

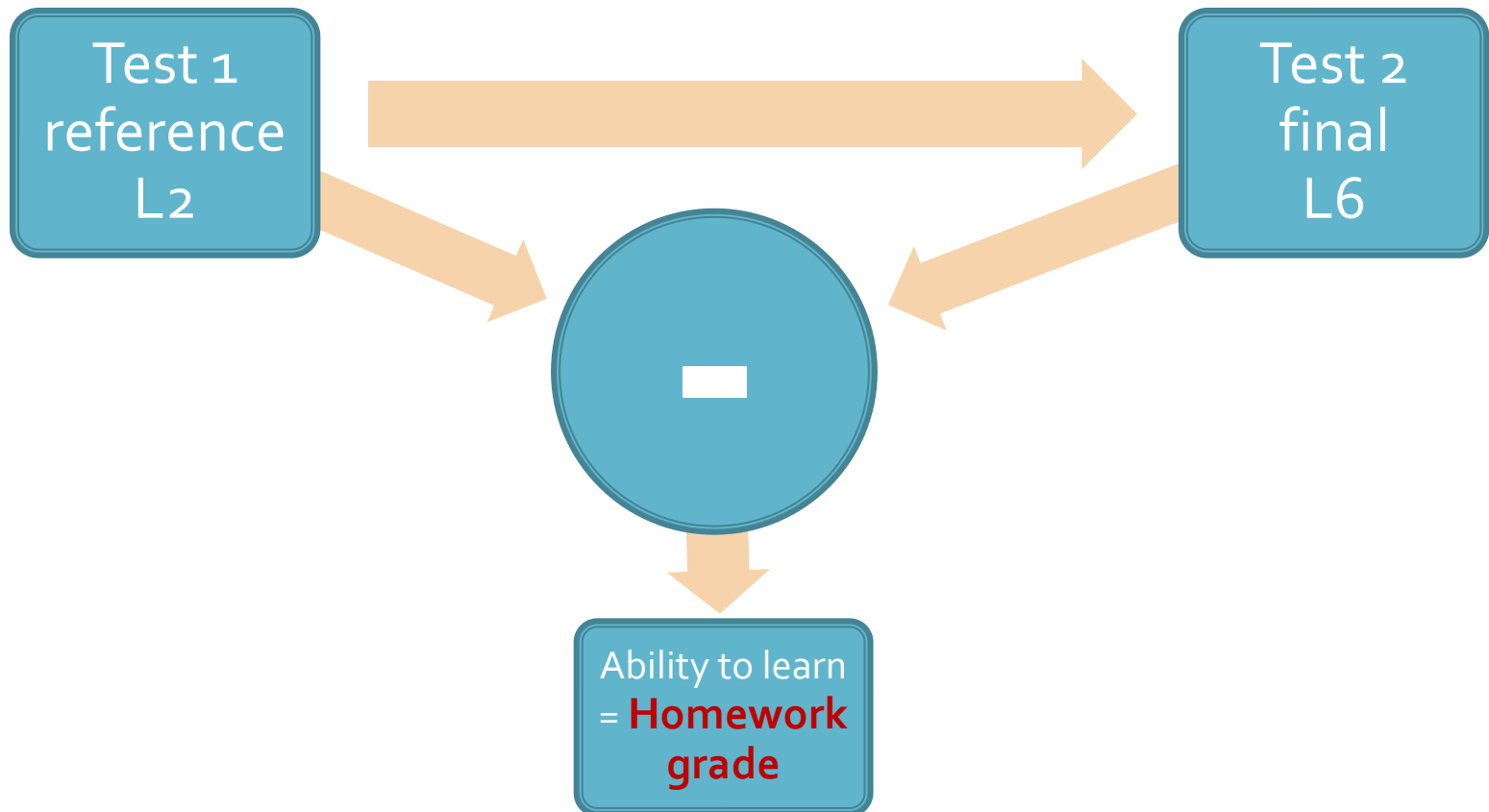
Lecture 4
2012/2013

Internet Programming Techniques

Refresher

Homework

- lecture 6, mandatory presence, 25% grade

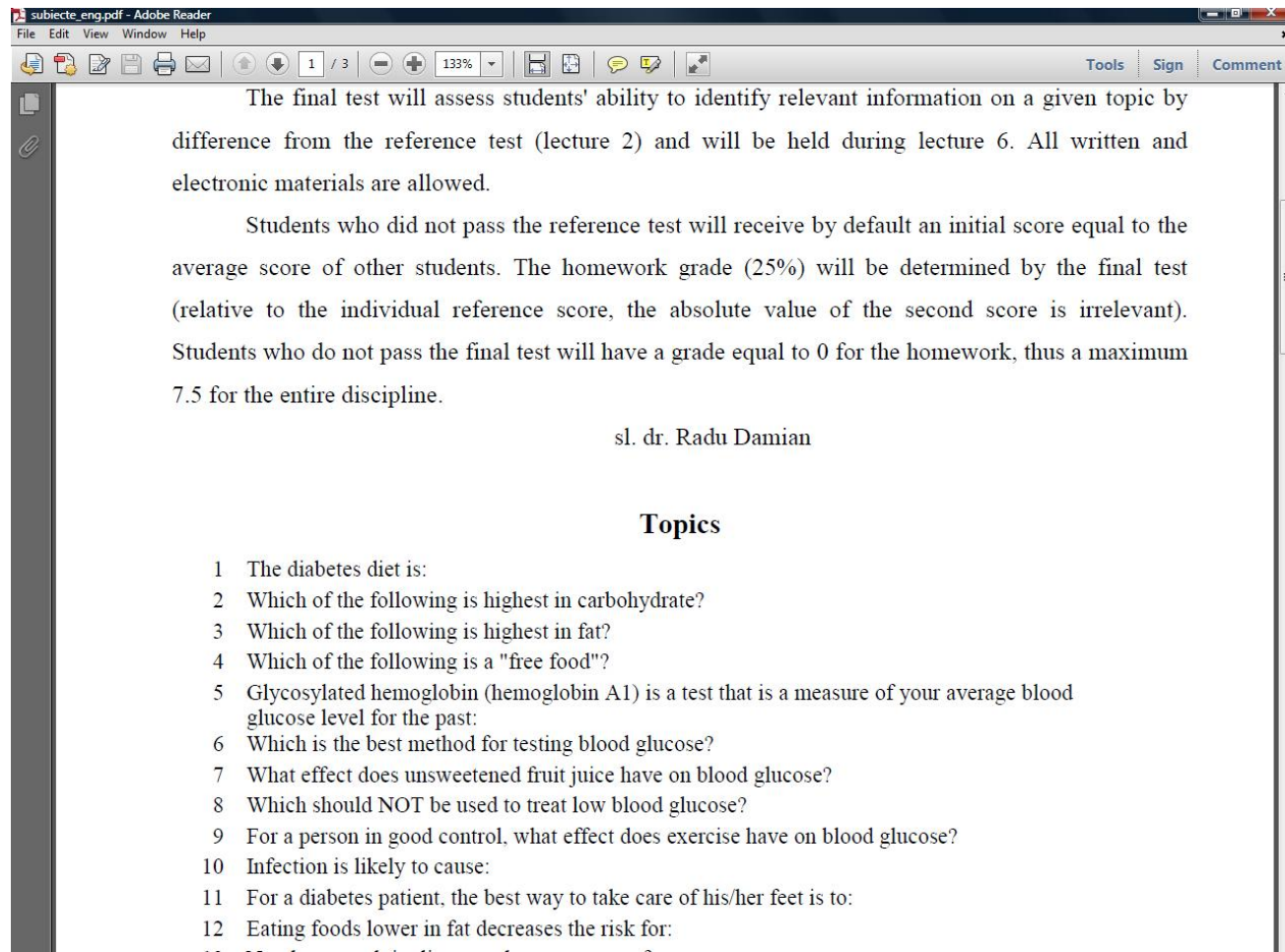


Results

Nr	Nume	Grupa	Subiect	Rezultat	% [38]
1	ALEXANDRACHI ADINA	5100	149	19	50
2	BISCA MARIAN	5100	147	12	32
3	DAMASCHIN TUDOR	5100	144	15	39
4	LEONTIOAIA BOGDAN	5100	148	16	42
5	MANTALUTA DENIS LARISA	5100	150	7	18
6	MURARASU TRAIAN	5100	146	14	37
7	VLAD ALIN	5100	143	17	45
8	ZAVATE SILVIU	5100	145	15	39
		Valoare medie		14.4	37.8

Topics – online

<http://rf-opto.etti.tuiasi.ro>



The final test will assess students' ability to identify relevant information on a given topic by difference from the reference test (lecture 2) and will be held during lecture 6. All written and electronic materials are allowed.

