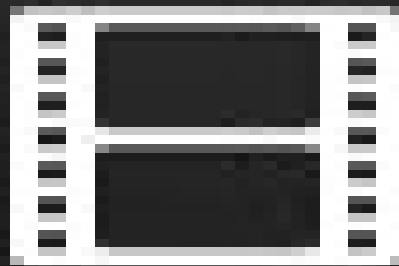
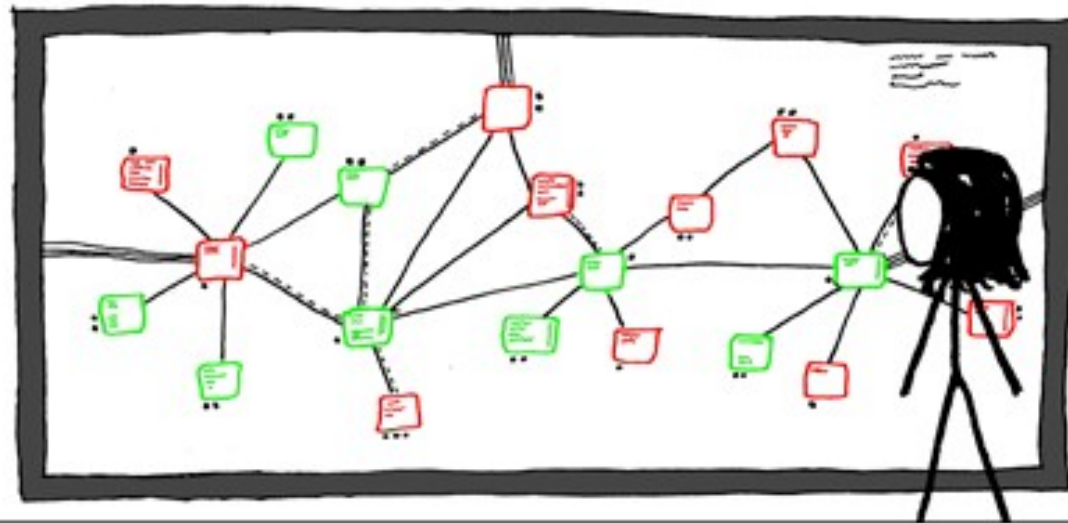


0SqqA3Ru8vgtYS8mIOsb

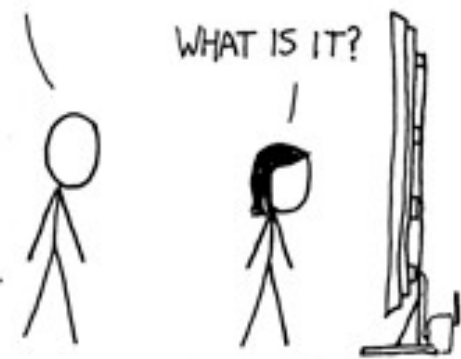


Lecture 5.1 – Networked Communications



PRETTY, ISN'T IT?

WHAT IS IT?



I'VE GOT A BUNCH OF VIRTUAL WINDOWS MACHINES NETWORKED TOGETHER, HOOKED UP TO AN INCOMING PIPE FROM THE NET. THEY EXECUTE EMAIL ATTACHMENTS, SHARE FILES, AND HAVE NO SECURITY PATCHES.



BETWEEN THEM THEY HAVE PRACTICALLY EVERY VIRUS..

THERE ARE MAILTROJANS, WARHOL WORMS, AND ALL SORTS OF EXOTIC POLYMORPHICS. A MONITORING SYSTEM ADDS AND WIPES MACHINES AT RANDOM. THE DISPLAY SHOWS THE VIRUSES AS THEY MOVE THROUGH THE NETWORK,



GROWING AND STRUGGLING.

YOU KNOW, NORMAL PEOPLE JUST HAVE AQUARIUMS.

GOOD MORNING, BLASTER. ARE YOU AND W32.WELCHIA GETTING ALONG?



WHO'S A GOOD VIRUS? YOU ARE! YES, YOU ARE!

Announcements

- LA-1: 26%
- LA-2: 30%
- LA-3: 87%
 - SA Part 2 – see Discussion Board
 - SE
- LA-4 available Thursday, due Oct 1
- Participation Point
 - Anonymous Course Evaluation Survey
 - Due Saturday at midnight

Today

- Our Networked World
- Spam
- Internet Interactions
- Text Messaging

Our Networked World

- Networked communications integral to our lives
 - Internet
 - Cellular networks
- Benefits
 - Conducting business
 - Connecting with friends and relatives
 - Entertainment
- Harms
 - Scams
 - Bullying and harassment
 - Possible threats to democratic institutions

Internet

- 1969 ARPANET: first packet-switched network connecting UCLA, Stanford, UCSB, and UU
- 1972 E-mail
- 1974 TCP/IP
- 1983 Internet is born
- 1991 WorldWideWeb
- 1997 HTTP/1.1

Internet Fossils

Featured Areas

Click the buttons below to view our featured sections!

