Photos Videos Funds Fans

## Admins



## Top Contributors



## Welcome

Please Post Photos and vids

@TILLAFRIEND.CITY

## Newsfeed

What are you doing? 140

Update

- alshind7 joined our group!
- branzot9 joined our group!
- lovenjvat1 joined our group!
- artama joined our group!
- boyboy joined our group!
- wee79 joined our group!
- fatca20112000 joined our group!
- Boy joined our group!
- aliter joined our group!
- senexes joined our group!

View All Activities

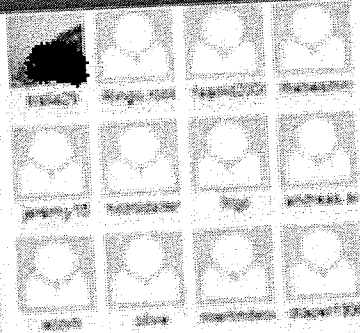
## Photos

## My Account

## Talks

- kunking u here?
- this place sucks
- kunkats is down we are next
- wacktalk??

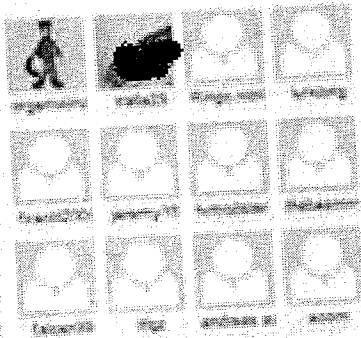
# Sample Social Networking Site



## Online Members



## Latest Members

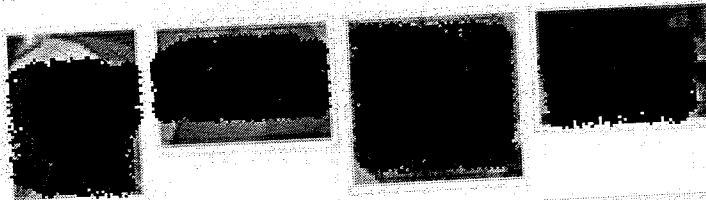


Share

user70 joined our group!  
fateca5112000 joined our group!  
lex joined our group!  
alber joined our group!  
roserke joined our group!

[View All Activities](#)

## Photos

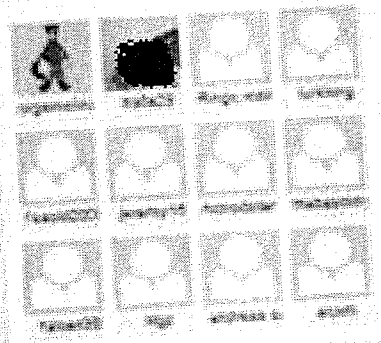


## Videos



# Sample Social Networking Site

## Latest Members



## Share

34 members and counting

### Latest Activities

- [unreadable] joined our group 45 mins ago
- [unreadable] joined our group 45 mins ago
- [unreadable] joined our group 45 mins ago

### Members

[Join Our Group](#)

# Members and Membership Structure

- ▶ Can have a hierarchical structure with different levels of membership
  - Differing abilities and controls within the group
  - Typical for Internet forums
- ▶ Can have an owner/creator and members/followers
  - Typical structure for social networking sites

# Where is the content?

- ▶ Internet forums may have the content located on the same server as the forum or on an outside file sharing site
  - More common method is outside of the forum
- ▶ Social networking sites generally have the content on the same servers



# Where is the content?

- ▶ Common technique is to supply links only to archive files (.rar or .zip) stored at free file sharing websites
- ▶ Archive files require password to open
- ▶ Common technique is to link to personal website with content
- ▶ Common technique is to require reply to message to obtain password or link to avoid reposting

# Who has jurisdiction over the offense?

- ▶ Location of forum – where it's hosted
- ▶ Location of any member
- ▶ Location of undercover access and download
  
- ▶ Which is the best?

# Anatomy of an Online Group Investigation and Prosecution

- ▶ Stage 1 - Identification of the Online Group
- ▶ Stage 2 - Seize Content and Forensics
- ▶ Stage 3 - Member Identification
- ▶ Stage 4 - Lead Packaging and Charging  
Principles/members

**Item #8**

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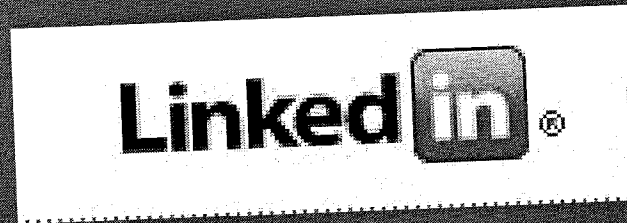
1 Page Withheld In Full
Pursuant to Exemption 7(E)