Students who did not pass the reference test will receive by default an initial score equal to the average score of other students. The homework grade (25%) will be determined by the final test (relative to the individual reference score, the absolute value of the second score is irrelevant). Students who do not pass the final test will have a grade equal to 0 for the homework, thus a maximum 7.5 for the entire discipline.

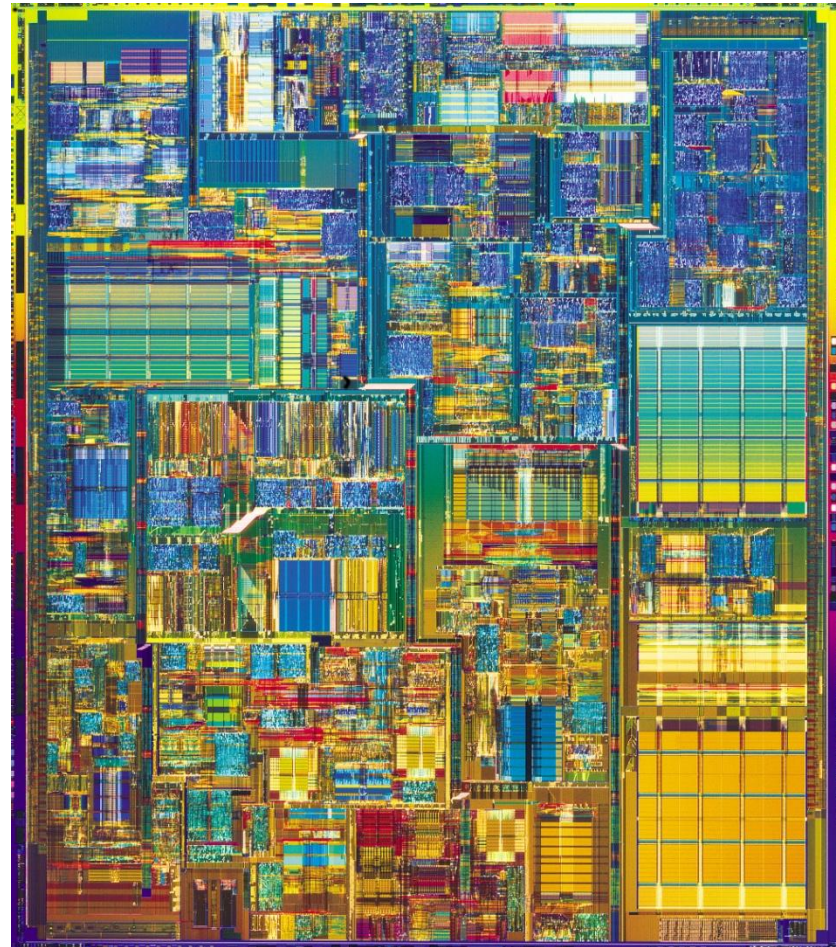
sl. dr. Radu Damian

Topics

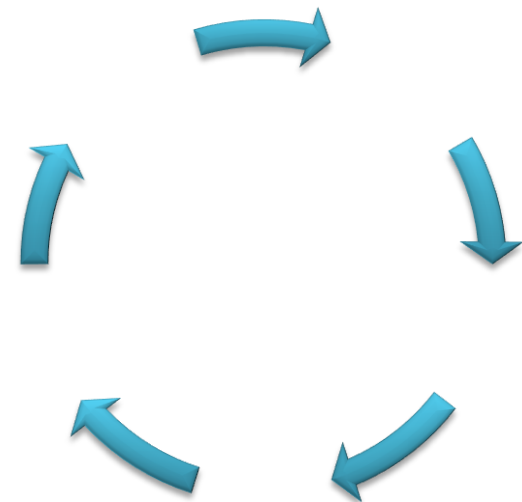
- 1 The diabetes diet is:
- 2 Which of the following is highest in carbohydrate?
- 3 Which of the following is highest in fat?
- 4 Which of the following is a "free food"?
- 5 Glycosylated hemoglobin (hemoglobin A1c) is a test that is a measure of your average blood glucose level for the past:
- 6 Which is the best method for testing blood glucose?
- 7 What effect does unsweetened fruit juice have on blood glucose?
- 8 Which should NOT be used to treat low blood glucose?
- 9 For a person in good control, what effect does exercise have on blood glucose?
- 10 Infection is likely to cause:
- 11 For a diabetes patient, the best way to take care of his/her feet is to:
- 12 Eating foods lower in fat decreases the risk for:

Impressive?

- Intel® Itanium® processors (codenamed Tukwila)
- 2 billions transistors on each CPU
- >3 billions operations per second
- Low level of complexity, elementary operations



- Un programator n-a venit la servicii de **trei zile**.
- Colegii de servicii au venit la el acasă și-l găsesc pe acesta **chel**, dormind în cadă, ținând în mâini un șampon.
- Au luat șamponul și s-au apucat să citească instrucțiunile de folosire:
 - Clătiți părul cu apă.
 - Aplicați șamponul
 - Frecați
 - Așteptați două minute
 - Clătiți părul cu apă
 - **Repetăți procedura.**



Internet Applications

Searching on the Internet

Homework!

Search Engines

■ Search Engines

■ 2009 (International)

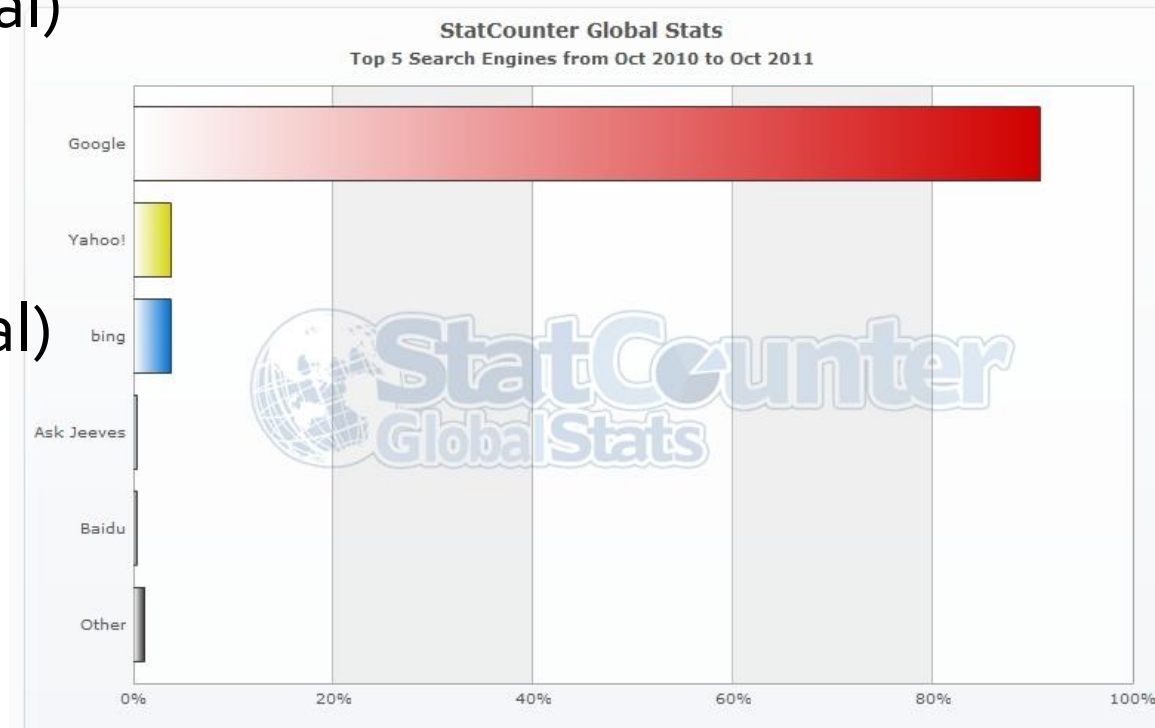
- Google (89.8%)
- Yahoo (5.15%)
- Bing (3.27%)

