



Are we ready for Cartography 2.0?

Application of web 2.0 in cartographic education



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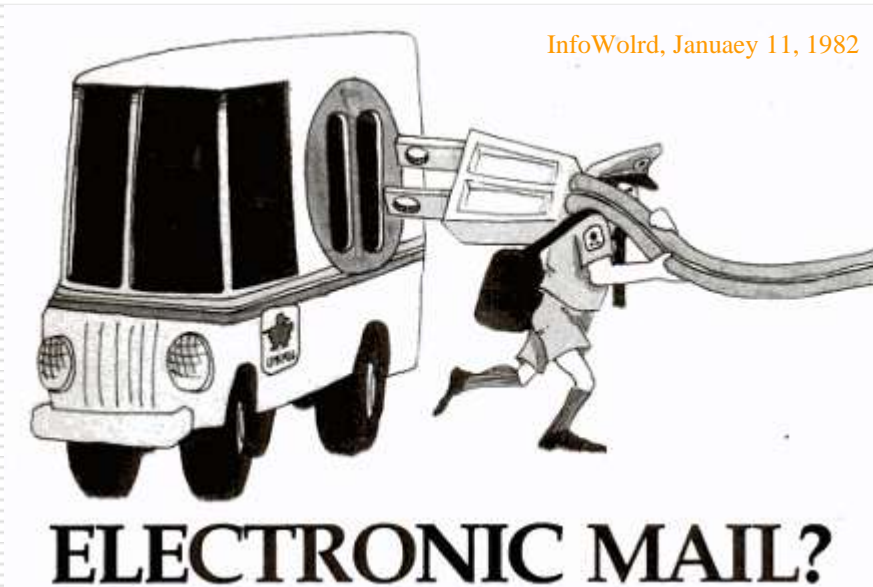
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- ❑ *I made some programming first (and last) time on Commodore-64 around 1986.*
- ❑ *I wrote my first email in 1993.*
- ❑ *We run our websites since 1995 (I am the main editor).*
- ❑ *We run 4-5 servers simultaneously on our department (file server, web server, print server, map server, GPS base station data server).*



Introduction mosaics



1943: Predictions – be careful



<http://www.gartner.com/it/page.jsp?id=1278413>
<http://www.ivy-style.com/wp-content/uploads/2009/05/6703ph02.jpg.jpeg>

Thomas J. Watson (IBM's president: 1914-1956) was a leading self-made industrialist, he was one of the richest men of his time and was called the world's greatest salesman.

He reputedly said: „*I think there is a world market for maybe five computers.*”

Nevertheless the story had already been described as a myth in 1973.

Gartner Inc. predictions for IT organizations and users in 2010 and beyond:
„Within 2 years time, one fifth of business will own no IT assets, they will use only cloud computing.”

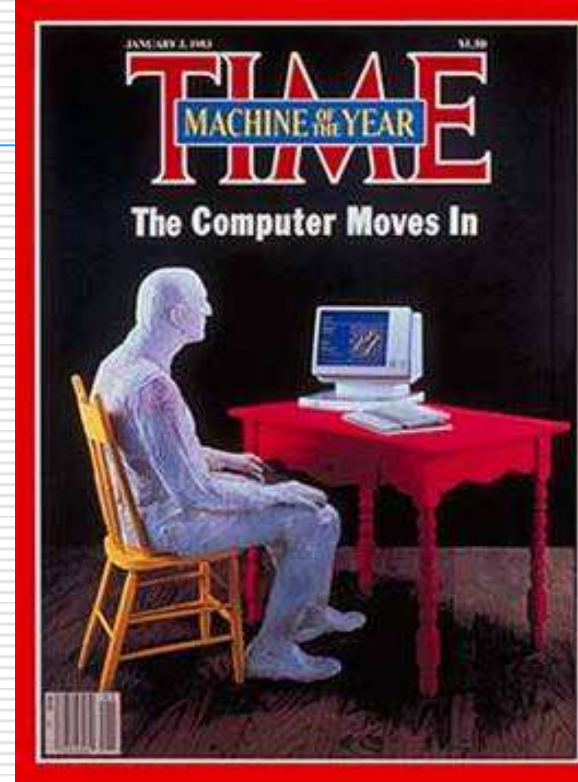
<http://www.gartner.com/it/page.jsp?id=1278413>



1982: Time – Man of the Year

There are some occasions, though, when the most significant force in a year's news is not a single individual but a process, and a widespread recognition by a whole society that this process is changing the course of all other processes.

That is why TIME has decided that 1982 is the year of the computer. It would have been possible to single out as Man of the Year one of the engineers or entrepreneurs who masterminded this technological revolution, but no one person has clearly dominated those events. More important, such a selection would obscure the main point. TIME's Man of the Year for 1982, the greatest influence for good or evil, is not a man at all. It is a machine: the computer.



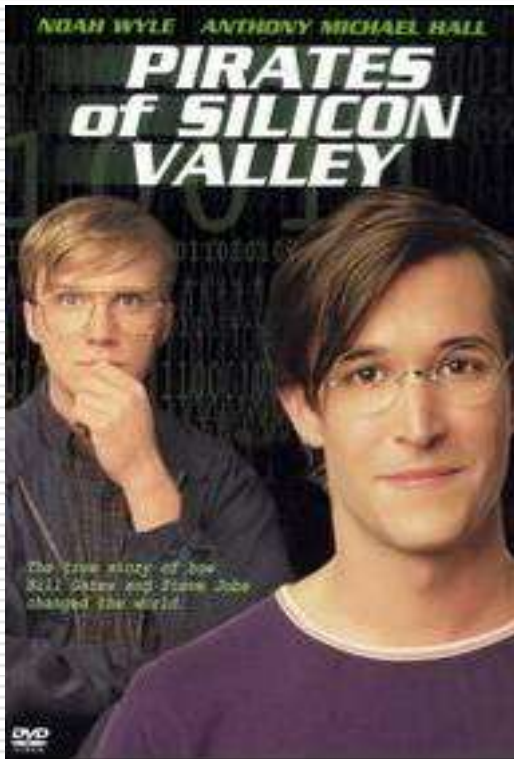
http://www.randomn3ss.com/wp-content/uploads/2007/12/time_magazine.jpg



<http://www-03.ibm.com/ibm/history/exhibits/pe/images/02101.jpg>



1999: Movie



This tech-world biographical film traces the fortunes of personal-computer companies Apple and Microsoft from their backyard origins to their very public battle for corporate supremacy. The movie follows the parallel lives of Microsoft founder **Bill Gates** and Apple co-founders **Steve Jobs** and **Steve Wozniak**. Much like the personal-computer industry itself, the action starts with Apple then gradually shifts to Microsoft. The movie shows how Jobs and Wozniak „borrowed” key concepts from a Xerox computer lab, and finally fell out with one another over the pressure of success.

<http://www.globalwebcasters.com/images/divx/pirates-of-silicon-valley.jpg>



1991: WWW – Tim Berners-Lee („web 1.0“)



http://i.telegraph.co.uk/telegraph/multimedia/archive/00682/bernerslee-404_682192c.jpg

The World Wide Web (WWW) has revolutionized the computer and communications world like nothing before.

The invention of the telegraph, telephone, radio, computer and Internet set the stage for this unprecedented integration of capabilities.

Invented by Tim Berners-Lee in 1991, the Web has become a **medium for collaboration and interaction** between individuals and their computers without regard to geographic location.



2006: Time – Person of the Year

Yes, **you**. You control the Information Age.
Welcome to your world.

The tool that makes this possible is the World Wide Web. Not the Web that Tim Berners-Lee hacked together as a way for scientists to share research.

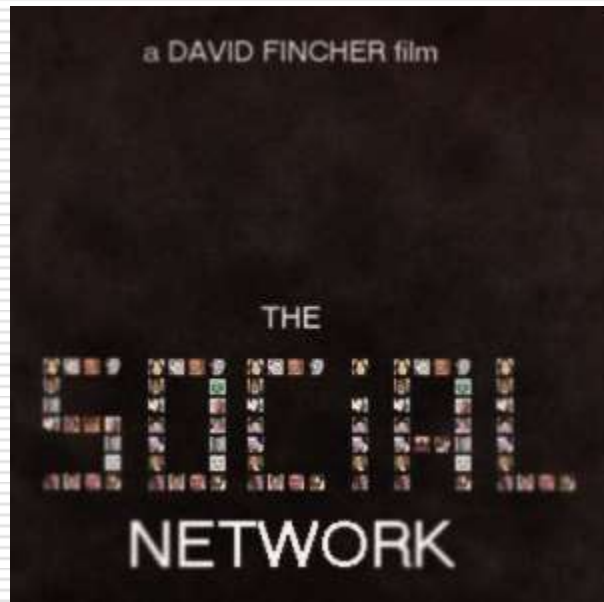
It's not even the overhyped dotcom Web of the late 1990s. The new Web is a very different thing. It's a **tool for bringing together** the small contributions of millions of people and making them matter. Silicon Valley consultants call it Web 2.0, as if it were a new version of some old software. But it's really a revolution.



<http://magculture.com/blog/wp-content/uploads/2007/01/timeCoverPoY.jpg>

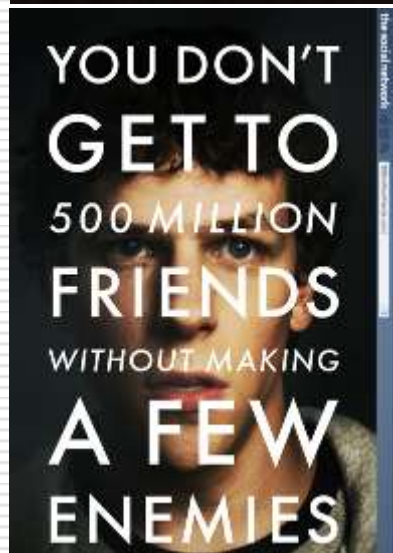


2010: Movie



A movie based on Mark Zuckerberg and the founding years of Facebook, called **The Social Network**, was released on October 1, 2010.

According to Aaron Sorkin's script, **Mark Zuckerberg** created Facebook to elevate his stature after not getting into any of the elite final clubs at Harvard. Yet Zuckerberg told that he had no interest in joining the final clubs.



<http://www.thesocialnetwork-movie.com/>



<http://www.winandmac.com/wp-content/uploads/2010/10/mark-zuckerberg-facebook.jpg>



Cartography – the term



http://gallery.sjsu.edu/cartography/images/main_world.jpg



The term: cartography

The term cartography has totally changed in the last centuries. It is part of the natural evolution of subjects, but the recent changes (including the last 30-40 years) in cartography are very characteristic.



International Cartographic Association

Definition of cartography

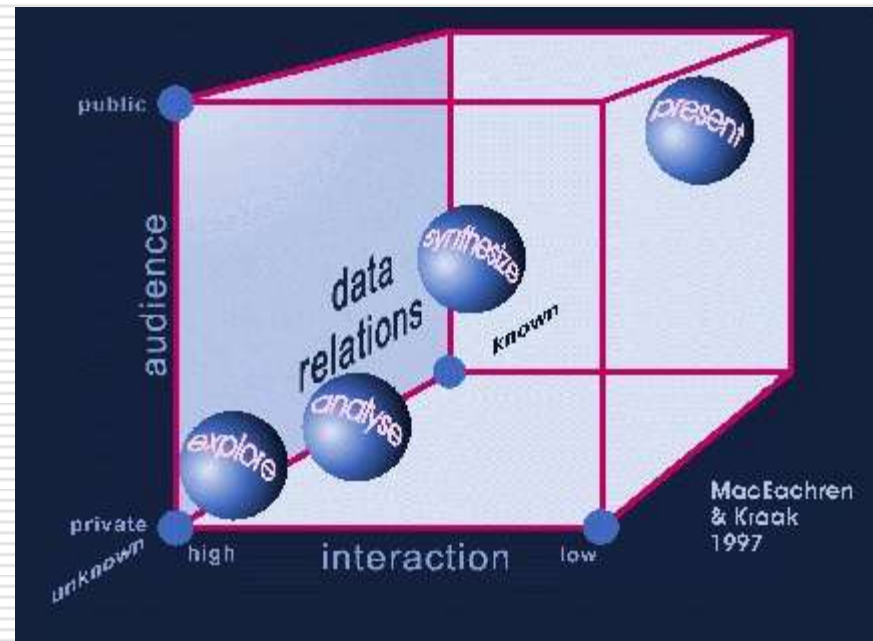
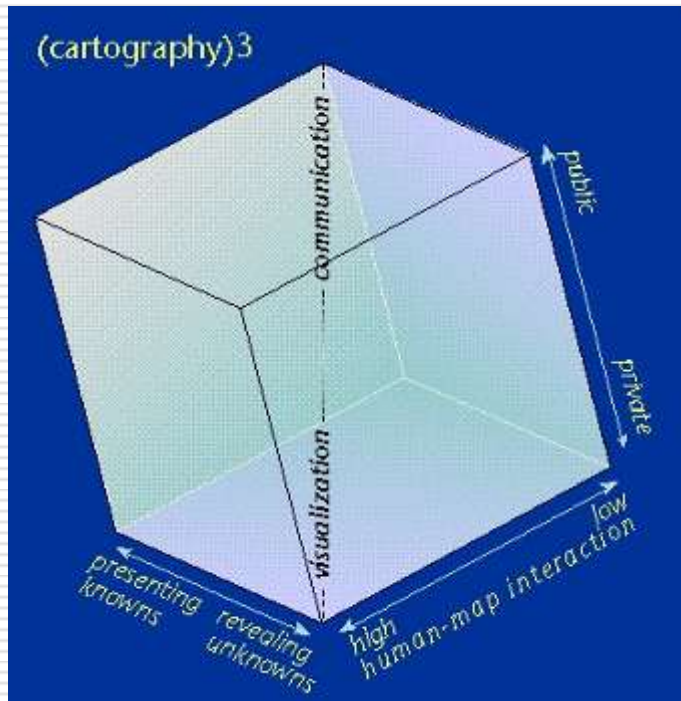
1973:

The **art, science and technology** of making maps, together with their study as scientific documents and works of art. In this context maps may be regarded as including all types of maps, charts and sections, three dimensional models and globes representing the Earth or any celestial body at any scale.