Online Groups

- ▶ Based on standard web 2.0 components (open source or proprietary)
- ▶ Designed to be massively large (optimized for efficiency for thousands of users)
- ▶ Disable almost all log functionality
- ▶ Data is stored on multiple machines (Overview of Cloud Computing)
- ▶ Separate functionality (DB, Application Server)

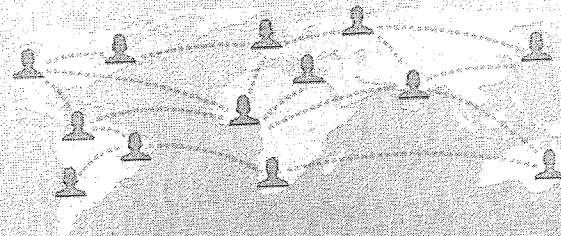
Social Networking Web Sites

- ▶ MySpace
- ▶ Facebook
- ▶ LinkedIn
- ▶ How many different social networking sites



facebook

Facebook helps you connect and share with the people in your life.



Over 120 Different Social Networks

List of social networking websites

From Wikipedia, the free encyclopedia

This is a list of major active social networking websites; for defunct social networking Web sites see List of defunct social networking websites

Please note the list is not exhaustive, and is limited to some notable, well-known sites.

Name ✕	Description/Focus ✕	Registered users ✕	Registration ✕	Global Alexa ^[1] Page ranking ✕
Adult FriendFinder	Adults Only Dating/Hook-up Network	33,000,000 ^[2]	Open	71 ^[3]
Advogato	Free and open source software developers	13,575 ^[4]	Open	118,124 ^[5]
Amie Street	Music		Open	30,628 ^[6]
ANobii	Books		Open	13,111 ^[7]
aSmallWorld	European jet set and social elite	270,000 ^[8]	Invite-only	11,655 ^[9]
Athlinks	Running, Swimming	68,496 ^[10]	Open	107,826 ^[11]
Avatars United	Online games.		Open	302,122 ^[12]
Badoo	General, Popular in Europe c	37,000,000 ^[13]	Open to people 18 and older	146 ^[14]

Social Networking Sites

▶ Characteristics:

- Create 'private' groups
- 'invite only'
- Share pictures, videos
- Provide IM and group chat
- Web logs (Blogs)

▶ Challenges:

- Proprietary, vendor specific programs
- Incomplete or no transactional log records
- Members ability to conceal identity



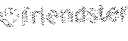




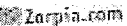






Top Ten Most Popular

1. Facebook
2. MySpace
3. Bebo
4. Friendster
5. Hi5

6. Orkut
7. Perfspot
8. Yahoo!360
9. Zaria
10. Netlog

2010 Social Networking Websites Review Comparisons

TopTenREVIEWS | [Web Services](#) | [Home / Lifestyles](#) | [Social Networking Websites Review](#)

Rank	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
	Facebook	MySpace	Bebo	Friendster	hi5	Orkut	PerfSpot	Yahoo! 360	Zaria	Netlog
										
 Excellent  Very Good  Good  Fair  Poor										

Social Networking Population



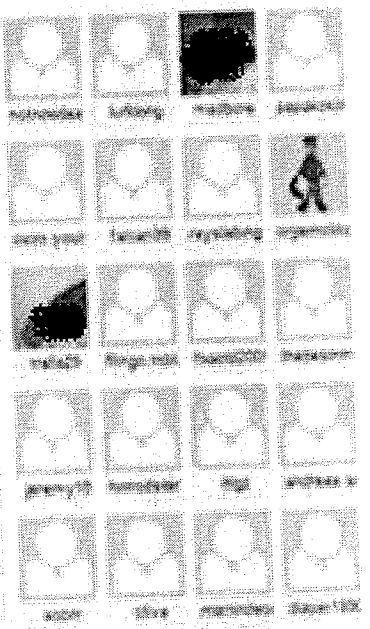
Search bar with a dropdown arrow on the right.

- Home
- My Page
- People
- Talks
- Groups
- Photos
- Videos
- Friends
- Files

Admins



Top Contributors



Welcome

Please Post Photos and Videos

@TELLAFRIEND.GY

Newsfeed

What are you doing?

140

Update

- askins07 joined our group!
- brando10 joined our group!
- joventosa joined our group!
- artemx joined our group!
- boytoy joined our group!
- uac70 joined our group!
- fatisc0112000 joined our group!
- 5er joined our group!
- alber joined our group!
- resexas joined our group!

[View All Activities](#)

Photos

My Account

Talks

- fun song u here?
- this place sucks.
- funpals is down we are next
- trade talk??

Search Warrant of Online Groups

- ▶ Can we seize the data?
- ▶ Can we get the data in readable format?