■ 2011 (International)

- Google (91.1%)
- Bing (3.63%)
- Yahoo (3.56%)

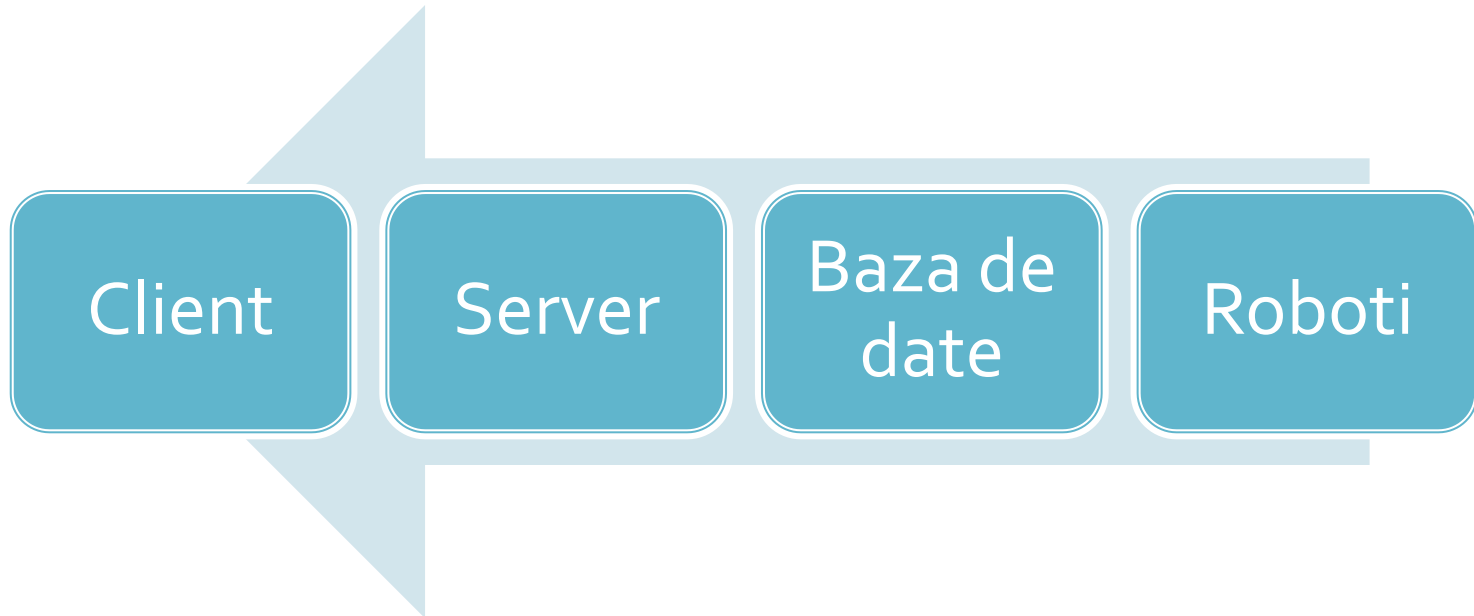
■ 2012

- similar



Search Engines

- SEO
 - Search Engine Optimization



Searching operators

- AND
 - logical and
 - $Cuv_1 \text{ AND } Cuv_2$
 - $+ Cuv_1 + Cuv_2$
- OR
 - logical or
 - $Cuv_1 \text{ OR } Cuv_2$
- NOT
 - logical negation
 - $Cuv_1 \text{ AND NOT } Cuv_2$
 - $+ Cuv_1 - Cuv_2$



[Advanced Search](#)
 [Preferences](#)
[Language Tools](#)

[Advertising Programs](#) - [Business Solutions](#) - [About Google](#) - [Go to Google România](#)

©2008 - [Privacy](#)

Searching operators

- NEAR

- close on the page
- Cuv_1 NEAR Cuv_2

- Phrase

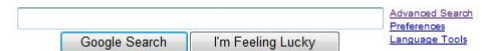
- "Cuv_1 Cuv_2 Cuv_n"

- Default operator: AND

- Cuv_1 Cuv_2 = Cuv_1 AND Cuv_2

- Advanced search

- Web User Interface to insert these operators
- Many more options are available



[Advertising Programs](#) - [Business Solutions](#) - [About Google](#) - [Go to Google România](#)

©2008 - [Privacy](#)

Advanced search

diabetic ketoacidosis signs and symptoms

Find web pages that have...

all these words:

this exact wording or phrase:

one or more of these words: OR OR

But don't show pages that have...

any of these unwanted words:

Need more tools?

Reading level:

Results per page:

Language:

File type:

Search within a site or domain:

(e.g. youtube.com, .edu)

☐ [Date, usage rights, region, and more](#)

Date: (how recent the page is)

[Usage rights:](#)

Where your keywords show up:

Region:

Numeric range: ..

(e.g. \$1500..\$3000)

[SafeSearch:](#) ☒ Off ☐ On

[Advanced Search](#)

This option does not apply in [Google Instant](#).

Short tutorial for searching

- Use unambiguous terms
 - ~~film~~ thin film technology
- Try to find a term characteristic **only to** the needed information
- **Do not feel lucky!!!** (lucky = lazy)
- **Do not** search in native language
 - English or learn Chinese
- It's more important to find a usable **site** than finding the punctual needed information

The Google logo is displayed in its characteristic multi-colored font (blue, red, yellow, blue, green, red). A red arrow points from the word 'lucky' in the text 'Do not feel lucky!!!' to the Google logo.

Google Search

I'm Feeling Lucky

Short tutorial for choosing sources

- Estimate the real **identity** of the publisher
- Estimate the **competence** of the publisher
- Estimate the **credibility** of the publisher
- **Cross-check** acquired information
 - Find information **with the same meaning** from other **identifiable, competent, credible** sources
- After identifying a valid source browse in the same place for **other related information**

Identity

- Evaluate at the best of your abilities the real identity of the data publisher because:
 - **Anyone** can publish **any** information
 - **Anyone** can assume **any** identity
 - especially in some sites (**? free**)
- Possible check strategies
 - Domain name
 - ETTI Iasi -> etti.tuiasi.ro
 - Email addresses
 -@etti.tuiasi.ro
 - Check inclusion by visiting the “parent” domain
 - www.etti.tuiasi.ro -> www.tuiasi.ro 👍
 - kovlerdaily.wordpress.com/ -> www.wordpress.com (**? free**) 🙄

Competence

- Evaluate at the best of your abilities the real competence of the data publisher
 - Diabetes Research Center in developed countries
 - University/Teaching Hospital in developed countries
 - Public Hospital
 - Private Hospital/Medical Practice
 - Non medical association
 - Public/**Forum**



Credibility

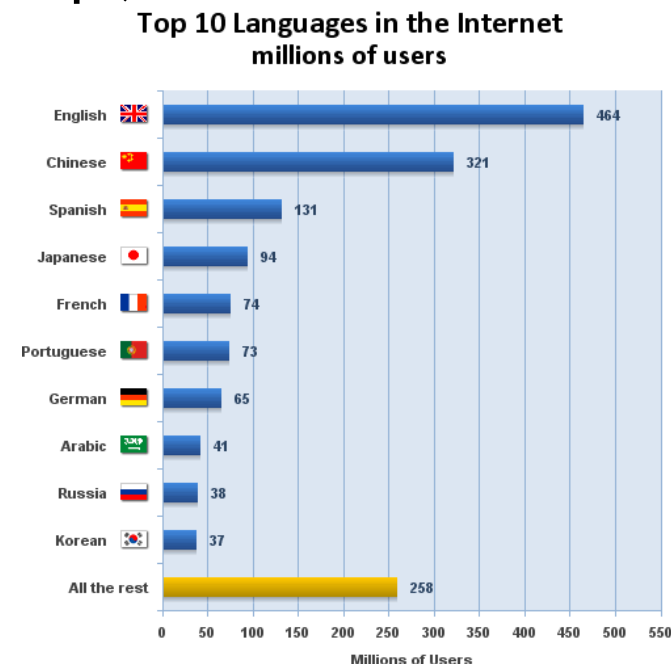
- Try to detect the “conflict of interest” for the publisher
 - Private practices/firms involved in the domain (~)
 - **Insulin** information more credible from a **injections equipment** producer
 - **Injections equipment** information more credible from a **insulin** producer
 - Information more credible from **a great name** in that field
 - their “name” weights more than an eventual publicity
 - Presence of general publicity (Google adSense) in the site (?) 🙅