(nothing about digital at that time)



Cartography – *around 1995*



Two versions of Cartography.

The original offering showing the continuum between visualization (i.e., infinite possible views) and communication (i.e., one optimal view) (MacEachren 1994).

MacEachren & Kraak 1997.



Cartography – *Wikipedia (2010)*

Cartography (in Greek *chartis* = *map* and *graphein* = *write*) is the study and practice of making geographical maps.

Combining **science, aesthetics, and technique**, cartography builds on the premise that reality can be modeled in ways that communicate **spatial information** effectively.

The fundamental problems of cartography are to:

- ❑ Set the map's agenda and select traits of the object to be mapped. This is the concern of **map editing**. Traits may be physical, such as roads or land masses, or may be abstract, such as toponyms or political boundaries.
- ❑ Represent the terrain of the mapped object on flat media. This is the concern of **map projections**.
- ❑ Eliminate characteristics of the mapped object that are not relevant to the map's purpose. This is the concern of **generalization**.
- ❑ Reduce the complexity of the characteristics that will be mapped. This is also the concern of **generalization**.
- ❑ Orchestrate the elements of the map to best convey its message to its audience. This is the concern of **map design**.



Changes of the last centuries

The essence of the term cartography and cartographer has not changed too much till the end of the 18th century. The very first changes were caused by the invention of measuring equipments and the printing and engraving techniques (lithography).

The second change was caused by the time of the beginning of the regular military surveys, when the large-scale topographic mapping became a continuous task of the cartographers. Practically it was mainly a quantitative change to increase the number of topographers, but it was not a real qualitative development (or at least it was a slow development).



Changes of the last centuries

At that time the term *cartographer* was nearly the synonym of *mapmaker*. As the technical development continued, cartographers had to be familiar with new measuring techniques, although the term still included not only the **technological** and **scientific** part, but an **art** too.

The invention and rapid development of photography and its incorporation into cartography (including the invention of photogrammetry) and the development of offset printing at the end of the 19th century and the beginning of the 20th century were important milestones in the development of cartography.



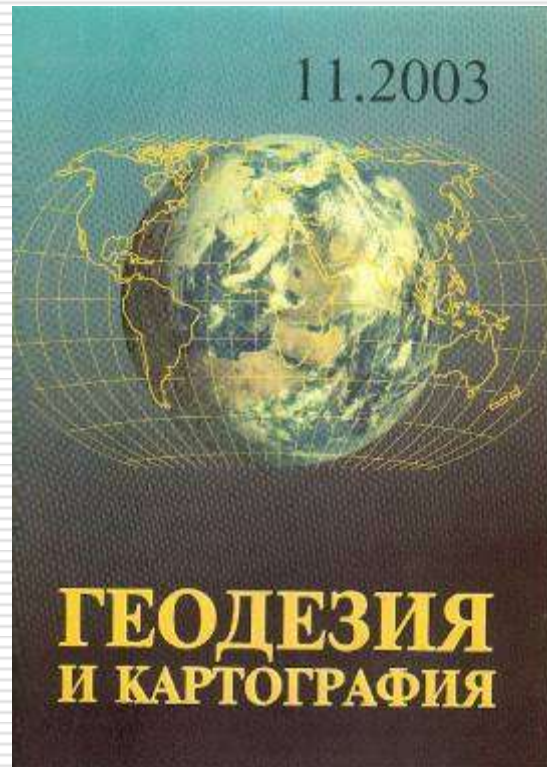
International organizations

- FIG (Fédération Internationale des Géomètres, the International Federation of Surveyors) was founded in 1878 in Paris.
- The International Society for Photogrammetry (ISP) was founded in 1910, in Austria. The Society changed its name in 1980 to the International Society for Photogrammetry and Remote Sensing (ISPRS).
- The International Geographical Union was established in Brussels in 1922. However, the history of international meetings of geographers is much longer. The first of a series of congresses met in 1871 in Antwerp.
- ICA was founded in 1959. The foundation of the association was closely connected with the substantial development of cartographic technology (plastic drawing materials, phototypesetting).



Cartographic magazines 1

- ❖ Globen (SWE) - 1922;
- ❖ Polski Przegląd Kartograficzny (POL) - 1923;
- ❖ Geodezia i kartografia (USSR) - 1925;
- ❖ Kartographische Mitteilungen (AUT) - 1930.



Cartographic magazines 2

- ❖ Most of the recent cartographic magazines were founded around 1950.
 - ❖ Cartographic Perspectives (USA) - 1947;
 - ❖ National mapping bulletin (AUS) - 1950;
 - ❖ Kartographische Nachrichten (GER) - 1950;
 - ❖ Geodézia és Kartográfia (HUN) - 1950;
 - ❖ World Cartography (UN) - 1951;
 - ❖ Revista cartografica (ARG) - 1952;
 - ❖ Cartography (AUS) - 1954;
 - ❖ Geodeticky a kartograficky obzor (CZE) - 1955;
 - ❖ Map (JAP) - 1962;
 - ❖ The Cartographic Journal (GBR) - 1964;
 - ❖ Cartographic Helvetica (SUI) - 1969;
- ❖ New magazines were founded in the GIS era (1980-).
 - ❖ GIM
 - ❖ Location based services



Cartographic education/institutes

- ❖ The first scientific organization of cartography, the Swedish Cartographic Society was formed in 1908.
- ❖ The first independent cartographic courses in higher education, MIIGAiK, Moscow in 1923.
- ❖ Institut für Kartografie, ETH Zürich (SUI) - 1925
- ❖ German Cartographic Association - 1937.



Computer ages

- ❖ After the integration of photogrammetry into the tools of cartography, the next challenge was the **remote sensing**.
- ❖ During the cold war (1945-1991) it was difficult to get reliable and “mappable” information on certain countries, so the remote sensing technologies were accepted immediately in cartography. The satellite images also helped the cartography to **decrease the role of secrecy**.
- ❖ Cartography was very sensitive to adopting **computer technology**. This process affected all parts of cartography, but new professions (like remote sensing, geographic information system, global positioning system, location-based services) have also come into existence as the technology has managed to serve specific demands.
- ❖ It is also exciting to investigate the process how the terms **GIS**, geoinformatics or GI Science have changed the term ‘cartography’.
- ❖ While **cartographers** were still treated as **mapmakers** (map drawers) 40-50 years ago, the computer has changed it totally.



Keyword: digital

- ❖ As soon as the technology made it possible (scanner, hard-disk capacity, hardware and software environment), the **digitizing of existing paper maps** (state cadastral and topographic maps) started.
- ❖ At the beginning only state organizations managed to use the new technology, but as the information technology become more affordable (**PC, 1981**) private companies started to present on that market.
- ❖ Having more data arisen in digital form, a new technology, the **GIS** was invented.
- ❖ We still have areas where the technology is still working on the substitution or facilitation of human work (like **generalization, updating**).
- ❖ These days **cartographers are not only mapmakers** or very few of them are really produces (paper) maps, but cartographers must be familiar with different types of software (GIS, data management, programming etc.).



Visualization

- ❖ As soon as we have **data in digital form** we can use the advantages of computers.
- ❖ After investing lot of money and resources into this technology, it become more and more evident that one of the directions of the technological development will be the **visualization**. The computer printing technology is continuously developing and nowadays it is good enough to replace the traditional technology. The wide use of GIS and the print-on-demand function simply made most of the official **paper map production** (especially cadastral and topographic maps) totally **obsolete**.
- ❖ The **web** era made additional changes in this area. Everybody can be a map maker (but not cartographer) who can combine his/her data with the on-line maps: the tools are smart, although to select the best representation methods still requires special knowledge.
- ❖ Visualization is extremely important if we are using small **portable** devices (PDA, mobile phone).



The term cartographer in the higher education

- ❖ In higher education, the names of different institutes and departments have skipped the traditional term 'cartography/cartographer' and begun to include more modern terms like **geomatics, geoinformatics, GI science**. The process practically was carried out in two steps: first combined the modern term with the traditional one and in the second step the traditional term has been dropped.
- ❖ The researchers and university teachers were very open to accepting new technologies. ICA Commission on Education and Training survey (2002): cartography 23 times, GIS 19 times, geomatics 14 times.
- ❖ If we just check the name of the skill given by the BSc or MSc course it looks that the **GIS expert** is much more favourable in certain countries than the cartographer.
- ❖ Due to the rapid technological development if somebody wants to call himself/herself cartographer, it requires life-long learning. So nowadays the term cartographer also means **(this is only my interpretation) the capability to continuously integrate and use new technologies.**



Statistics on ICC papers

- ❖ The International Cartographic Conference (ICC) is the most important scientific event for cartographers.
- ❖ More and more papers of the ICC's are dealing with new topics, while some traditional topics (like map drawing, reproduction techniques) nearly totally disappeared or became the part of the history of cartography.
- ❖ The main topics of the International Cartographic Conferences have changed in these times to clearly show how the information technologies were incorporated into cartography.
- ❖ We have to understand and accept that cartography has never been so widely used that it could influence the development of information technology, although special hardware and software for cartographic application were developed when the technology has reached a certain level.



Statistics on ICC papers

I have made a simple analysis on the Proceedings of the last six ICC's. I calculated the most frequently used words in the full texts of the papers (ICC 1999-2009).

For comparison I also digitized the abstracts of the ICC 1989, Budapest (full texts of papers was not published, but the abstract book was 349 pages).

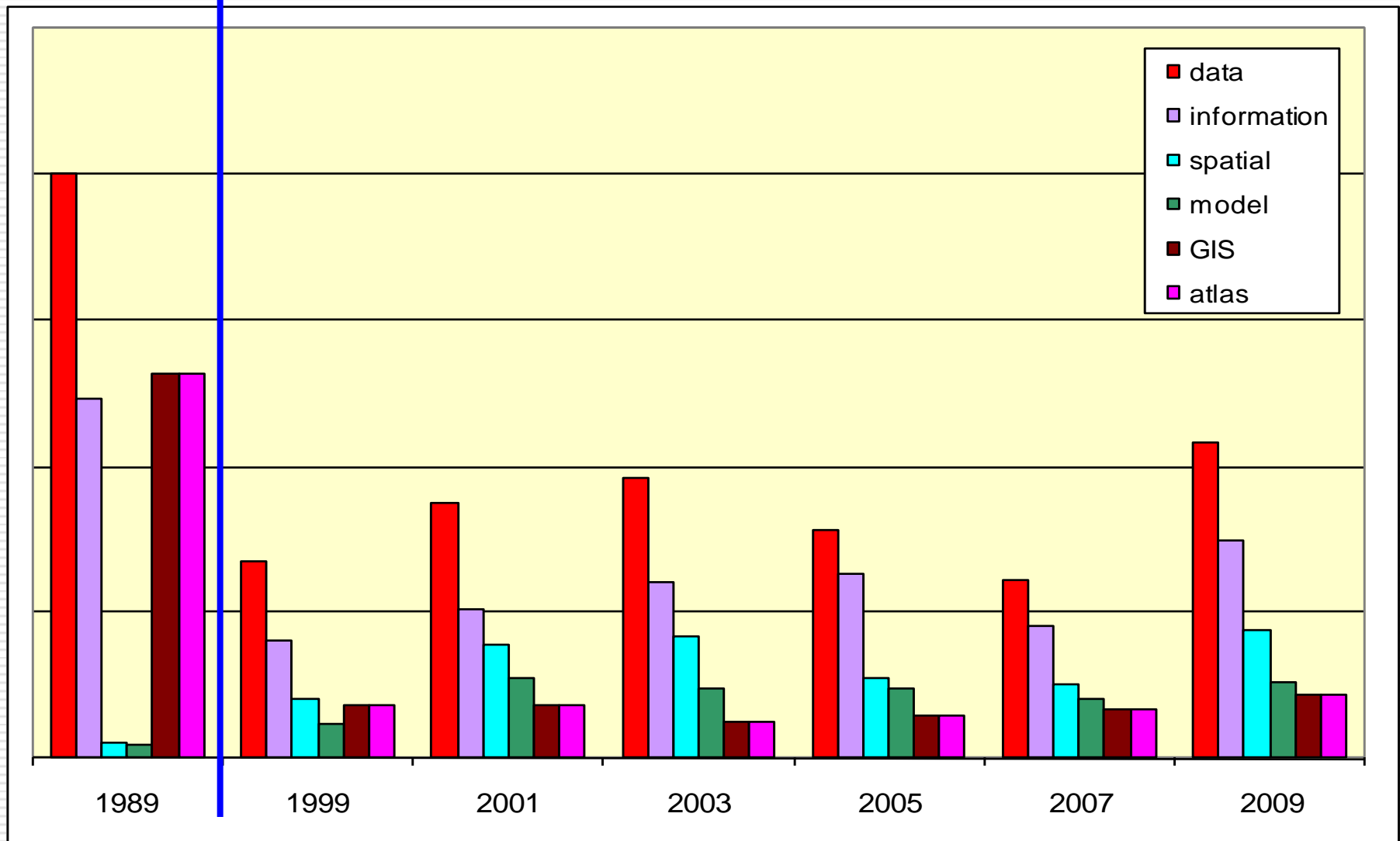
The result is very informative: even in such a short period we can trace the rapid development of cartography.

- ❖ 1989, Budapest (abstracts only)
- ❖ 1999, Ottawa: *Touch the past, visualize the future*
- ❖ 2001, Beijing: *Mapping the 21st century*
- ❖ 2003, Durban: *Cartographic Renaissance*
- ❖ 2005, A Coruña: *Mapping approaches into a changing World*
- ❖ 2007, Moscow: *Cartography for everyone and for you*
- ❖ 2009, Santiago de Chile: *The World's Geo-Spatial Solutions*

Only English language papers were processed.