[Hercules](#)

[McDonald's Japan](#)

[McWorld](#)
HeY, iT CouLD HaPPeN

Welcome to the McDonald's Official Web Site



Click on the [Golden Arches](#) to enter the main site!

Internet Fossils

Foot Locker

While you are here please let us know what information/services you would like for Foot Locker to provide in the future.

Name:

Email Address:

Street:

City:

State:

Zip:

Browser:

Modem Speed: Age:

What information would you like to see on our new site?


- | | |
|---|--|
| <input type="checkbox"/> Product Information | <input type="checkbox"/> New Product Announcements |
| <input type="checkbox"/> Sports Events/Features | <input type="checkbox"/> Celebrity Chat |
| <input type="checkbox"/> Games | <input type="checkbox"/> Store Locators |

Other Comments:

Internet Fossils



Internet Fossils




ANHEUSER **BUSCH**
Companies Inc.

CORPORATE OVERVIEW

ENTERTAINMENT OPERATIONS

NEWS AND HISTORY



BEER OPERATIONS

PACKAGING OPERATIONS

FINANCIAL INFORMATION

ANNUAL REPORT

Anheuser-Busch's operations and resources are focused on beer, adventure park entertainment and packaging. Anheuser-Busch also has interests in aluminum beverage container recycling, malt production, rice milling, real estate development, turf farming, creative services, metalized paper label printing, railcar repair and transportation services.

[a-b links](#) • [contact a-b](#) • [search](#) • [site map](#)

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Anheuser-Busch, Inc. products are brewed to be enjoyed responsibly by adults.

[Here's our Privacy Policy](#)
[Terms and Conditions](#)

Internet Fossils



Internet Fossils



Internet Interactions

- Web: networked hypertext system
 - Stimulated tremendous growth in popularity of Internet
 - Two important attributes
 - It is decentralized
 - Every Web object has a unique address (the **URL**)
- Mobile Apps
 - People spending more time on smartphones and tablets
 - Using Web browsers awkward on mobile devices
 - Mobile apps replace Web browsers as way to access Internet on mobile devices

Internet Usage

- Buying and selling
- Socializing (e.g., Facebook)
- Contributing content (e.g., wikis and blogs)
- Visiting secret Web sites
- Crowdsourcing
- Learning
- Exploring our roots
- Entering virtual worlds
- Controlling the Internet of Things
- Paying taxes
- Gambling
- Taking humanitarian action
- So much more...

Web 2.0

- Focus shifts to social networking, user-generated content, participatory culture
- Crowdsourcing
 - Online method of obtaining goods or services from a large group of people
- Advertising primary business model
 - Facebook and Google receive majority of revenue

New Social Technologies

- New technologies sometimes cause new social situations to emerge
 - Calculators → feminization of bookkeeping
 - Telephones → blurred work/home boundaries
- Spam an example of this phenomenon
 - Email messages practically free
 - Profits increase with number of messages sent
 - Strong motivation to send more messages
- Design of Internet allows unfair, one-way communications

Spam



Spam


- Unsolicited, bulk email
- Spam is profitable
 - \$10 to send an ad to a million email addresses
 - More than 30,000 times cheaper than “junk mail”
- Spam tsunami hit Internet in 2003
 - Spam only 9% of email traffic in 2002
 - Spam rose to 85% of email traffic by 2009
- How firms get email addresses
 - Portscans, Web sites, chat-room conversations, newsgroups
 - Computer viruses
 - Dictionary attacks
 - Contests
- Most spam sent by bot herders who control **botnets**: huge networks of compromised computers

Spam

- New software industry grew up to fight spam
- ISPs and businesses have installed spam filters
- Even with filters, wasted productivity estimated at tens of billions of dollars per year in U S alone
- Law enforcement agencies around world making effort to shut down botnet command centers
- Meanwhile, spammers moving to selective email lists
- Share of spam in email traffic peaked at 85% in 2009 and has been declining since then – now around 57%

Spam Example


KN95 FILTERING MASK





SALE
In Stock: KN95 Face Masks

Unlike cloth, KN95 masks actually filter pathogens out of the air. The purpose-built KN95 material is light, but layered thick enough to extract 95% of particulate matter out of the air before it goes into your lungs.