Search example 1

- Madonna – Like a prayer (lyrics)
 - Madonna – 91.500.000
 - Madonna Prayer – 2.880.000
 - +Madonna +Prayer – 2.580.000
 - +Madonna +Prayer –religion – 98.500
 - +Madonna +“Like a prayer” – 818.000
 - +Madonna +“Like a prayer” +lyrics – 144.000
 - All first 10 results contain the information we need

Search example 2

- Diabet, semne de cetoacidoza
 - diabet (RO) – 6.530.000 (0.24s)
 - diabetes (ENG) – 277.000.000 (0.14s)
 - <http://translate.google.com>
 - good results for individual words
 - cetoacidoza -> ketoacidosis
 - Diabetes AND ketoacidosis



Search example 2

- Diabet, semne de cetoacidoza
 - diabetic OR ketoacidosis OR signs – **653.000.000**

- Diabetes AND ketoacidosis

- diabetes ketoacidosis – 8.380.000 (0.19s)
- diabetic ketoacidosis – 1.340.000 (0.1s)

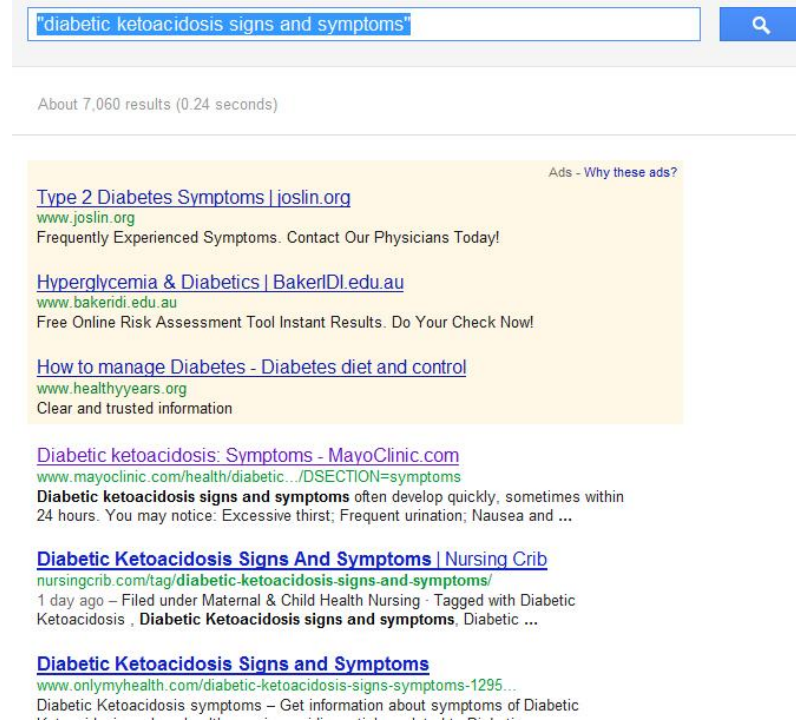


- diabetic ketoacidosis signs – 10.900.000
- +diabetic +ketoacidosis +signs – 10.900.000



Search example 2

- Diabet, semne de cetoacidoza
 - "diabetic ketoacidosis signs" – 17.400
 - "diabetic ketoacidosis signs and symptoms" – 7.060



Search example 2

"diabetic ketoacidosis signs and symptoms"



About 7,060 results (0.24 seconds)

Type 2 Diabetes Symptoms | joslin.org

www.joslin.org

Frequently Experienced Symptoms. Contact Our Physicians Today!

Hyperglycemia & Diabetics | BakerIDI.edu.au

www.bakeridi.edu.au

Free Online Risk Assessment Tool Instant Results. Do Your Check Now!

How to manage Diabetes - Diabetes diet and control

www.healthyears.org

Clear and trusted information

Ads - Why these ads?

Diabetic ketoacidosis: Symptoms - MayoClinic.com

www.mayoclinic.com/health/diabetic.../DSECTION=symptoms

Diabetic ketoacidosis signs and symptoms often develop quickly, sometimes within 24 hours. You may notice: Excessive thirst; Frequent urination; Nausea and ...

- Sponsored results
 - Usually less usable information
 - psychology: avoided by users (conflict of interest)

■ Recognized by:

- The URL contains only the domain name "www.site.com" (without "/file.htm")
- Below the result is a commercial line (slogan) not a quote from the page

Search example 2

- Diabet, semne de cetoacidoza
 - "diabetic ketoacidosis signs and symptoms" – 7.060

[Type 2 Diabetes Symptoms | joslin.org](http://www.joslin.org)

www.joslin.org

Frequently Experienced Symptoms. Contact Our Physicians Today!

[Hyperglycemia & Diabetics | BakerID.edu.au](http://www.bakeridl.edu.au)

www.bakeridl.edu.au

Free Online Risk Assessment Tool Instant Results. Do Your Check Now!

[How to manage Diabetes - Diabetes diet and control](http://www.healthyears.org)

www.healthyears.org

Clear and trusted information

[Diabetic ketoacidosis: Symptoms - MayoClinic.com](http://www.mayoclinic.com/health/diabetic.../DSECTION=symptoms)

www.mayoclinic.com/health/diabetic.../DSECTION=symptoms

Diabetic ketoacidosis signs and symptoms often develop quickly, sometimes within 24 hours. You may notice: Excessive thirst; Frequent urination; Nausea and ...

[Diabetic Ketoacidosis Signs And Symptoms | Nursing Crib](http://nursingcrib.com/tag/diabetic-ketoacidosis-signs-and-symptoms/)

nursingcrib.com/tag/diabetic-ketoacidosis-signs-and-symptoms/

1 day ago – Filed under Maternal & Child Health Nursing - Tagged with Diabetic Ketoacidosis , **Diabetic Ketoacidosis signs and symptoms**, Diabetic ...

[Diabetic Ketoacidosis Signs and Symptoms](http://www.onlymyhealth.com/diabetic-ketoacidosis-signs-symptoms-1295...)

www.onlymyhealth.com/diabetic-ketoacidosis-signs-symptoms-1295...

Diabetic Ketoacidosis symptoms – Get information about symptoms of Diabetic ...

Email

Email

- Asynchronous communication method
- A way to write, send, receive and save messages via electronic communication systems
- “store and forward” – an intermediate station stores the message and sends it to the recipient **when** requested
- **Preferred** communication method in professional relations

Email History

- 1971 – first email sent (ARPANET)
- 1973 – email = 75% from ARPANET traffic
- 1996 – 300 million messages/day
- 2001 – 9.8 billion messages/day
- 2008
 - 210 billion messages/day
 - 1.3 billion users
- 2011
 - 3.1 billion accounts
 - 71% from email traffic – spam
 - 300 billion messages/day

Email address

- requires the existence of an account (**username**) on a computer (**MailServer**) that provides email services.
- Form: **username@mailserver**
- @ = "at"
- spaces and commas not valid in username
- mailserver: (sub)domain name or IP address
- most accounts have limitations on the total size of the data

Message structure

- Header
 - TO - recipient address and the recipient's name
 - Subject - a short descriptive text of the message (**extremely important**)
 - CC – Carbon Copy
 - BCC – Blind Carbon Copy
 - Date
- Body
 - Text
 - HTML
 - Attachments
- Signature – 4÷9 lines (text/HTML)
- Limit on message size: ~10-25MB
 - MIME: Multipurpose Internet Mail Extensions – **not efficient**