Comparison (the most frequent terms)



New terms in cartography (based on ICC2011 topics)

- Location Based Services and Ubiquitous Cartography
- Volunteered geographic information, Crowdsourcing and Critical Cartography
- GeoInformation retrieval
- Generalisation and Multi-scale Representation
- Spatio-Temporal modelling and issues (3D, simulation)
- Maps, GIS & Sustainable development
- Map and GeoDB Production Techniques
- Open Source Technology and Web Services
- ***Web 2.0 in cartography***



Web evolution



<http://www.bloggiando.com/wp-content/uploads/2007/06/internet-italiani-non-usano.jpg>



Origins of the web – the concept



<http://media-2.web.britannica.com/eb-media/55/128755-003-146F791B.gif>

Paul Otlet (1868-1944)

The Mundaneum (the analog Google) was created in 1910 out of the initiative of two Belgian lawyers. Paul Otlet and Henri La Fontaine aimed to gather together **all the world's knowledge** and classify it according to a system they developed called the Universal Decimal Classification.



<http://graphics8.nytimes.com/images/2008/06/17/science/17mund.4-650.jpg>



Origins of the web – the concept



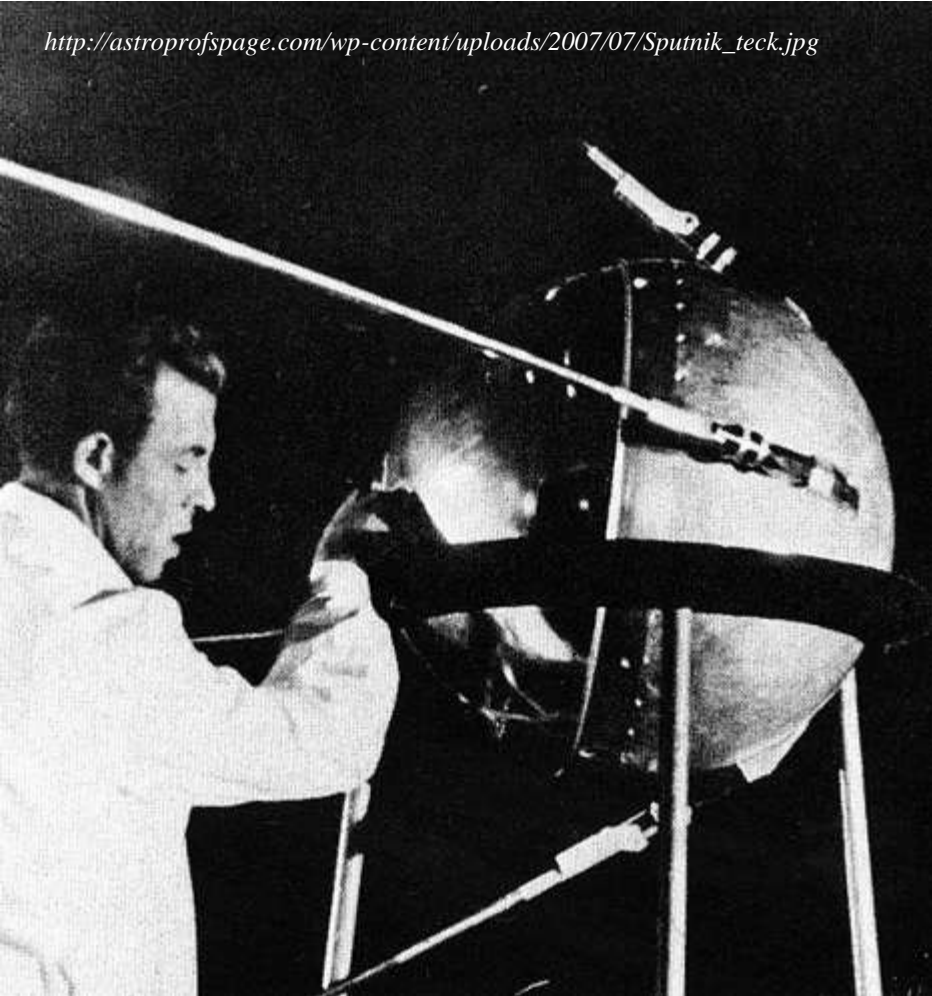
http://liftlab.com/think/laurent/files/2008/10/vannevar_bush.jpg

Vannevar Bush (1890-1974)
He was an American engineer and science administrator known for his work on analog computing, his political role in the development of the atomic bomb as a primary organizer of the Manhattan Project, and the idea of the **memex** (1944), an adjustable microfilm-viewer which is somewhat analogous to the structure of the World Wide Web. As Director of the Office of Scientific Research and Development, Bush coordinated the activities of some six thousand leading American scientists in the application of science to warfare.



Start of the internet

http://astroprofspage.com/wp-content/uploads/2007/07/Sputnik_teck.jpg



Sputnik 1 (1957)

The American answer - after this shock - was the form of ARPA (Advanced Research Projects Agency). The actual name is Defense Advanced Research Projects Agency (DARPA) is an agency of the United States Department of Defense responsible for the development of new technology for use by the military.

None of the most important weapons transforming warfare in the 20th century - the airplane, tank, radar, jet engine, helicopter, electronic computer, Global Positioning System (GPS) and Internet technologies, not even the atomic bomb - owed its initial development to a doctrinal requirement or request of the military.



World Wide Web



http://obamacman.com/wp-content/uploads/2009/08/Tim-Berners-Lee-World-Wide-Web-Inventor-Apple-Mac-User_April_2009.jpg

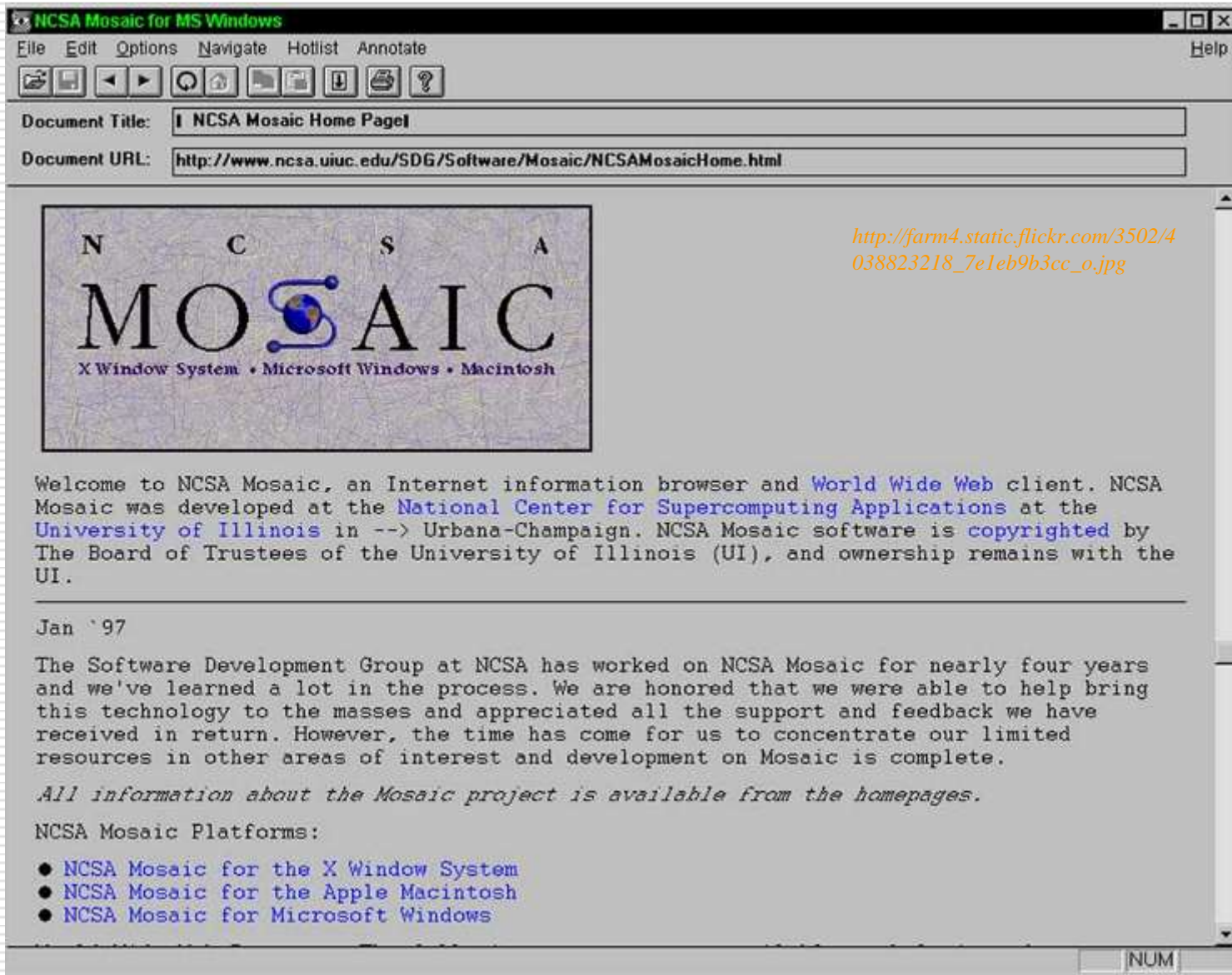
Tim Berners-Lee (1955-)

While an independent contractor at CERN in 1980, Berners-Lee proposed a project based on the concept of hypertext, to facilitate sharing and updating information among researchers.

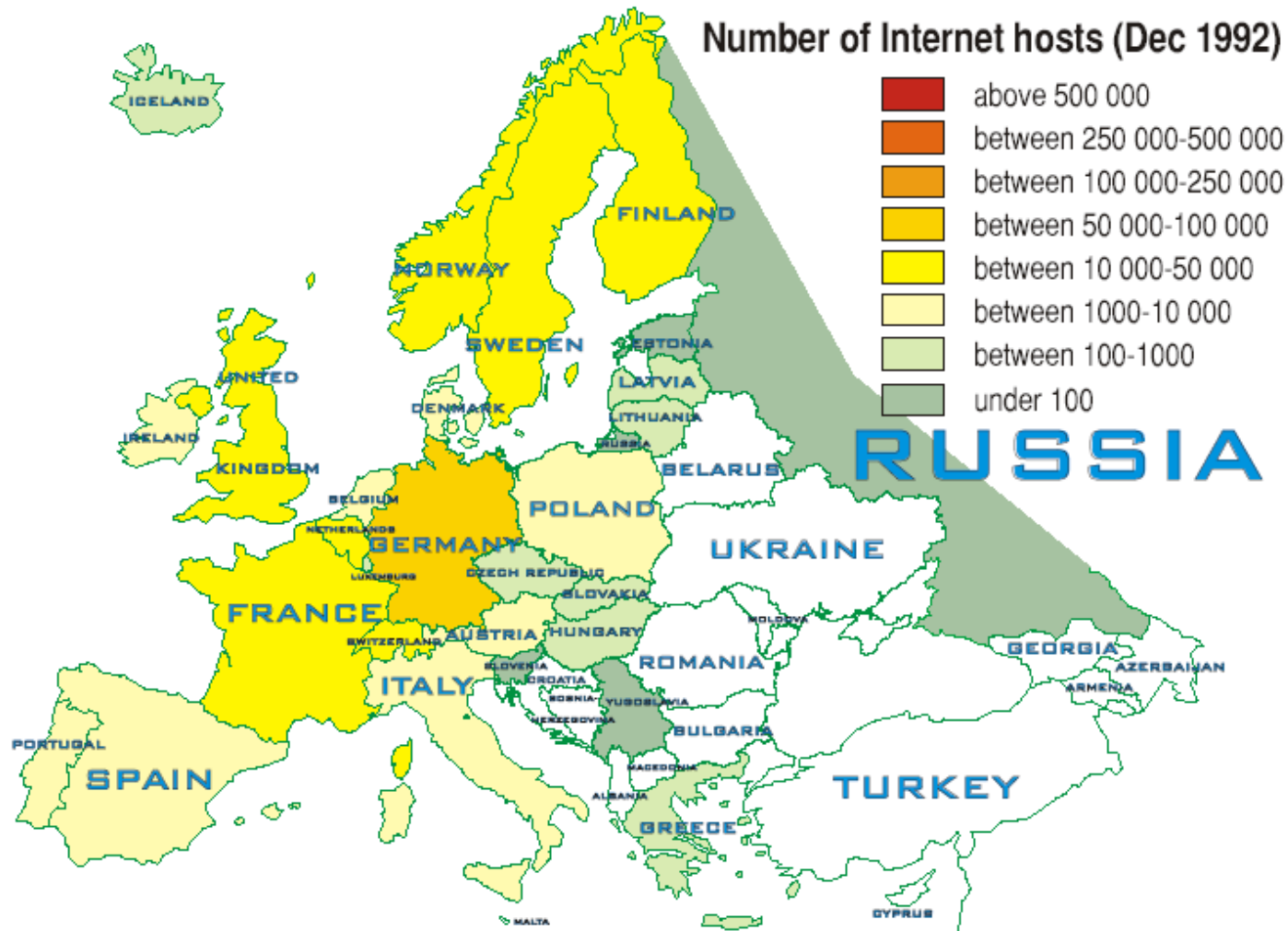
In 1989, CERN was the largest Internet node in Europe, and Berners-Lee saw an opportunity to join hypertext with the Internet. He wrote his initial proposal in March 1989, and in 1990 he produced a revision which was accepted by his manager. He used similar ideas to those underlying the Enquire system to create the World Wide Web, for which he designed and built the first Web browser.