Options for seizing online groups

- ▶ Data is extracted by vendor onto hard disk (Rare)
- ▶ Data is extracted from 'Production' server to 'developer' server. LE access to development server
- ▶ LE access to entire site via 'portal' or supervisor view

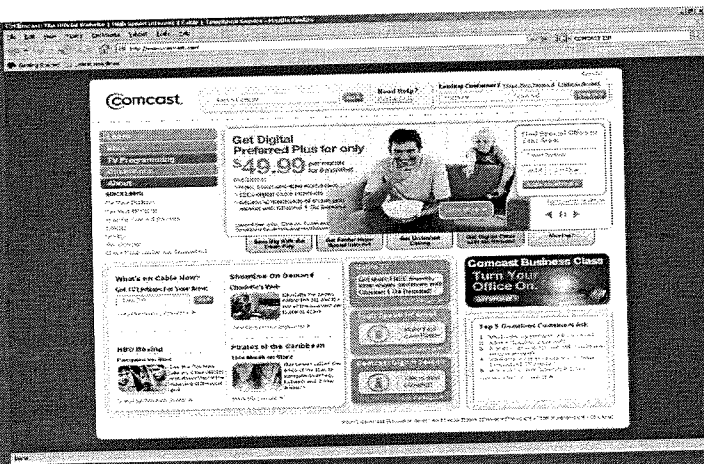
Considerations Before SW

- ▶ Capture site contents in format that will later be shown to a jury
- ▶ Make sure to capture overview of entire group to create complete picture of how each section works

Search Warrant returns of online groups

- ▶ How to isolate and preserve data?
 - Not possible to seize all the data
- ▶ Create custom extraction (MySQL, Excel)
- ▶ Solutions:

Exemption 7(E)



ISP Retention Times and Staleness

- ▶ ISPs vary in how long they retain IP subscriber information
 - 7 days - AOL web cache Proxies
 - 2 years or more – small mom and pops
 - Generally 90 days or less

Exemption 7(E)

Investigative Packages

- ▶ Organize member data into folder identified by screen name, investigator, location
- ▶ Include:
 - member profile if available
 - Complete list of member postings
 - Individual posts of actionable content (label post or reply; include posting, user reply, link, linked content)
 - Screen shot of home page, rules, different categories of board
 - Subpoenas sent out and returns
 - Private messages

android - Baish - ICE

File Edit View Favorites Tools Help

Back Search Folders

Address Z:\(master list\COUNTRIES\BRITISH)android - Baish - ICE

File and Folder Tasks

- Make a new folder
- Publish this folder to the Web

Other Places

- BRITISH
- My Documents
- My Computer
- My Network Places

Details

android - Baish - ICE
File Folder

Name	Size	Type	Date Modified
Home page		File Folder	3/12/2008 11:49 AM
Member Profile		File Folder	3/12/2008 11:49 AM
Reply 1		File Folder	3/12/2008 11:48 AM
Reply 2		File Folder	3/12/2008 11:48 AM
Reply 3		File Folder	6/30/2008 2:05 PM
Reply 4		File Folder	6/30/2008 2:06 PM
Reply 5		File Folder	3/12/2008 11:49 AM
Reply 6		File Folder	3/12/2008 11:48 AM
Rules page		File Folder	3/12/2008 11:48 AM
Subpoenas		File Folder	7/2/2008 3:23 PM
android feb 18 2008 303pm E...	31 KB	Adobe Acrobat Doc...	4/2/2008 5:26 PM
android postings.pdf	81 KB	Adobe Acrobat Doc...	7/1/2008 3:46 PM
android_pms.html	4 KB	Firefox Document	6/27/2008 3:28 PM
IP logins for Android.pdf	55 KB	Adobe Acrobat Doc...	7/1/2008 3:13 PM

14 objects

169 KB

Local intranet

Anatomy of an Online Group Investigation and Prosecution

- ▶ Stage 1 - Identification of the Online Group
- ▶ Stage 2 - Seize Content and Data Processing
- ▶ Stage 3 - Member Identification
- ▶ Stage 4 - Charging members and Prosecuting the Case

Who am I going to Charge?

- ▶ First question:
- ▶ Can this group be charged collectively in one district
 - Advantages
 - Disadvantages
 - Venue
- ▶ Individual leads to the field
 - Strategic approach

Item #8

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Pursuant to Exemption 7(E)

# Trial Considerations

## ▶ Using Cooperators

- Ensure that plea structure commensurate with offender liability is considered early
- Proffer letters promise what?
- Post-sentence assistance (may take a long time to get to trial)

## ▶ Discovery issues

## ▶ Witness issues

## ▶ Experts

# Sentencing

- ▶ Keeping track of comparable sentences
- ▶ Waiting on sentencing until collective case complete
- ▶ Plan for Victim Impact Statements
- ▶ Restitution