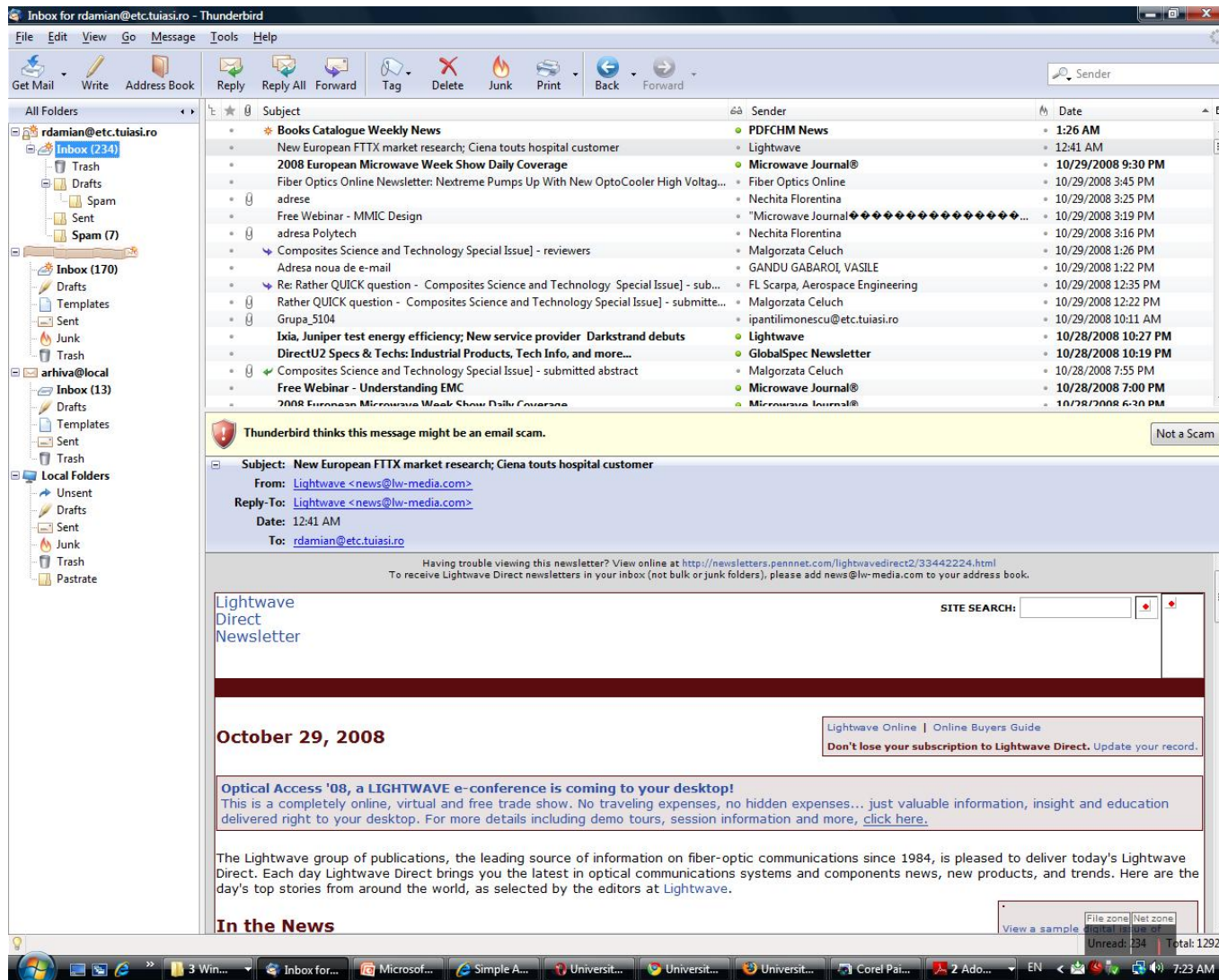
Email Concepts

- Protocols
 - POP₃ – Post Office Protocol
 - IMAP – Internet Messages Access Protocol
 - webmail
 - SMTP – Simple Mail Transfer Protocol
- Spam
 - Unsolicited Commercial Email
 - is currently estimated to represent 70-75% of all messages
 - major economic problems
 - storage
 - filter
 - loss of valid messages

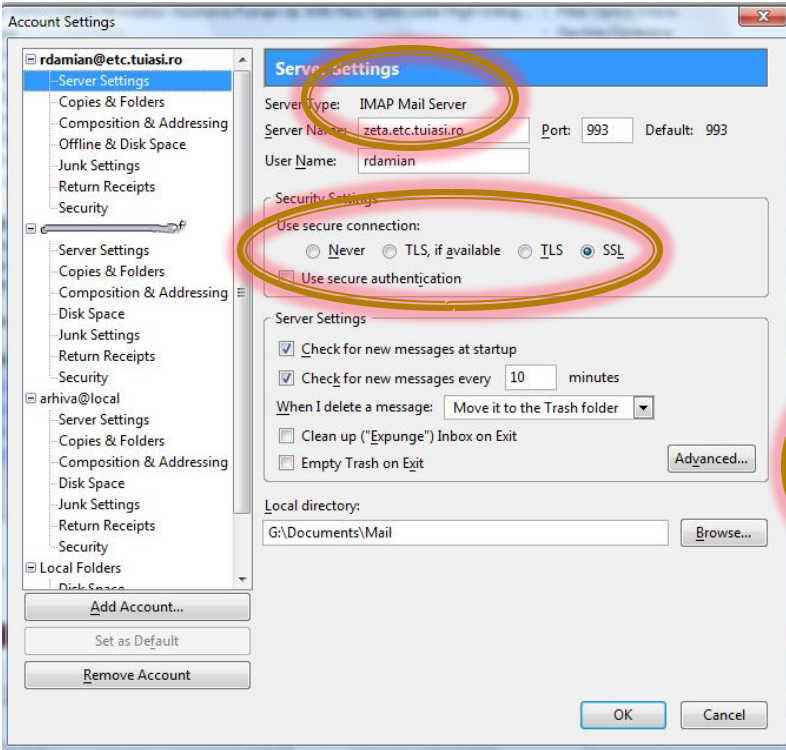
Email Concepts

- Viruses
 - as attachments to emails
 - Email worms: self multiply via email
 - All modern antivirus systems are able to check an email before opening it
- Security
 - Messages are generally unencrypted
 - messages go through several gateways on the way to the recipient, can be intercepted
 - Many ISP keeps a local copy of messages before delivering them, messages often remain in "cache"
 - SSL - Secure Sockets Layer
 - SASL - Simple Authentication and Security Layer

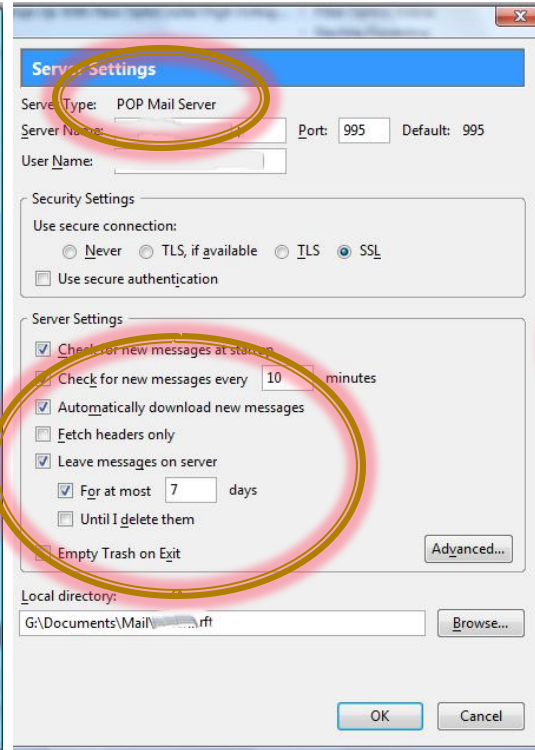
MUA - Mail User Agent



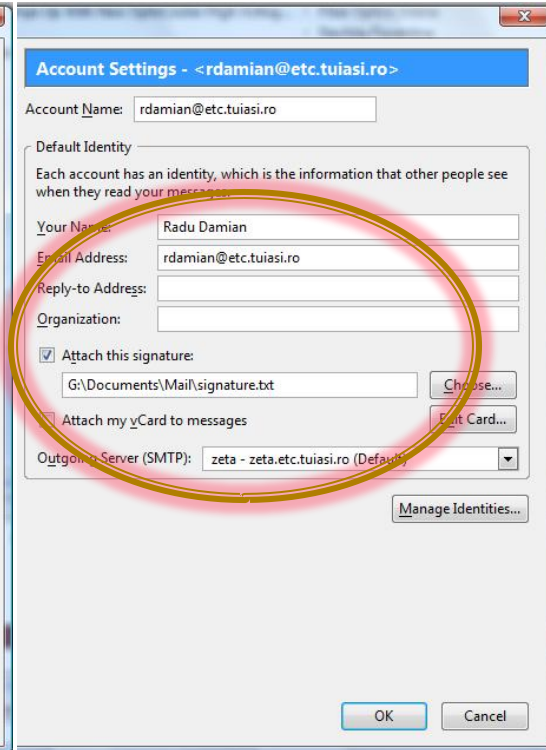
Thunderbird Settings



IMAP server
SSL (security)