Mosaic – the first web browser



Internet distribution (1992)

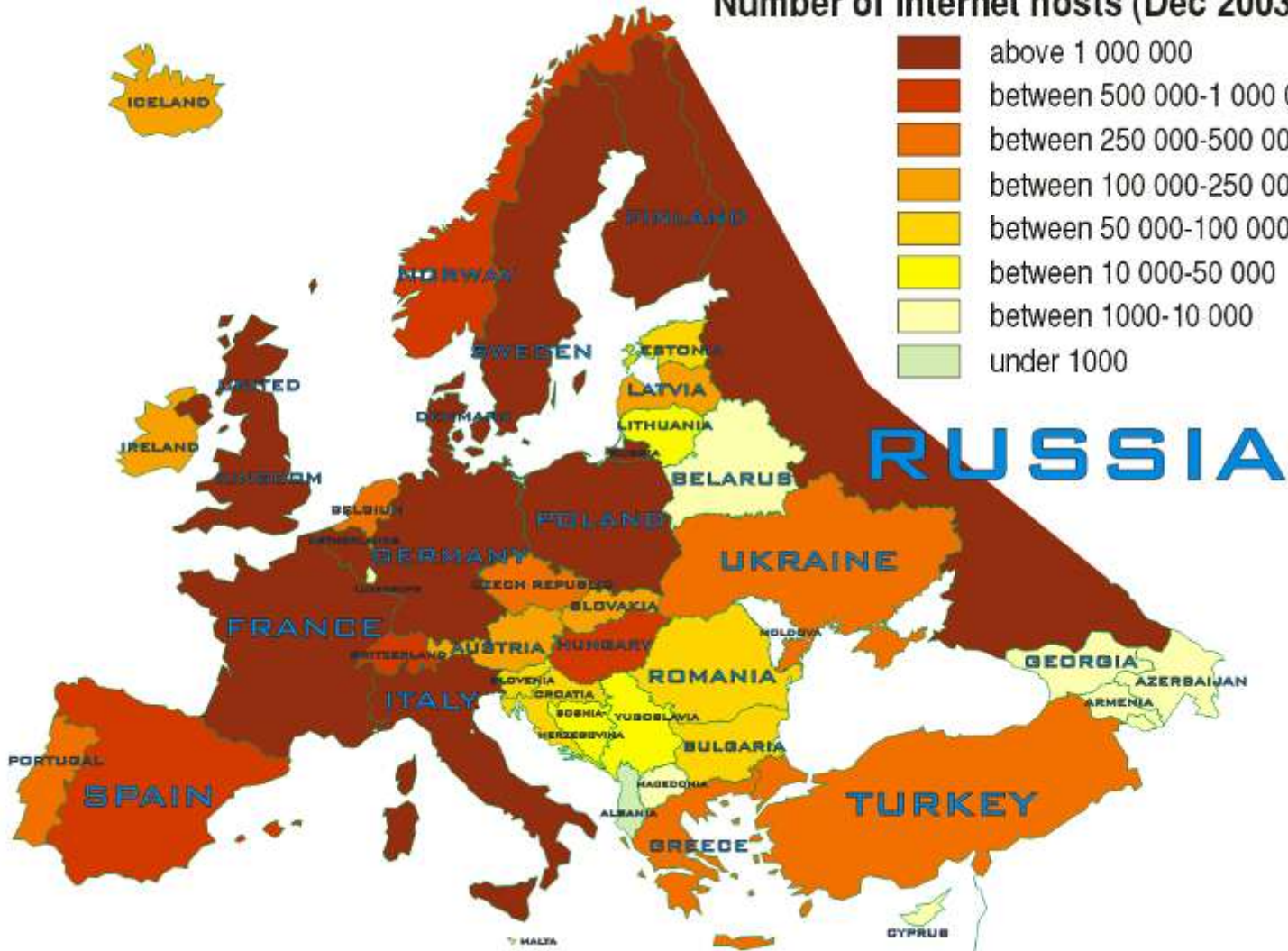
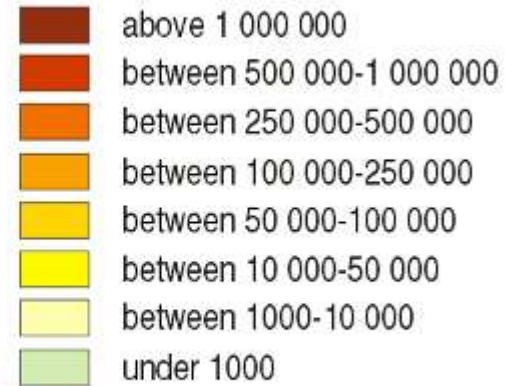


RIPE hostcount data



Internet distribution (2003)

Number of Internet hosts (Dec 2003)



RIPE hostcount data



Internet distribution (2010)

Country	Total IPs
UNITED STATES	1,515,634,700
CHINA	268,271,984
UNITED KINGDOM	204,549,159
JAPAN	184,943,774
GERMANY	111,641,023
KOREA, REPUBLIC OF	100,267,953
FRANCE	87,612,626
CANADA	79,466,221
ITALY	45,512,603
NETHERLANDS	44,432,964
AUSTRALIA	44,333,456
BRAZIL	38,202,717
RUSSIAN FEDERATION	35,250,784
TAIWAN	30,437,613
MEXICO	27,876,415
INDIA	26,255,222
SPAIN	25,714,986
SWEDEN	25,469,933
SWITZERLAND	21,440,622
SOUTH AFRICA	17,129,264

POLAND	16,269,099
NORWAY	14,693,058
FINLAND	13,059,956
VIET NAM	12,586,355
TURKEY	11,998,085
DENMARK	11,878,608
INDONESIA	11,809,000
AUSTRIA	11,204,100
BELGIUM	10,932,876
ROMANIA	10,556,035
ARGENTINA	10,126,060
HONG KONG	9,762,452
UKRAINE	7,742,536
CZECH REPUBLIC	7,524,736
ISRAEL	7,260,001
THAILAND	6,888,765
NEW ZEALAND	6,777,598
COLOMBIA	6,302,687
IRELAND	5,962,213
MALAYSIA	5.832.328

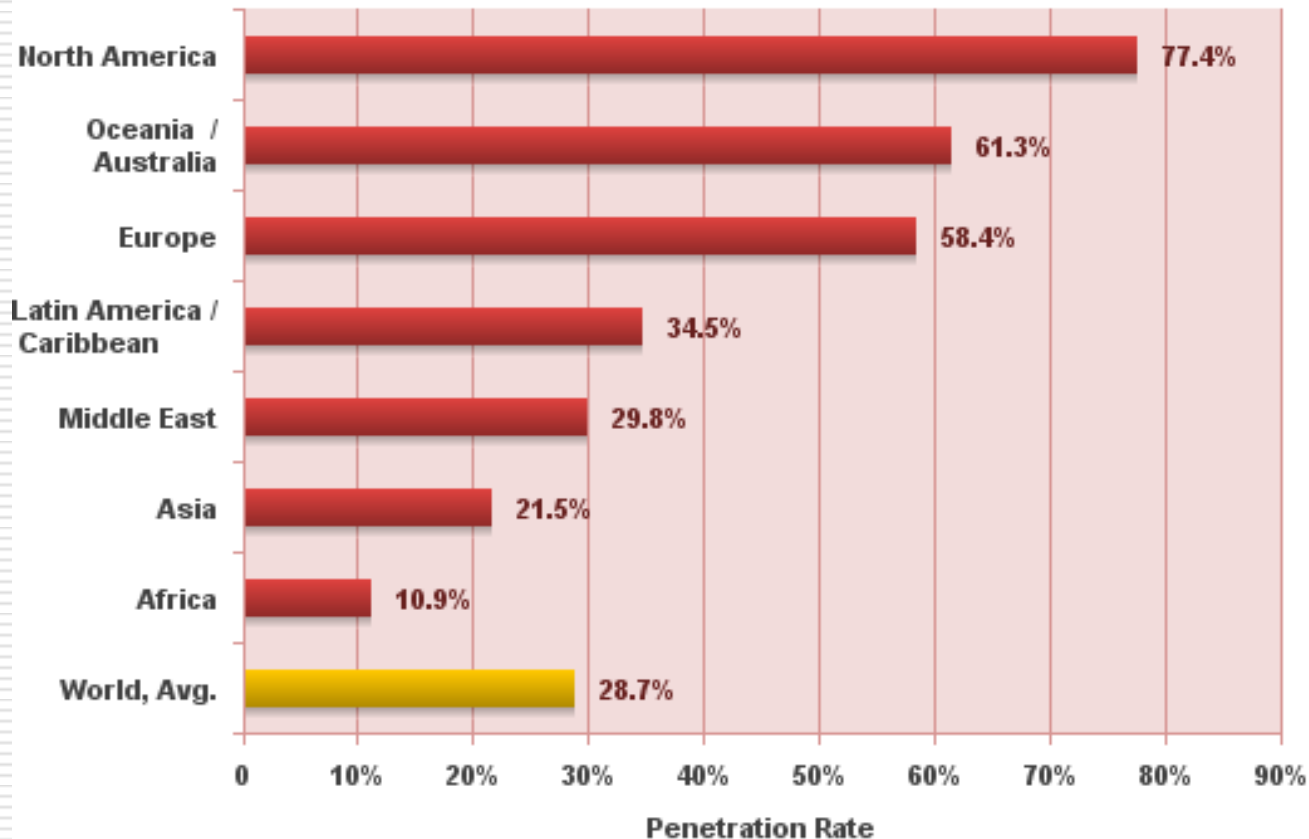
CHILE	5,767,165
PORTUGAL	5,503,269
EGYPT	5,444,563
GREECE	5,321,920
SINGAPORE	5,103,424
PHILIPPINES	4,785,947
HUNGARY	4,765,897
VENEZUELA	4,635,036
BULGARIA	3,806,056
SAUDI ARABIA	3,582,542
PAKISTAN	2,977,085
IRAN, ISLAMIC REPUBLIC OF	2,753,918
TUNISIA	2,733,572
UNITED ARAB EMIRATES	2,597,075
SLOVAKIA	2,392,587
PERU	2,203,592
LITHUANIA	2,173,342
SLOVENIA	2,005,357

<http://www.domaintools.com/internet-statistics/country-ip-counts.html>



Internet distribution (2010)

World Internet Penetration Rates by Geographic Regions - 2010



Source: Internet World Stats - www.internetworldstats.com/stats.htm
Penetration Rates are based on a world population of 6,845,609,960
and 1,966,514,816 estimated Internet users on June 30, 2010.
Copyright © 2010, Miniwatts Marketing Group



Web 2.0 in general

Darcy DiNucci (1999): „The Web we know now, which loads into a browser window in essentially static screenfulls, is only an embryo of the Web to come. The first glimmerings of Web 2.0 are beginning to appear, and we are just starting to see how that embryo might develop. The Web will be understood not as screenfulls of text and graphics but as a transport mechanism, the ether through which interactivity happens...”

The concept of web 2.0 was used next time in 2003-04 at a conference where the organizers (O'Reilly and CMP Media) focused on the new generation web services in a conference brainstorming session.



Web 2.0 in general

It is really difficult to formulate the term and there is still a huge amount of disagreement about just what web 2.0 means, with some experts characterizing it as a meaningless marketing buzzword, and others accepting it as the new term.

Although Web 2.0 is not a clear and easily definable term (the phrase may hint at an improved form of the World Wide Web), we can list new features of the web which has formed this new term.

- Mostly not simple concrete applications, but rather **philosophies**.
- „**Network as platform**” – delivering (and allowing users to use) applications entirely through a browser.
- Users owning the data on a site and exercising control (maintain and distribute) over that data.
- An architecture of **participation** that encourages users to add value to the application as they use it.
- A rich, interactive, **user-friendly interface**.
- **Social-networking** aspects.



Web 2.0 elements

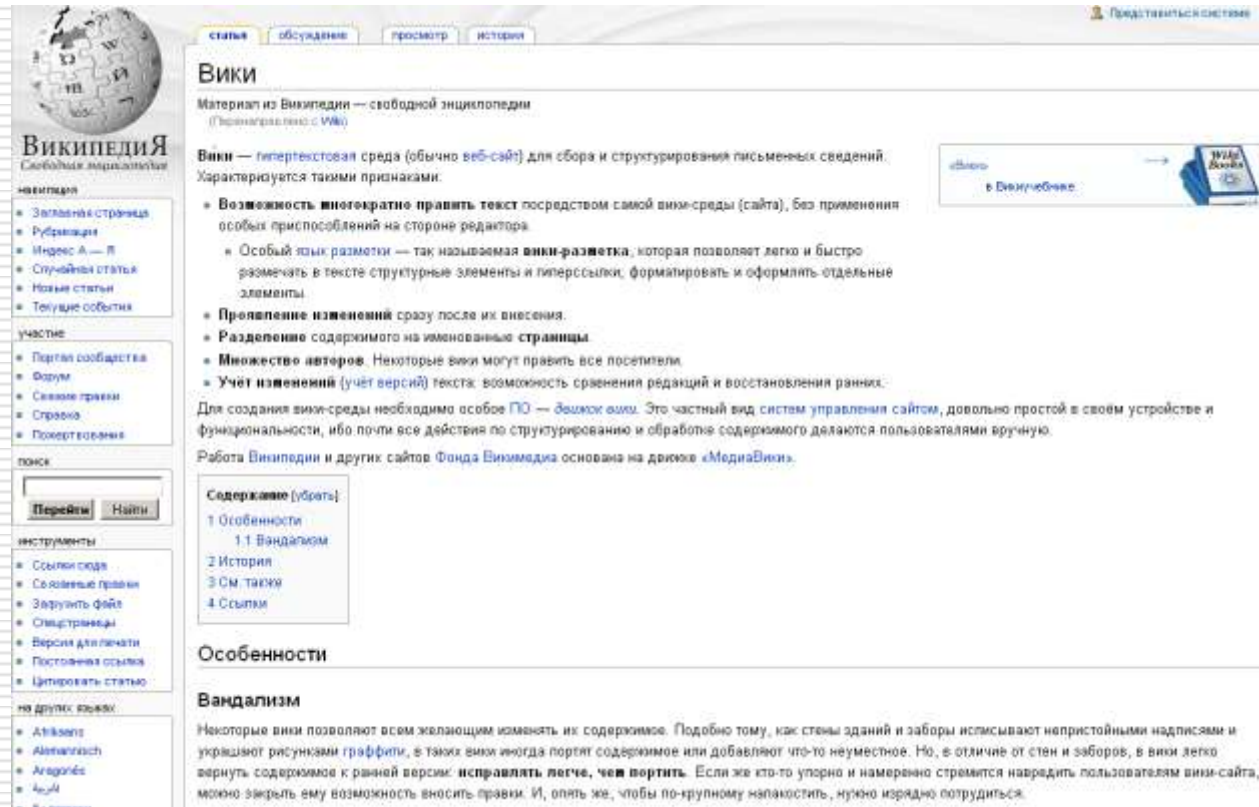


Web 2.0 elements: wiki

A wiki is a collaborative website which can be directly edited by anyone with access to it (Wikipedia was formally launched on January 15, 2001, as a single English-language edition at www.wikipedia.com)

„Most people, when they first learn about the wiki concept, assume that a website that can be edited by anybody would soon be rendered useless by destructive input. It sounds like offering free spray cans next to a grey concrete wall. The only likely outcome would be ugly graffiti and simple tagging, and many artistic efforts would not be long lived. Still, it seems to work very well.”