Get 50% OFF Now


Multilayer Protection


Reusable


Breathable

Connect with Us!

| -coast/messages/
North Street Media
146444 N. 91st St.
Scottsdale, AZ - 85260

From - Fri Sep 18 09:40:57 2020

X-Account-Key: account4

X-UIDL: 1600443504.20264.server303.com,S=11278

X-Mozilla-Status: 0001

X-Mozilla-Status2: 00000000

X-Mozilla-Keys:

Return-Path: <lindsey.w@unionsupportservcer.com>

Delivered-To: **@*****

Received: (qmail 20183 invoked by uid 502); 18 Sep 2020 15:38:23 -0000

Received: from declaration.unionsupportservcer.com (74.80.133.54)

by server303.com with SMTP; 18 Sep 2020 15:38:23 -0000

DKIM-Signature: v=1; a=rsa-sha1; c=relaxed/relaxed; s=93x8j4nryb; ...

Subject: Protect yourself with a KN95 Face Mask

To: **@*****

MIME-Version: 1.0

Reply-To: lindsey.w@unionsupportservcer.com

Message-ID: <GhxgjbTf01osMWDSBMnGG@declaration.unionsupportservcer.com>

From: Lindsey W <lindsey.w@unionsupportservcer.com>

Content-Type: multipart/alternative;

boundary="661931222226033=Kwkf0IuhC201Vje=?"

Date: Fri, 18 Sep 2020 11:38:24 -0400

--661931222226033=Kwkf0IuhC201Vje=?

Content-type: text/plain; charset="UTF-8"

Content-transfer-encoding: 8bit

Eh, cI have a few ideas we could go over with you, let meknow racial prejudice and still does to the majority of people. in fact, most people outside of certain circles would think it's ridiculous to say racial prejudice isn't racist. all the racism = power + prejudice equation really says is that racism is worse when it's against the disenfranchised. which is a fair point, but redefining.

orbiting each other. it all makes sense now. i must have watched that loop 10 times in a row before i even wanted to look away. the kitten is inspecting the puppy's socks! piglins fire nation confirmed we are the dragonhearted courage to stop a cannonball. together we stand thirty feet tall. we?ve got a fire

<http://www.unionsupportservcer.com/dkfo/de33d/333f>

Connect with Us!

--661931222226033=Kwkf0IuhC201Vje=?

Content-Type: text/html; charset="UTF-8"

Content-transfer-encoding: 8bit

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN">

<html xmlns="http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<head>

Address Harvesting

```
07/13 21:15:40 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [useruser]
07/13 21:15:54 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [John]
07/13 21:18:00 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [reseller01]
07/13 21:18:17 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [admin_user]
07/13 21:19:09 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [postmaster]
07/13 21:20:16 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [general]
07/13 21:21:18 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [admin_test]
07/13 21:23:59 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [reseller02]
07/13 21:24:38 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [pepito]
07/13 21:25:12 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [support]
07/13 21:28:58 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [maria]
07/13 21:29:32 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [teche88]
07/13 21:29:58 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [resellers]
07/13 21:31:24 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [sales1]
07/13 21:33:19 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [mars]
07/13 21:34:25 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [mail]
07/13 21:35:33 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [technical]
07/13 21:37:41 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [impresora]
07/13 21:42:02 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [pruebas]
07/13 21:43:59 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [user]
07/13 21:46:26 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [diseno]
07/13 21:47:57 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [root]
07/13 21:49:45 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [test]
07/13 21:50:52 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [monitor]
07/13 21:51:54 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [scan]
07/13 21:53:57 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [sale]
07/13 21:55:13 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [ben]
07/13 21:59:37 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [contactenos]
07/13 21:59:54 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [webadmin]
07/13 21:59:58 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [sales]
07/13 22:02:31 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [besadmin]
07/13 22:04:01 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [brother]
07/13 22:05:01 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [info]
07/13 22:05:10 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [testtest]
07/13 22:05:49 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [techuser]
07/13 22:08:20 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [link]
07/13 22:10:29 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [tester]
07/13 22:11:54 [DEBUG] smtp :: .../utils/address.py (68) :: parseAddress(): [tecknicenter]
```


Text Messaging

- M-PESA in Kenya
 - Save money
 - Pay bills
 - Transfer funds
- Communicate information about crop prices
- Protect against counterfeit medicine
- Twitter
 - Web-based social networking service
 - More than 300 million users
 - Blogging tool
 - Business promotion

Next Time

- Censorship and Free Speech
- Read section 3.5 – 3.9