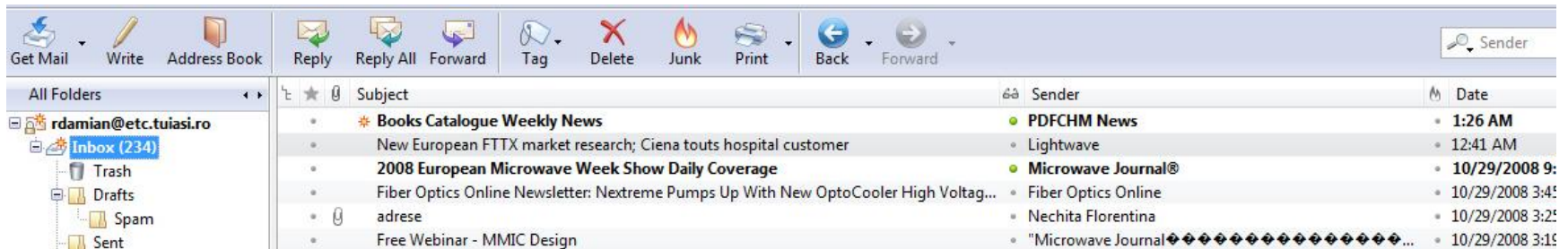


POP₃ server
Leave messages on server

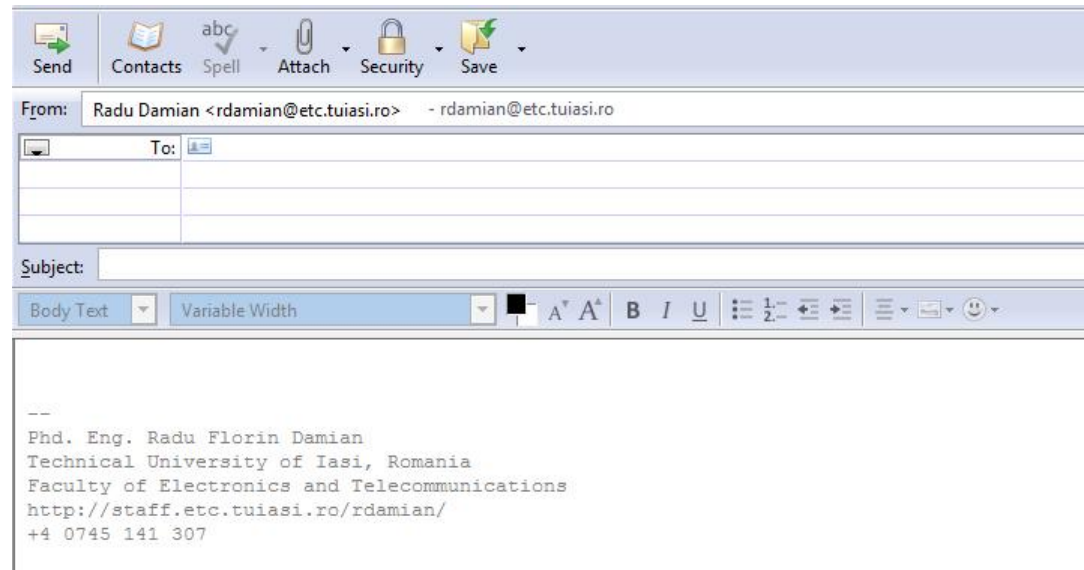


Identity
Signature

Email actions



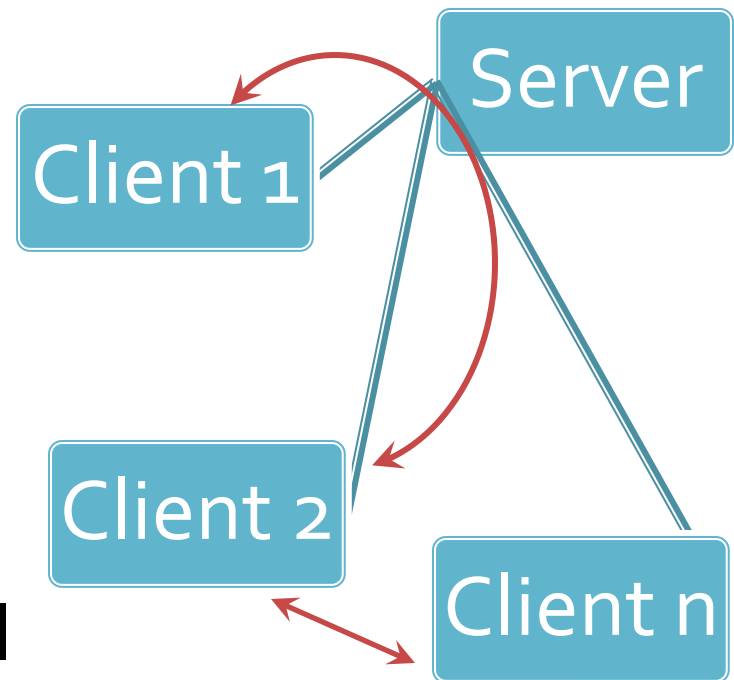
- Get Mail (check mail, get messages)
- Write (compose, new)
- Reply
 - inline
 - as attachment
- Forward



Other Internet Applications

Instant Messaging, Chat, Talk

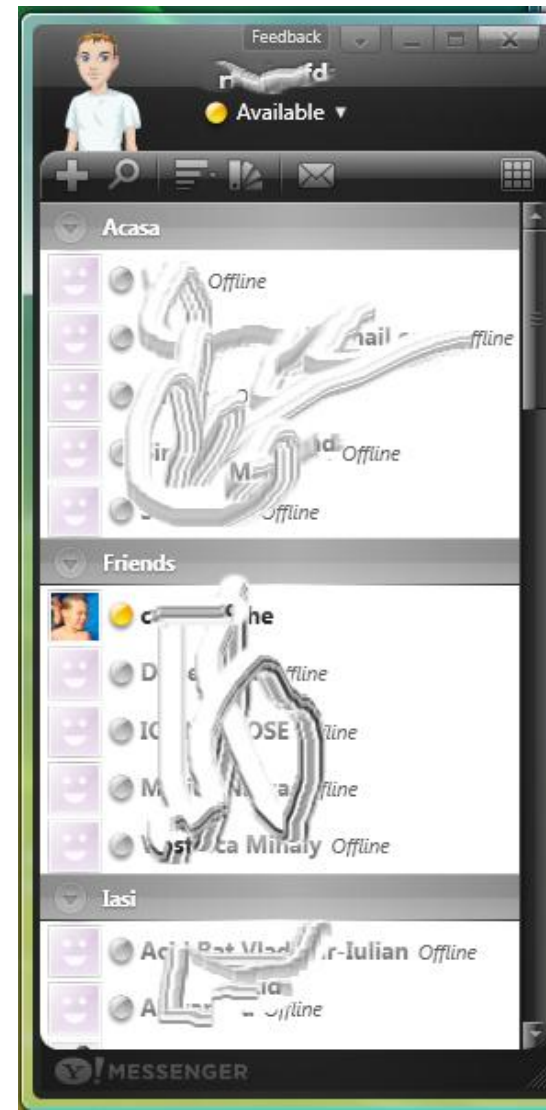
- Synchronous communication methods
- some require a server to intermediate communications
 - client – server – client
 - client – client
- IM – 1/1, paragraph level
 - Yahoo
 - Microsoft
 - AOL
- Chat – 1/x, paragraph level
- Talk – 1/1, character level