[Lars Aronsson, 2007]



Вики

Материал из Википедии — свободной энциклопедии

(Просмотрено с ВМ)

Вики — гипертекстовая среда (обычно веб-сайт) для сбора и структурирования письменных сведений. Характеризуется такими признаками:

- **Возможность многократно править текст** посредством самой вики-среды (сайта), без применения особых приспособлений на стороне редактора.
- Особый язык разметки — так называемая **вики-разметка**, которая позволяет легко и быстро размечать в тексте структурные элементы и гиперссылки, форматировать и оформлять отдельные элементы.
- **Проявление изменений сразу после их внесения.**
- **Разделение содержимого на именованные страницы.**
- **Множество авторов.** Некоторые вики могут править все посетители.
- **Учёт изменений (учёт версий)** текста: возможность сравнения редакций и восстановления ранних.

Для создания вики-среды необходима особое ПО — *движок вики*. Это частный вид систем управления сайтом, довольно простой в своем устройстве и функциональности, ибо почти все действия по структурированию и обработке содержимого делаются пользователями вручную.

Работа Википедии и других сайтов Фонда Викимедиа основана на движке «МедиаВики».

Содержание (убрать):

- 1 Особенности
 - 1.1 Вандализм
- 2 История
- 3 См. также
- 4 Ссылки

Особенности

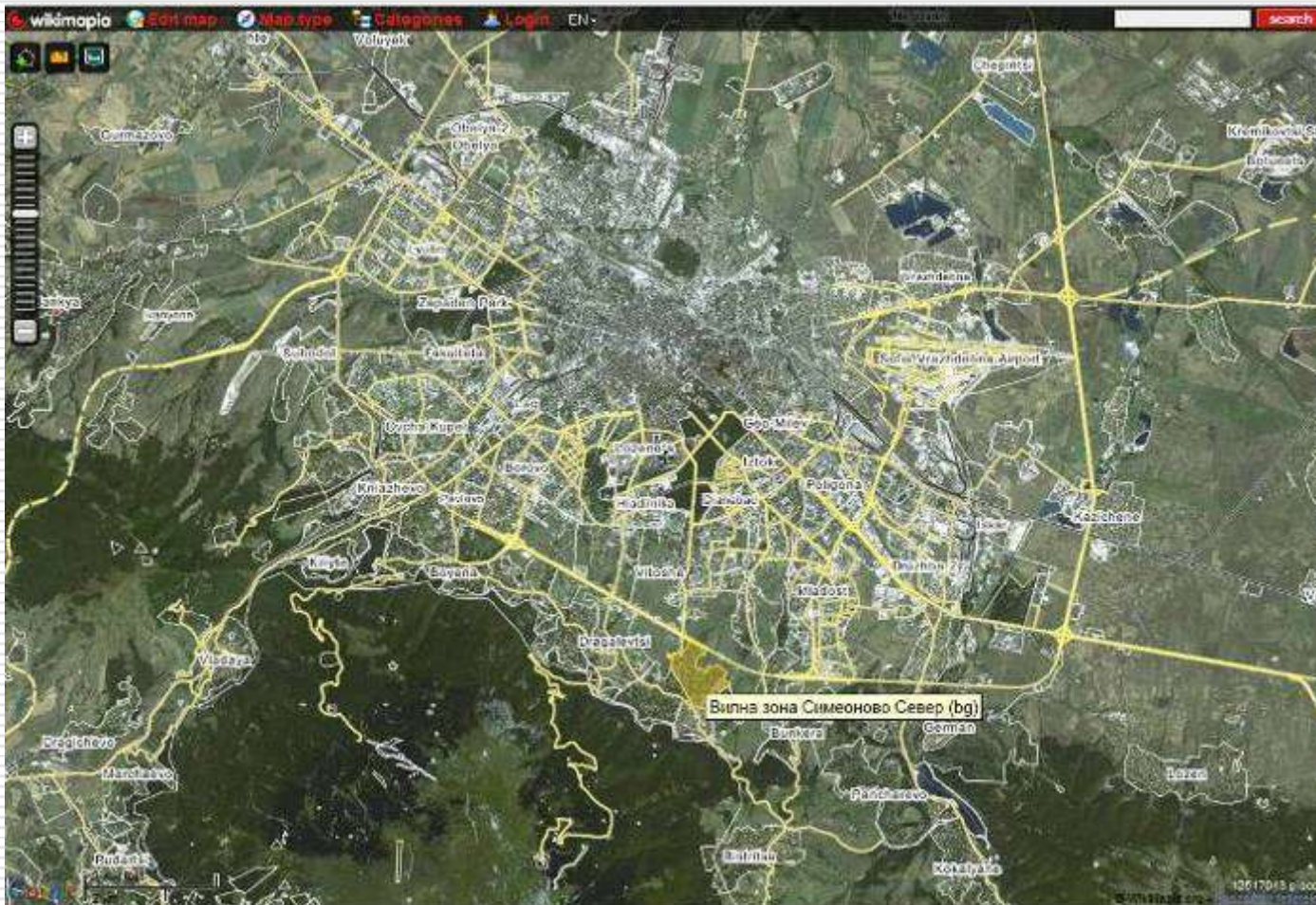
Вандализм

Некоторые вики позволяют всем желающим изменять их содержимое. Подобно тому, как стены зданий и заборы испещряют непристойными надписями и украшают рисунками граффити, в таких вики иногда портят содержимое или добавляют что-то неуместное. Но, в отличие от стен и заборов, в вики легко вернуть содержимое к равной версии: **исправлять легче, чем портить**. Если же кто-то упорно и намеренно стремится навредить пользователям вики-сайта, можно закрыть ему возможность вносить правки. И, опять же, чтобы по-крупному запалковать, нужно изрядно потрудиться.



Wiki in cartography

The project Wikimapia (Let's describe the whole World) was launched in May 2006 to combine Google Maps with a wiki system, allowing users to add information to any location (mostly areas) on Earth.



<http://wikimapia.org/>



Web 2.0 elements: blog

Blogs provide commentary or news on a particular subject, as personal online diaries; they can be part of a wider network of social media.

A typical blog combines text, images, and links to other blogs, web pages, and other media related to its topic.


The ability for readers to leave comments in an interactive format is an important part of many blogs.

<http://islamic-cartography.blogspot.com/>

Islamic Cartography علم الخرائط الإسلامي


Thursday, August 21, 2008
The world map in the muqaddima
more [here...](#)
posted by [Tarek 12:59](#) @ طارق PM 10 comments

Thursday, August 14, 2008
Maps as political arguments



When visiting one of the cartographic collections in Istanbul some years ago I was told that there is some fear that some Arabs might use Ottoman maps as "proofs" in political conflicts... they pointed specifically to Iraqi use of Ottoman maps in the gulf crisis in the summer of 1990 in

About Me



Name: طارق الكحلأوى
Location: New Jersey
New Jersey, United States

Tarek grew up in the city of Rades-Tunisia... Currently an Assistant Professor at Rutgers University (a joint position in the Art History and History departments)... He graduated from the University of Tunis (Bach. & DEA in history and archeology) and University of Pennsylvania (PhD in history of art)...
طارق نشأ في مدينة رادس-الجمهورية التونسية... أستاذ في جامعة روتجرز (فلسفي التاريخ و تاريخ الفن)... تلقى تكوينه الجامعي في جامعة تونس (كلية 9 أبريل، إجازة و دراسات مهنية في التاريخ و الآثار) و جامعة (بنسلفانيا) رسالة دكتوراة في تاريخ الفن
<http://arthistory.rutgers.edu/faculty/bios/kahlaoui/> http://history.rutgers.edu/index.php?option=com_content&task=view&id=2138&Itemid=140

[View my complete profile](#)

Links

- ◆ [Map History Gateway](#)
- ◆ [Photos of Islamic Cartography](#)
- ◆ [History of Cartography Bern 2007 Conference](#)
- ◆ [Coordinates An Online Journal](#)
- ◆ [Bibliography of Theoretical studies](#)
- ◆ [Other Cartography Blogs: in English](#)



Cartography blogs

Home Book About Learn More Search

MAKING MAPS: DIY CARTOGRAPHY

Resources and Ideas for Making Maps

Feeds: Posts Comments



A Crooked Stick Straightened: Map Making as Juvenile Delinquent Reform

November 17, 2010 by John Krygier

“From a slouching, unkempt, uncouth, shambling, horrid boy, he emerged into being a respectable, neat, tidy, order-loving, painstaking, and industrious young man.”

– Miss Winthrop, 1888



I had an ugly, uncouth boy in my room, and he gave me more trouble

<http://makingmaps.net/>

RECENT POSTS

A Crooked Stick - Straightened: Map Making as Juvenile Delinquent Reform 1910 | Topographic Maps | Map Symbols | Egypt Out Now | Denis Wood | Everything Sings
A Discourse on Map Pins and Pinnage
New Atlas | Denis Wood | Everything Sings

TOP POSTS

Custom Map Symbols in Google Maps
Denis Wood: A Narrative Atlas of Boylan Heights
Making Flat Earth Globes
Perceptual Scaling of Map Symbols
More Principles of Map Design

<http://terkepem.blogspot.com/>

Írások megjelenése | Következő blog

TÉRKÉPEK

PTOLEMAJÓZSÁTÓL A GOOGLE MAPS ÉPT-IG

2010. NOVEMBER 27. SZOMBAT

Google Street View

Megint előkerült a Street View kérdése hazinkban. Az index.hu n megjelent cikk szerint enyhült az ellenállás az adatvédelmi biztos részéről. Érdekes megnézni a cikk mellett elérhető szavazás eredményét (2010.11.27 17:16).

Legyen Magyarországon Street View?

- Legyen: 7633
- Ne legyen: 1030
- Legyen, csak én ne legyenek rajta: 1102

Ruhában járok, lakótelepen lakom (lőpésőház előtt megy el majd az autó, bár az Norc nem jött be élénk) így nincs problémám ezzel :)

ELÍGYEZTE - FRACJETER TAMÁS RÉTUM: 17:27 0 VEGY ELGYEZTE

A RÉFOLYÓZÁS MINTÁTO LINKJE CÍMÉNY: GOOGLE STREET VIEW, MAGYARORSZÁG

Vásárlóerő Index

Szokás szerint elsőként a GfK jelenik meg a legfrissebb vásárlóerő adatbázissal, majd ezt követi az CID. Továbbra is vannak kérelmeim az első helyezettekkel, most éppen Csopakkal. Az adatbázis mellé nem érhető el a pontos módszertan, így nem tudható hogyan készült, miért éppen Csopak áll az első helyen.

A budapesti kerületek és az agglomeráció tartozó települések megszokottak az első húszban, de néha bekerülnek érdekes települések: Csemő, Terezistenye. Csopak nem rossz hely, de tartozhat a "Csemő kategóriába", mert itt is nagyon sok gépkocsi van, ami miatt "elszállhat" a település.

0520 MEGI

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[Tweet this](#)

This has been shared 16 times.

[Get more content by your tag](#)

KERESS ÉS ESEM A BLOGGAL

Hasznosított: Google™

BLOGARCHÍVUM

▼ 2010 (220)

▼ november (24)

[Google Street View](#)

[Vásárlóerő Index](#)

[A pályák esélye](#)

[Író-olvasó találkozók 2.0](#)

[Életem legdrágább autójában](#)

[Író-olvasó találkozók](#)

[www.geoshop.hu](#)

[Az elmúlt ezer év határai](#)

[Kinek cűd: Rensűt, TomTom, grafikus?](#)

[A hír igaz](#)

[Óvatosan a navigációval!](#)



Microblog

Yamm!
magyar Twitter közösség

Trendek

Twitterrezz a Yamm-on!

EGY HELYEN A HÍRSESÉGKÉ, A BARÁTOK, ÉS MINDEN MAGYAR VIDEÓK, FOTÓK A TWITTEREN ELŐZMÉNYEK KÖVETÉSÉRE. MAGYAR "TRENDING TOPICS"



Ha még nincs Twittered, regisztrálj itt
vagy

PRÓBÁLD KI!

geocucc2

RT @indextech: Nicaragua megszállta Costa Ricát a Google Maps hibája miatt: Letáboroztak, kifűzték a zászlót, megfeszítőták a... http://index.hu/tech/2010/11/05/nicaragua_megszallta_costa_ricat_a_google_maps_hibaja_miatt/
21 hónapja Válasz RT Lajk

Won the battle for this location [<http://warsquare.r10.railsrubble.com/>] (@ Corvin Tér) <http://4sq.com/bkPYHG>
1 hónapja Válasz RT Lajk Térkép Várterület

Won the battle for this location [<http://warsquare.r10.railsrubble.com/>] (@ Nav N Go) <http://4sq.com/dnNaab>
1 hónapja Válasz RT Lajk Térkép Várterület

I just ousted sosbp as the mayor of somlói úti étkezde on @foursquare! <http://4sq.com/9RD2oS>
1 hónapja Válasz RT Lajk Térkép Újéada

@goldenblog #gbtv Szavazok a Goldenblog Twitter Versenyen: 1. @hh 2. @idokep 3. @kreativmag
4 hónapja Válasz RT Lajk

<http://maps.google.com/maps/mpl?moduleurl=http://www.blumoon.ee/~aht/touristiness-map/touristiness-map.xml>
8 hónapja Válasz RT Lajk

jó válogatás <http://www.flexijourney.com/blog/66-beautiful-small-cities-towns-in-europe/>



31 barát
16 követő
66 tweet

Geocucc2
geocucc2
383 napja regisztrált

Legutóbbi fotók



Barátok



<http://yamm.hu/geocucc2>



Microblog (Twitter)

twitter

Have an account? [Sign in](#)

Get short, timely messages from Software Cartography.

Twitter is a rich source of instantly updated information. It's easy to stay updated on an incredibly wide variety of topics. [Join today](#) and follow [@codemap](#).

[Sign Up](#)

Get updates via SMS by texting [follow codemap](#) to your local code. Codes for other countries

codemap

Name Software Cartography
Location Plugged in your Eclipse.
Web <http://scg.unibe...>
Bio Your roadmap to Software!

146 following 92 followers 7 listed

Tweets 85

Favorites

Lists
[@codemap/team](#)
[View all](#)

Following

[View all](#)

RT [@akuhn](#): busy with upcoming [#softvis2010](#) submission, working title "Embedding spatial visualization in the IDE: an explorative user study"
2:15 AM Apr 26th via Seismic

RT [@mvandermeuter](#): NY Times, map of European airports affected by the volcanic ashcloud <http://tinyurl.com/y7ewnt5> [#ashtag](#)
7:19 AM Apr 18th via Seismic

The "google annotations gallery" <http://bit.ly/c5aWrh> could be really useful for codemap! showing annotations on the map etc... /via [@deifemi](#)
1:00 AM Apr 1st via Seismic

I'd love doing the same for software history: geospatial evolution of four stories <http://bit.ly/9HGr9n> /via [#strangemaps](#)
9:32 AM Mar 29th via Seismic

<http://twitter.com/codemap>



Web 2.0 elements: mashup

Mashup, a website or web application that combines content from more than one source. Content used in mashups is typically sourced from a third party via a public interface or **API**, other methods of sourcing include Web feeds.

GoogleMaps, eBay, Amazon, Flickr, YouTube, Yahoos API are the most common sources.

MAPJACK
San Francisco (beta)

See the city:

Enter street address

Example: 155 Geary St.

Go

Hot Spots

Pier 39, Chinatown, Maritime Park, & The Embarcadero

Coverage Update

Just added: Golden Gate Park
More coming soon!

Tips

You see what Jack sees.
Click blue dot to jump there.
Blue buttons turn and move.

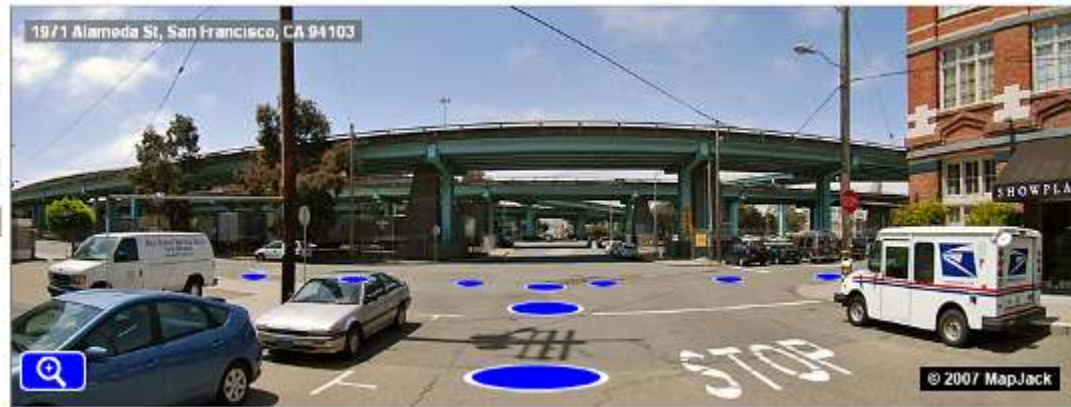
Send the link below to your friends to share the experience!

San Francisco Attractions

Things to do and places to see
Hotel discounts from only \$48.95

www.hotels.com

Ads by Google



Link to where Jack is: <http://www.mapjack.com/MLHM/WGA3/F&E>

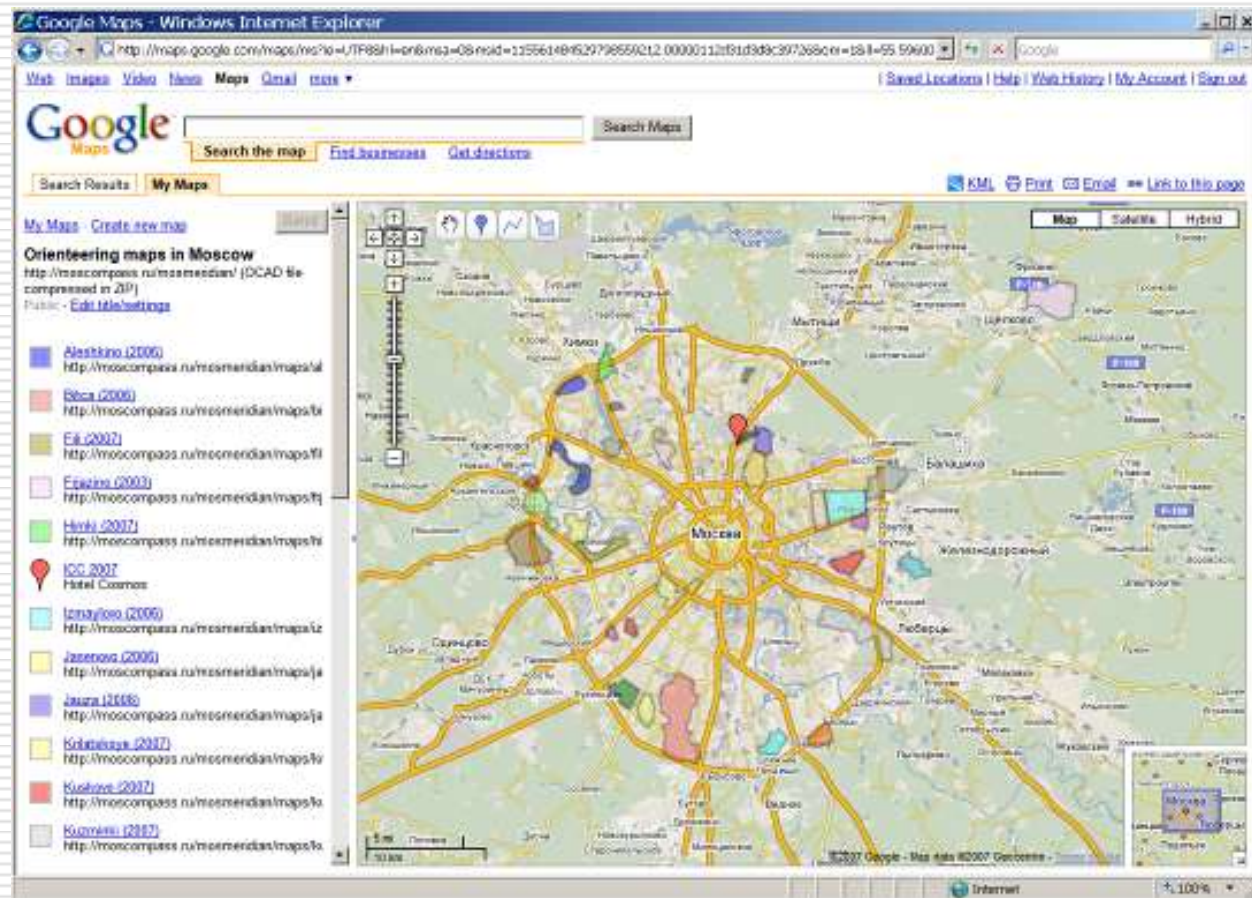
<http://www.mapjack.com/>



Web 2.0 elements: mashup

Google launched the Google Maps API in June 2005 to allow developers to integrate Google Maps into their websites.

For whom the creation of mashup application is too complicated Google released Google MyMaps in 2007, which is a simple online map creation tool.



GoogleMaps mashup

North Korea v South Korea: every incident mapped

Click on the dots to find out what happened

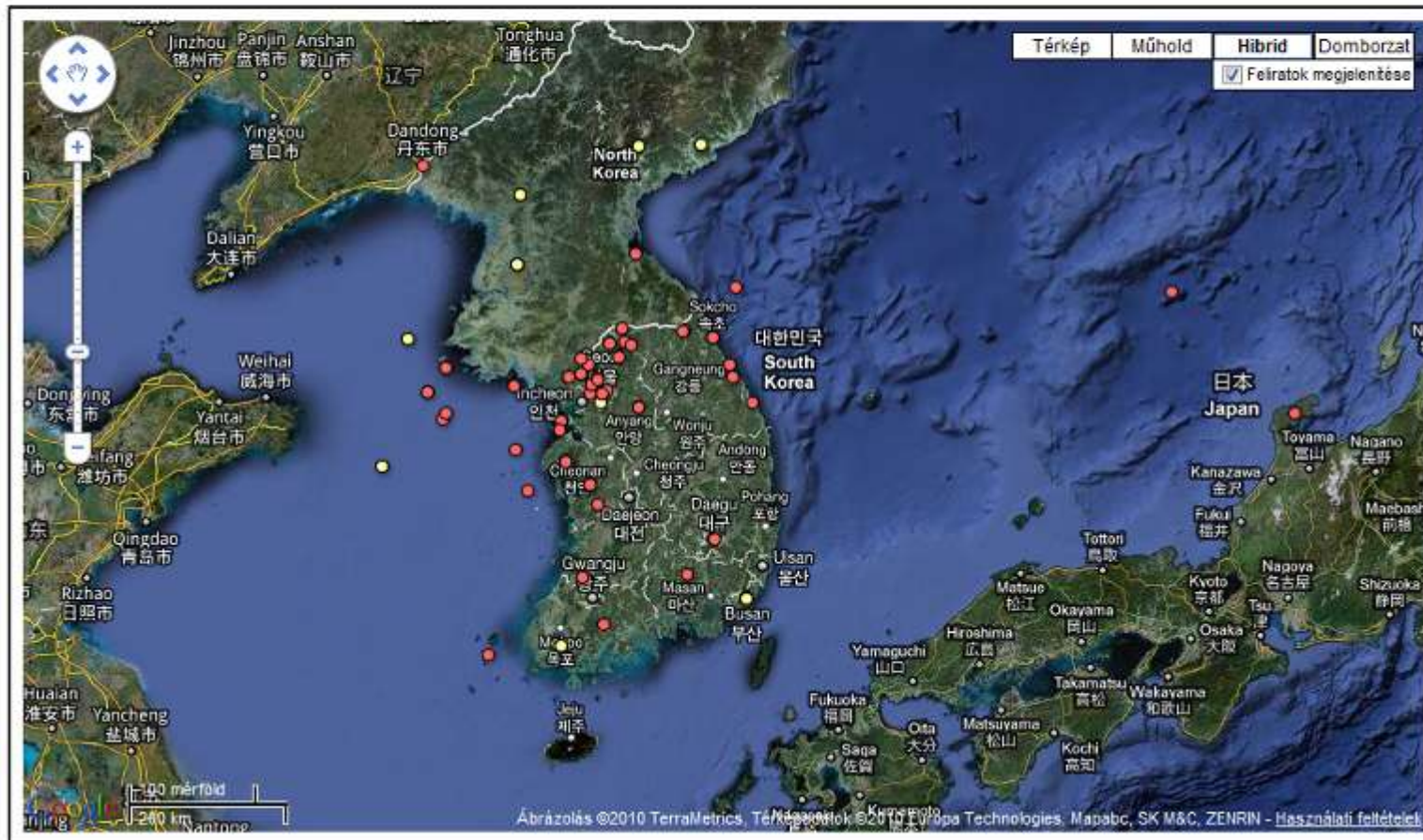
- Get the data - and context - from the datablog



guardian.co.uk, Tuesday 23 November 2010 13:42 GMT



<http://www.guardian.co.uk/world/interactive/2010/nov/23/korea-incidents-map>



GoogleMaps mashup (NORC)

NORC see. look. explore.

Unde ? Caută

Română

Cont nou

Autentificare

Recomandări Imobiliare Street view

Panorâmă Embed

Hartă | Hibrid | Street-view

Wiedner Hauptstraße

Frankenberggasse

Apfelgasse

Karlsgasse

Gußhausstraße

Favorita

Fakultät für Informatik

Wien Paulanergasse

Neues Altes

POWERED BY Google

Térképadatok ©2010 Google

Report a problem

PROVIDED BY NORC

©2008 norc

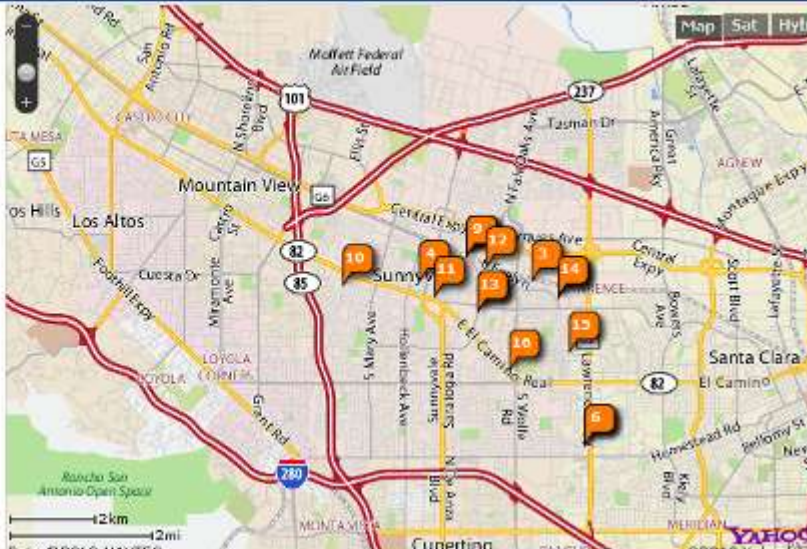
<http://www.norc.ro/street-view/>



YahooMaps mashup

Apartments in Sunnyvale, CA

Sunnyvale



Map Sat Hyb

1. # Evelyn Garden~~Swimming Pool & Spa ~~~Full Fitness Center (sunnyvale) \$1598...