YM

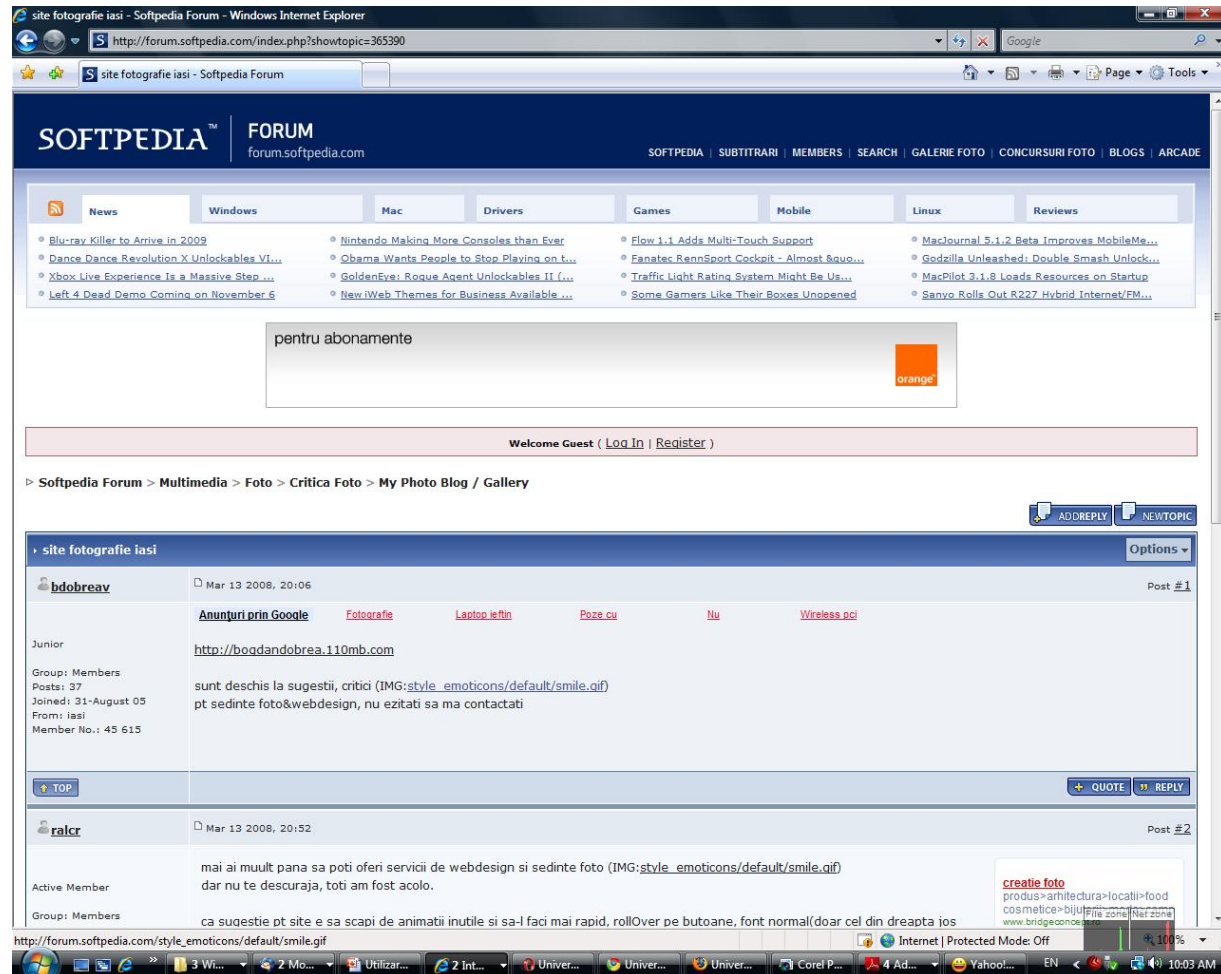


- Yahoo Messenger
- <http://messenger.yahoo.com>
- emoticons
 - ☺ = :), ☹ = :(, ;-)
 - hidden emoticons: @};- , [-O< , ^:)^^
- abbreviations
 - AFAIK – as far as I know
 - BRB – be right back
 - IIRC – if I recall correctly
 - IMHO – in my humble opinion
 - LOL – laughing out loud
 - ROTFL – rolling on the floor laughing
 - etc.....



Forum

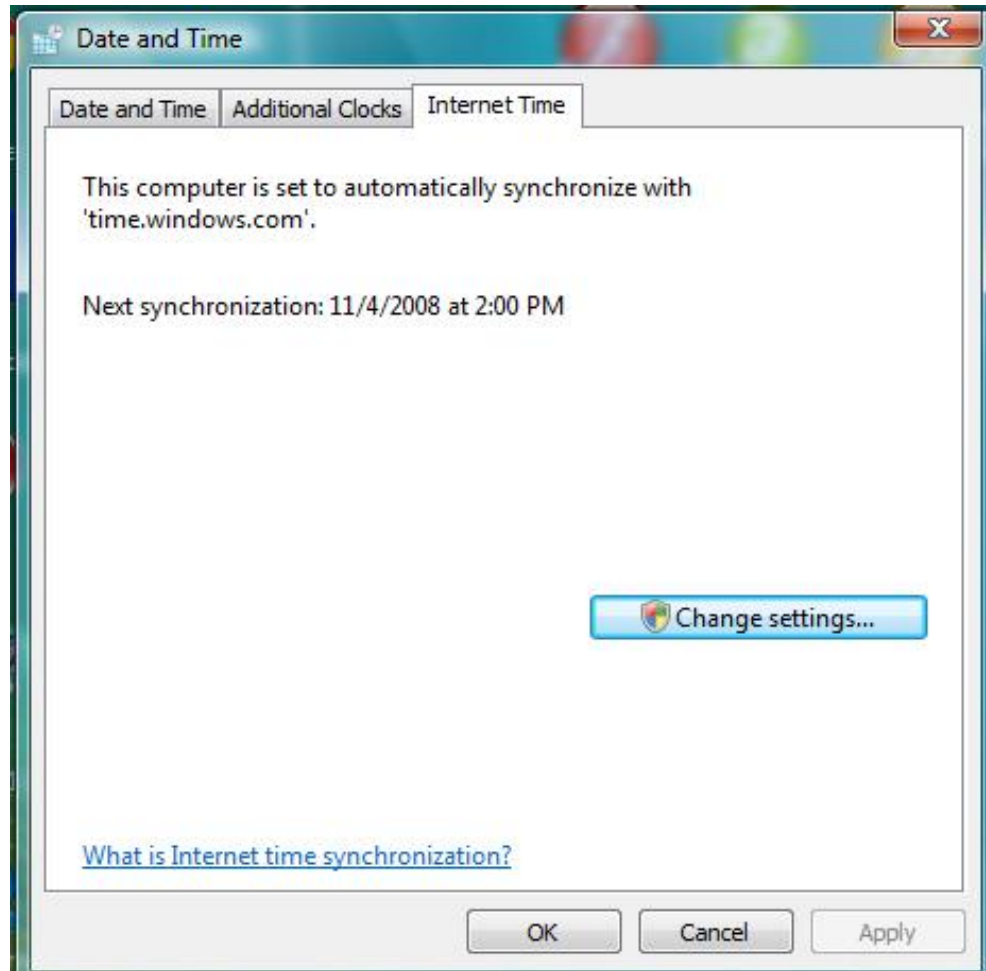
- Asynchronous chat
- Oriented on some specific field
- Tree structure (graph)
- Rules (enforced by moderators)
- Meeting point for people with common interests
- Valid place for information



FTP

- FTP – File Transfer Protocol
- **Efficient** method for transmitting binary data (MIME - 66%)
- client – server application
 - files are uploaded to a server which stores them
 - account: username:password@server
 - anonymous:email_address
 - browser: **ftp://numecont:parola_in_clar@ftp.tuiasi.ro**
 - typical port : 21
- Security
 - SSH – Secure Shell
 - SFTP – SSH file transfer protocol
 - SCP – Secure Copy Protocol
 - typical port : 22
- Software
 - Browser
 - WinScp
 - Total Commander