2. * Luxury Apartments - Lock in Great Prices Today!! (sunnyvale)...

3. 1.5Bthr,W/D,DW,Open-Sun,Nov,28 (sunnyvale) \$1650 2bd...

4. Large 2br-2ba Luxury Modern Condo for rent in Cupertino schools! (sunnyvale) \$22...

5. Make a move to a caring team at Woodbridge (sunnyvale) \$1769 2bd...

6. Experience life with us at Woodbridge Apartments (sunnyvale) \$1374 1bd...

7. Find the perfect apartment at Villa Del Sol (sunnyvale) \$2325 2bd...

8. Great floor plans at Villa Del Sol (sunnyvale) \$2225 2bd...

9. Your perfect apartment, lease now! (sunnyvale) \$2895 3bd...

10. Everything Remodeled! Now w/ Washer/Dryers! Excellent View! (sunnyvale) \$1545 1b...

11. #1314 has an incentive of \$1000 off one time. (sunnyvale) \$2530 2bd...

12. Wonderful living at Heritage Park Apt. Spacious & well maintained. (sunnyval...

13. Resort Living With Movie Theater! (sunnyvale) \$1336 1bd...

14. Avail 12/1 1075 Sq. ft.with pool views, includes W/D, A/C & Storage! (sunnyv...

15. Nice Apt. for Rent! (El Camino and Lawrence) (sunnyvale) \$1250 2bd...

YAHOO! ANSWERS

Appliances at wholesale prices to the public near Sunnyvale, CA?
Number of Answers (2)
Appliances are sold to builders/contractors at wholesale prices that may sell to the public. (There ...

where can i get a rental for \$500 or less in sunnyvale,ca.?
Number of Answers (2)
i need a place to live ,close to my work.i work at a business at homestead and deAnze blvd,all this ...

How much usually is a pet deposit for a rental house in Sunnyvale, CA?
Number of Answers (2)
A single family house not an apartment. ...

Looking for place to rent! Young couple and 2.5 year old dog. Hoping to rent in Sunnyvale, CA area.?
Number of Answers (2)
Need to move by middle or end ofJanuary. Have a friendly dog who is used to living indoors, housebro...

How quickly do mobile homes depreciate in value?
Number of Answers (7)
I'm considering purchasing a mobile home in the Sunnyvale, CA area, but I don't want to make...

Silicon Valley Mobile Home Parks - good, bad, and ugly ...?

http://manishranade.com/bay_area/apartments.php



BingMaps mashup

Built on Windows® Azure™

сменете езика: {Български} | разработчици | доставчици | Отказ от поемане на отговорност

ЕYE ON EARTH

въведете местоположение

European Environment Agency

Път Въздушен Етикети Изгледи

YAZOVIR PCHELINA 2

НАШАТА ОЦЕНКА
ДОБРА

ВАШАТА ОЦЕНКА
МНОГО ДОБРА

най-близко местоположение
Major Road, Bulgaria

Пренаселено
Замърсена
Силно замърсена
Безопасна
Чиста
Животисен
Умерена
Небезопасна

1 Оценка

Щракнете, за да отворите

2 Kilometers

bing

СТАНЦИИ повече информация...

■ СТАНЦИИ ЗА ИЗМЕРВАНЕ СЪСТОЯНИЕТО НА ВЪЗДУХА ● СТАНЦИИ ЗА ИЗМЕРВАНЕ СЪСТОЯНИЕТО НА ВОДАТА

© 2010 Microsoft Corporation
© Harris Corp., Earthstar Geographics LLC

<http://eyeonearth.cloudapp.net/>



Géoportail mashup

Gustavia : Vue d'avion et carte IGN, de Géoportail, proposées par [ZoomGuadeloupe](#)



Gustavia.



Comment utiliser l'outil Géoportail :

- Sur la gauche en haut de la carte, sont référencées les trois couches sur lesquelles on peut agir. Cocher pour faire apparaître et décocher pour faire disparaître.
- La couche "cartes" correspond à la carte IGN au 1/25000 ième. La couche "photos" correspond à la vue aérienne. La couche "Pointeur" correspond au pointeur en jaune au centre de la carte.
- S'agissant des couches "Cartes" et "Photos", il est possible de jouer sur le niveau de transparence (ou d'opacité) de chacune de ces 2 couches pour obtenir une superposition

http://ti.racoon.free.fr/geoportail.php?image_id=529&chem=.:galleries/Paysage/StBarth/



Google StreetView

- It was launched on May 25, 2007, originally only in several cities in the United States, and has since gradually expanded to include more cities and rural areas worldwide.
- Integration of high quality photographs into the GoogleEarth environment to combine maps/satellite images and pictures.
- Privacy problems in some country, photographs are to change: delete plate names, depixelize human faces or properties (it is an automatic process due to the huge number of photos, so the result will not be perfect).



Google StreetView (Paris)



Mapping APIs – top list (November, 2010)

API	Popularity
Google Maps	2136
MS Virtual Earth	176
Yahoo Maps	133
Yahoo Geocoding	97
GeoNames	76
Google Maps Flash	41
Google Earth	40
Geocoder	35
Google Maps Data	24
Google Static Maps	22
Bing Maps	16
OpenLayers	14

<http://www.programmableweb.com/apis/directory/1?apicat=Mapping&sort=mashups>



Social networking

There were many early efforts to support social networks via computer-mediated communication, including Usenet, ARPANET, LISTSERV, bulletin board services (BBS).

Early social networking websites started in the form of generalized online communities such as **The WELL** (1985), **Theglobe.com** (1994), **Geocities** (1994) and **Tripod.com** (1995). These early communities focused on bringing people together to interact with each other through chat rooms, and share personal information and ideas around any topics via personal homepage publishing tools which was a precursor to the blogging phenomenon.

Some communities took a different approach by simply having people link to each other via email addresses. User profiles could be created, messages sent to users held on a “friends list” and other members could be sought out who had similar interests to yours in their profiles.



Social networking

New social networking methods were quickly developed by the end of the 1990s, which changed the social networking model from ones that simply recommended additions to users to ones they could manage themselves.

These sites included **Epinions.com**, using a system called 'The Web of Trust', which allowed users to build social networks based on who they trusted.

These system began to flourish with the emergence of **Friendster** in 2002, causing such sites to become part of mainstream users globally. Friendster was followed by **MySpace** and **LinkedIn** a year later.

By 2005, MySpace, emergent as the biggest of them all, was reportedly getting more page views than Google. 2004 saw the emergence of **Facebook**, a competitor, also rapidly growing in size.



Social networking - Facebook

Founded in February 2004, Facebook is a social utility that helps people communicate more efficiently with their friends, family and coworkers. The company develops technologies that facilitate the sharing of information through the social graph, the digital mapping of people's real-world social connections. Anyone can sign up for Facebook and interact with the people they know in a trusted environment.

In 2006, Facebook opened up to the non-US college community, and together with allowing externally-developed add-on applications, and some applications enabled the graphing of a user's own social network - thus linking social networks and social networking, became **the largest and fastest growing site in the world**, not limited by particular geographical followings.



Facebook

facebook

Keep me logged in

[Forgot your password?](#)

Email

Password

Login

Sign Up

NACIS - North American Cartographic Information Society is on Facebook

Sign up for Facebook to connect with NACIS - North American Cartographic Information Society.



The North American Cartographic Information Society, founded in 1980, is an organization comprised of specialists from private, academic, and government organizations whose common interest lies in communicating with maps.

Information

Founded:
1980

81 People Like This



Lynn Currie Pawelski Erin Haasch Karen Allen



Scott Zilmer Colter Sikora Jon Oetting

Photos

1 album

[See All](#)

NACIS - North American Cartographic Information Society



Wall Info Photos Discussions Boxes

Filters



NACIS - North American Cartographic Information Society First grant deadline, July 15: awards@nacis.org.



NACIS: Awards & Grants

www.nacis.org

NACIS Grants and Awards NACIS has travel/grant/membership initiatives that invest in the future growth and strength of the organization. These initiatives (1) recognize the importance of student membership ...

Yesterday at 6:42am · Comment · Like



NACIS - North American Cartographic Information Society Students, the interactive maps you are working on this year will be eligible for the upcoming NACIS map competition: webmaps@nacis.org.



NACIS: Student Web Mapping Competition

www.nacis.org

In only a few years, the World Wide Web has revolutionized how cartographers manage, conceptualize, and present map information. The North American Cartographic Information Society (NACIS) recognizes the growing importance of the Web to the future of cartography. ...

Mon at 2:21pm · Comment · Like



NACIS - North American Cartographic Information Society



URISA Leadership Academy | URISA

www.urisa.org

Developing Crucial GIS Leadership Skills - The success of any GIS program is largely tied to the capabilities of its leader. Strong leadership is necessary to establish a solid GIS program, operate efficiently ...

Mon at 6:33am · Comment · Like



Web 2.0 elements: Ajax, folksonomies, video sharing

The complex and evolving technology infrastructure of Web 2.0 includes

- server-software,
- content-syndication,
- messaging-protocols,
- standards-based browsers with plugins and extensions,
- and various client-applications.

These differing but complementary approaches provide Web 2.0 with information-storage, creation, and dissemination capabilities:

- rich internet applications,
- server-side software,
- new web protocols.



Folksonomy, semantic web

Folksonomies, unlike many other forms of communication, are created collectively by people acting in isolation from one another and with no coordinated effort. The difficulty in taking communications intended primarily for personal use and making them available to the public is that the full meaning available to the sign creator is not generally available to the sign receiver.

Geospatial systems:

- 1) people's tags may be difficult for others to understand,
- 2) people may have tagged items inappropriately for others' needs.

All geospatial data sets have location tags, but adding them in an unstructured way creates enough chaos that it is very difficult to leverage location tags in a thorough way. Secondly many potential users do not know the variety of geodata available.



Folksonomy, semantic web

definitions

cartographer (*n.*)

1. a person who makes maps

see also

cartographer (*n.*)

- ↗ cartography, map-making, mapping, surveying

synonyms

cartographer (*n.*)

map maker

phrases

➔ Campaign Cartographer • Diego Gutierrez (cartographer) • John Arrowsmith (cartographer) • John Rudd (cartographer)

analogic tree

- 📁 geographer [classe]
- 📁 science cartographique (fr) [classe]
- 🔗 (cartographer; map maker), (map; chart) [Thème]
- 🔗 (cartographer; map maker), (map; chart) [termes liés]
- 📁 geography [Domaine]
- 📁 Position [Domaine]
- 📁 Making [Domaine]
- expert - devising, fabrication, fashioning, making, modelling, shaping [Hyper.]
- geographics, geography - chart, map - cartographer, map maker - cartographic, cartographical [Dérivé]
- 📁 cartographer; map maker [ClasseHyper.]
- geographer [Hyper.]
- cartography, mapmaking, map-making, mapping, surveying [PersonneQuiFait]
- 📄 cartographer (n.)



Education



<http://aliooplv.pbworks.com/f/1210604811/web2.0.jpg>



Web 2.0 in cartographic education 1

GIS web environment offers more flexibility and interactions for the users; they may combine their data with map data offered by the map server. But the map availability is limited by the map owners and web users cannot add their own map data on-line in this environment.

The open web standards reacted considerably to the development of web based GIS both in content and in quality. More and more GIS based mapping service is available on the web.

The milestone of Web 2.0 cartographic services in Google Maps started in February 2005. For the simple users and for education we have to emphasize the following advantages:

- Detailed map/satellite image database
- Searching functions
- Simple and intuitive user interface
- Open API (programming interface)
- Free, but reliable service



Web 2.0 in cartographic education 2

Building mashups is a task to be the part of the mapmaking in the cartographic higher education. The students have to have some programming and database management knowledge, but not much more than what can be expected nowadays from our students. It can be a very good practice both theoretically and practically to link our existing database to Google Maps: the project can be very spectacular both for cartography, geography and GIS students.

Google Maps also may inspire the students to take part in special projects to collect GPS data in order to create cartographic databases or enrich the existing maps and satellite images.



Web 2.0 in cartographic education 3

Voluntary web communities even make the state cartographic services to rethink their data management policy and business model, hopefully to move to a direction of less strict and less expensive access to official topographic data.

The image shows a screenshot of the OpenStreetMap website. The main map displays a detailed street view of a city, likely Vienna, with various landmarks and street names. The interface includes a navigation bar at the top with options like 'Térkép', 'Szerkesztés', 'Előzmények', 'Exportálás', 'Nyomvonalak', and 'Naplók'. On the left side, there is a sidebar with a search bar, a 'Keresés' button, and a 'Holt vagyok?' link. Below the search bar, there is a section for 'Sugó és wiki', 'Szerzői jog és licenc', 'Hírblog', 'Bolt', and 'Jelmagyarázat'. The bottom left corner of the map shows a scale bar and a north arrow. The bottom right corner of the map has a small logo for 'Wien'.