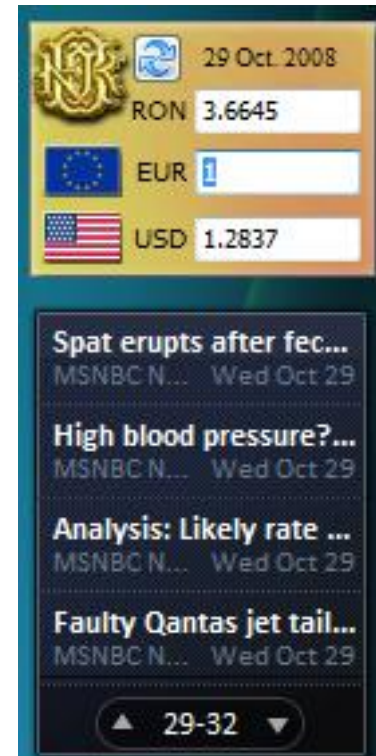
Internet Time



RSS

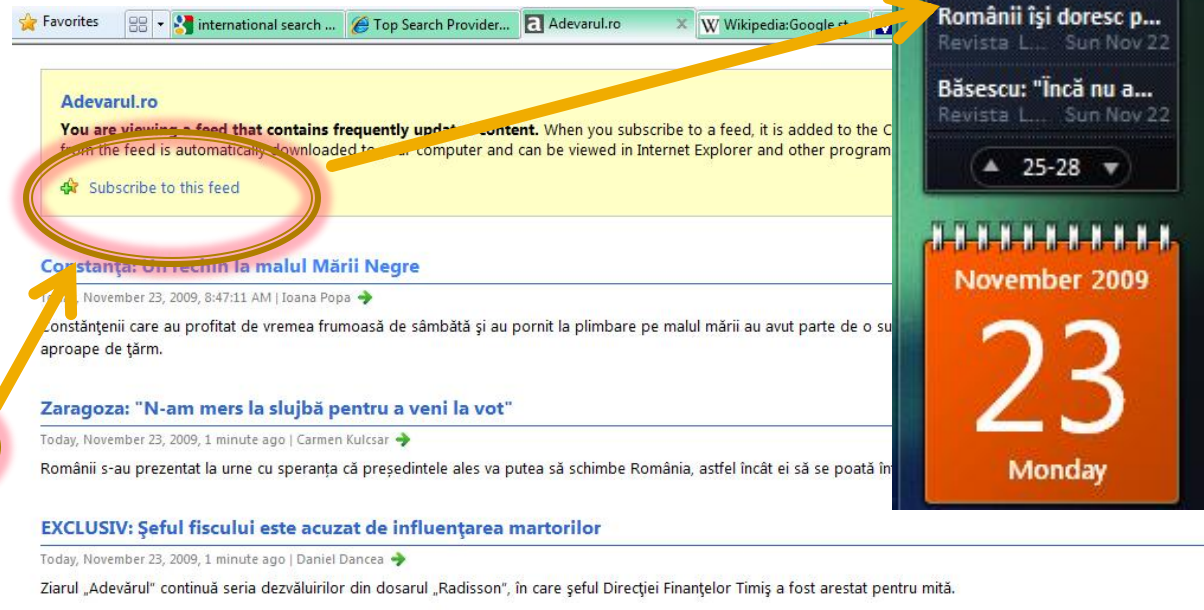


- RSS – Really Simple Syndication
- Web format used to make available to users and/or other servers frequently changing information
 - news
 - Forum posts



RSS

- Access to data feeds
 - identifying feeds
 - register to feeds ("Subscribe to this feed")
 - software to display information



2009-11-20

RON 4.2817

EUR 1

USD 1.4877

Antonescu: "Institute...

Revista L... Sun Nov 22

Geoană a mulțumit ...

Revista L... Sun Nov 22

Românii își doresc p...

Revista L... Sun Nov 22

Băsescu: "Încă nu a...

Revista L... Sun Nov 22

25-28

November 2009

23

Monday

Ultimă Oră TOATE ȘTIRILE

08:42 | Poliția a înregistrat 26 de incidente electorale în județ-Revista presei locale

08:41 | Rezultatele etapei a 13-a din Italia

Adevarul.ro

You are viewing a feed that contains frequently updated content. When you subscribe to a feed, it is added to the C... from the feed is automatically downloaded to your computer and can be viewed in Internet Explorer and other program

Subscribe to this feed

Constanța: Un rechin la malul Mării Negre

November 23, 2009, 8:47:11 AM | Ioana Popa

Constanțenii care au profitat de vremea frumoasă de sâmbătă și au pornit la plimbare pe malul mării au avut parte de o su... aproape de tărâm.

Zaragoza: "N-am mers la slujbă pentru a veni la vot"

Today, November 23, 2009, 1 minute ago | Carmen Kulcsar

Românii s-au prezentat la urne cu speranța că președintele ales va putea să schimbe România, astfel încât ei să se poată în...

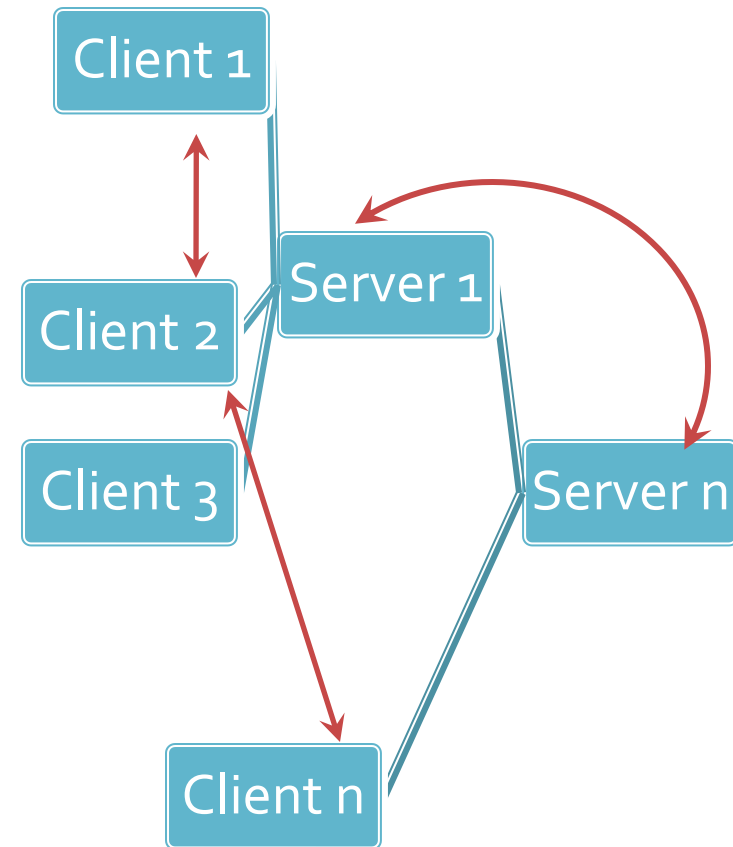
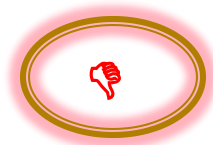
EXCLUSIV: Șeful fiscului este acuzat de influențarea martorilor

Today, November 23, 2009, 1 minute ago | Daniel Dancea

Ziarul „Adevărul” continuă seria dezvăluirilor din dosarul „Radisson”, în care șeful Direcției Finanțelor Timiș a fost arestat pentru mită.

P2P

- P2P – peer to peer
- Extremely effective, **distributed** way of sharing and transferring data
 - Data is stored on client computers
 - The server maintains a client/data list
 - The transfer is done directly between clients
 - Multiple clients simultaneously
- Software
 - Kaaza
 - Torrent
 - Emule
 - **Direct Connect**
- Notions
 - swarm
 - seed
 - leech
- **Legal problems**



Social Networks

- In the U.S., Facebook social network transfers more data than Google
- Worldwide, digital activity related to social media exceeded that related to pornography (undisputed leader to date)
- In the U.S., 1 out of 8 couples married recently met on a social network
- Facebook has more users than the population of many countries around the globe. Facebook "population" would place the network on the 3rd position after China and India.

Social Networks

- Companies/Organizations are increasingly interested in having a good image over the social networks than to be placed on top in Google. New type of jobs consisting in attending these social networks to influence these images ("postac" - RO)
- Companies often use social networks to recruit
- Wikipedia has over 15 million articles and is considered as correct as Encyclopedia Britannica

Social Networks - discussions

- Which network?
- Reasons?
- Problems?
- 1 topic on the final exam!
 - obligation to attend at least **once** at least **one** social network

Contact

- Microwave and Optoelectronics Laboratory
- <http://rf-opto.etti.tuiasi.ro>
- rdamian@etti.tuiasi.ro
- Homework, lecture 6, mandatory presence, 25% grade