<http://www.openstreetmap.org/>



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e.g. "10 market st, san francisco" or "hotels near lax"
Search Maps

Search the map Find businesses Get directions

KML Print Email Link to this page

Search Results My Maps **New!**

Add content - Create new map

Created by me

Orienteering maps in Moscow

Wroclaw - XM Cartographic School

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Gas Prices from GasBuddy.com

Distance Measurement Tool

Our Earth as Art

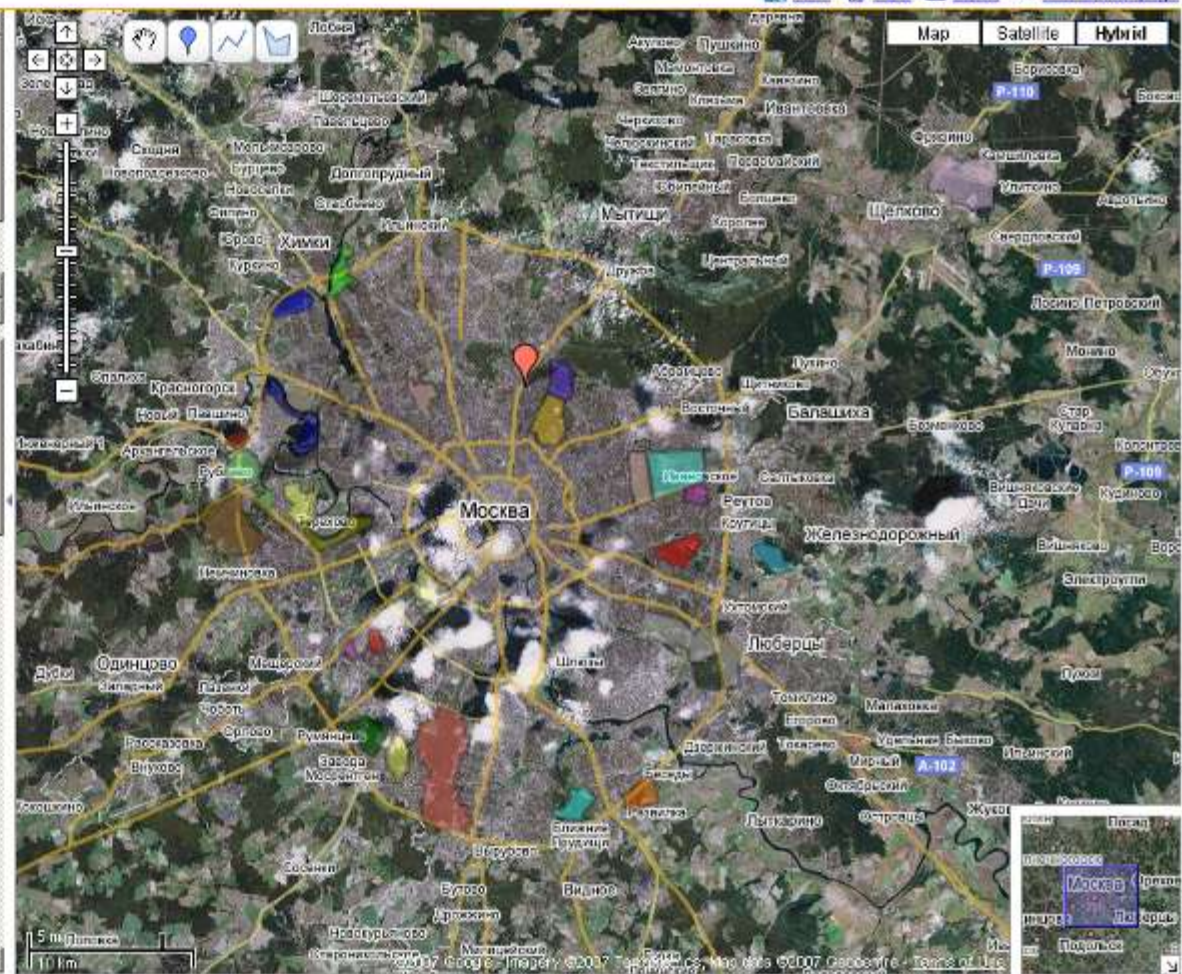
Orienteering maps in Moscow

<http://moscompass.ru/mosmeridian/> (OCAD file compressed in ZIP)

Public - [Edit title/settings](#)

Created by Tajfuto-Arcok Tajfuto-Arcok on May 28

- [Alshino \(2006\)](http://moscompass.ru/mosmeridian/maps/al)
- [Bitca \(2006\)](http://moscompass.ru/mosmeridian/maps/br)
- [Fili \(2007\)](http://moscompass.ru/mosmeridian/maps/fili)
- [Frjazino \(2003\)](http://moscompass.ru/mosmeridian/maps/frj)
- [Himki \(2007\)](http://moscompass.ru/mosmeridian/maps/hi)
- [ICC 2007](#)
Hotel Cosmos
- [Izmajlovo \(2006\)](http://moscompass.ru/mosmeridian/maps/iz)
- [Jasenovo \(2005\)](http://moscompass.ru/mosmeridian/maps/ja)
- [Jauza \(2006\)](http://moscompass.ru/mosmeridian/maps/ja)



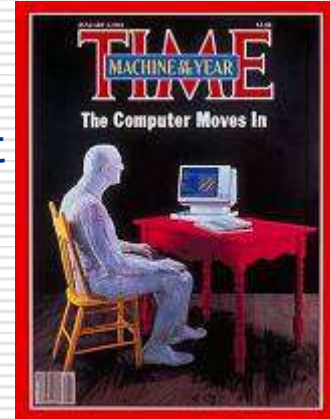
Is it time for cartography 2.0?

In December 2006 Time magazine named Time's Person of the Year 2006. The title was given to "YOU. Yes, you. You control the information age."

We are the users who reformed the Internet, who looked at the World through a different lens, creating social networks, on-line encyclopaedias; we will not only change the World, but also change the way the world changes - as Time magazine wrote.

When 1982, just after one year the release of the first personal computer, Time declared **The computer**, the Person of the Year. Nobody thought how perfect this vote was. Although lot of people disputed the decision today we can declare that the (personal) computer has really changed our life as Time predicted.

The decision of Time at the end of 2006 practically acknowledged the importance of Web 2.0, the importance of the term, which was first used only some years before.



Is it time for cartography 2.0?

Understanding the importance of Web 2.0 we can integrate its most important elements into the cartographic higher education:

- Building mashup applications.
- Blog environments as tools in cartography (map making, map producing, map updating).
- Using wikis as source of information for mapmaking (reliability vs. usability).
- On-line cartographic databases.

Is it much enough to use the term cartography 2.0?



Cartography 2.0

The term cartography 2.0 would be as unusual, but easily understandable as the term Web 2.0.

We, cartographers, can probably benefit by using this term to get more interest from the media and business. We can list advances of the contemporary cartography to support this term, although the changes were not as fast and evident as in the case of Web 2.0.

However, taking into account and comparing the some hundred years old tradition of cartography and the revolutionary changes of the last 30-40 years (remote sensing, GIS, computer cartography, GPS) we can adopt the new term.



Examples

The screenshot displays a web-based mapping application interface. The top section features a large satellite map of a city, with various streets and landmarks labeled in Russian. A navigation toolbar is visible in the top-left corner, and a legend in the top-right corner includes options for 'Map', 'Satellite', and 'Hybrid'. Below the main map, there is a secondary map view on the left side, showing a different map type (likely 'Hybrid') and a search bar. The central part of the interface contains a navigation menu with links for 'Globe Glider', 'Info', 'Wikipedia', 'GeoURL', 'Guide', 'Hotels', 'Flickr', 'Weather', and 'Street View'. Below this menu, there is a weather forecast section for 'Moskovskaya oblast', Russia, with coordinates 37.6472°E, 55.6240°N, 140m. The weather forecast includes a list of nearby cities: Moscow (0km), Mytishchi (11km), Ilyinskiy (36km), Noginsk (50km), Istra (50km), Sergiyev Posad (63km), Kaluga (167km), and Tula (191km). A search bar with the text 'Keresés' and 'üzemelteti - Google' is also present. At the bottom of the interface, there is a 'WEATHER VIDEO' section with three video thumbnails: 'National Forecast (7/31/2007 6:45 AM)', 'Northeast Forecast (7/31/2007 6:45 AM)', and 'Elliot's Elaboration - Elliot Abrams'. The bottom-right corner of the screenshot shows a circular logo of the University of Debrecen.



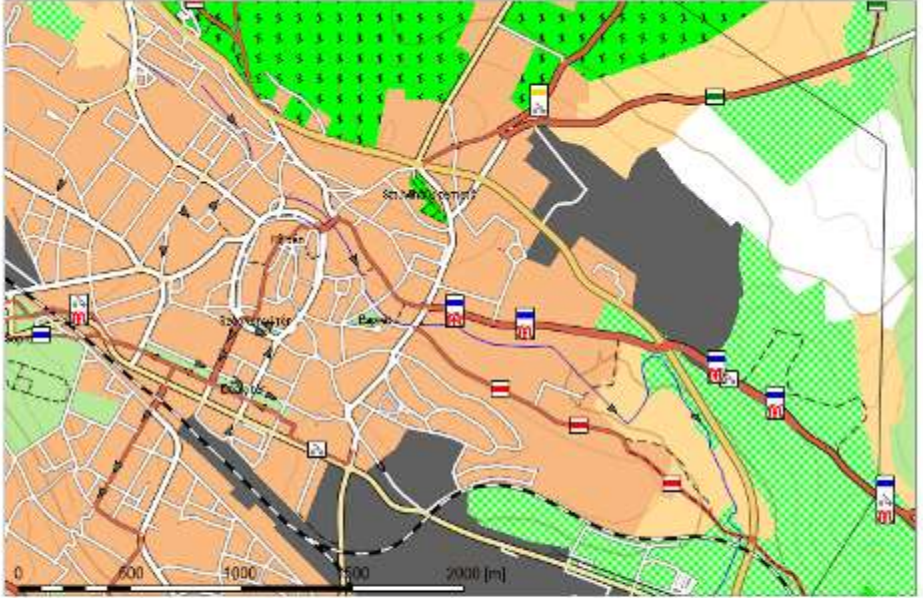
Examples

www.turistautak.hu - a Hungarian website of sharing GPS logs of hiking tracks and create a universal digital map using these track data:

- collaborative environment
- comments, feedbacks
- common knowledge (wiki-like)
- Special software or mashup for the graphic representation

Turistaút-térkép (a folyamatosan frissülő edetbázisból óránként készül, legutóbb 14:00-kor, [újoltsd meg!](#))

Mozgatás: lenyomott egérgombbal húzva, vagy egérgöggével fel-le, SHIFT+egérgöggével jobbra-balra. **Nagyítás:** jobb egérgombbal (vagy SHIFT/CTRL+bal gombbal) bökerezve a kért területet, illetve CTRL+egérgöggével; jobb kattintás: kicsinyítés.



Ha el szeretnéd küldeni vagy tárolni a térképen éppen látható részt, íme a közvetlen link - a fenti részlet letöltése [Google Earth](#) feldolgozható változat (svg, pdf, png)
A kattintás koordinátái: N47.659583° E17.113415° | N47° 39.575' E17° 6.005' magasság: 111 m

Település-kereső:

Automatikus útvonaltervezés: Kattints valamelyik csomópontra vagy vonal-végpontra, majd egy másikra. Néhány másodperc múlva megjelenik a két út közötti legrovidebb útvonal a térképen a szakaszok kijelölésével. Ezután kerhetsz [pínt](#) a kijelölt útról: távolság- és magasságadatok összegzése, az útvonal függőleges metszete. A kijelölés további célpontok kattintásával bővíthető. Új kezdőpontot SHIFT+kattintással tudsz kijelölni. Érdekes ábráznád és módosítanád az [útvonaltervezés beállításai](#) oldalt.

[szükségtől tulajdonságai](#) | [kijelölés törlése](#) | [kijelölés lekérdőjelezéssel](#) | [visszatérés](#)

kiválasztott azonosítók: | | | |

Az útvonaltervezés kezelőszervei még nincsenek kész, a jelenlegi állapot tesztelésre került ki a nyilvánosság elé. Ismert hiba, hogy nagyításkor/kicsinyítéskor az útvonal képe elugrik a helyéről, Firefox/Opera böngészőkben nem tekinthető a tervezés, stb.

Similar to OpenStreetMap



Cartography 2.0



Welcome

Cartography 2.0 is a free online knowledge base and e-textbook for students and professionals interested in interactive and animated maps. I (Mark) pitched the idea to my co-authors because I knew that, as teachers, we were all frustrated with the inability of traditional textbooks to keep pace with Web technologies. Nor could we find any comprehensive online resources that provided the same breadth and depth we've come to expect from a professionally produced textbook. The kind of knowledge that is needed to make dynamic maps spans many (traditionally separate) fields, and we set out to answer a basic question we've been asked many times: **What's the important stuff I need to know about making great on-demand/interactive maps?**

Chapters

 Map Animation	 3D / Virtual Globes
 UI & Useability	 Map Interaction Techniques
 Advanced Topics	 Elements of Design

New Content

- [Overview: Animated Maps](#)
- [Interface Evaluation 1: Philosophy](#)
- [Overview: The User Interface](#)
- [Representing Time on Static Maps](#)
- [Data Probing and Info Window Design](#)
- [Multiple, Coordinated Views, Brushing & Highlighting](#)
- [Cartographic Text](#)

view of cartographic interaction, defined as the notation in response to user input. The entry begins with a result of the Digital Revolution. I then provide a brief size the importance and potential of cartographic that cartographic interaction can be conceptualized, entries on cartographic interaction.

on this: [Gennady Andrienko](#), [Natalia Andrienko](#), [Remco in Dykes](#), [Rob Edsall](#), [Alan MacEachren](#), [Mark Monmonier](#),

: cartography, interactive maps, geographic visualization, , goals, objectives, operators, user inputs, operands



Cartography 2.0

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Indiemapper is the smarter, easier, more elegant way to make thematic maps from digital data. Free yourself from GIS.

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DATA



DESIGN



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Our custom-built maps go beyond GIS or Google Map pushpins. Our strong foundation in the principles of design, our experiences working with a wide range of clients, and

LEARN

Mapping knowledge, straight from the experts

GO

Cartography 2.0

We publish Cartography 2.0 to share everything we know and use every day to build our award-winning maps. We are constantly updating it to make Cartography 2.0 to most current and up-to-date resource on our fast moving field.

It's free and contains everything we know about making maps.



Get hands-on training at our mapping workshop:

Learn the principles



...and the technology



Our workshop covers what you need to know about cartography today, what technology to implement, and how to deliver great looking custom geographic content over the web.



Conclusions



Conclusions 1

- ❑ If we look at the history of cartography, the development of the last decades caused the most rapid changes.
- ❑ The meaning of the term cartographer is continuously changing by integrating more and more areas of information technology into cartography.
- ❑ The cartographic approach is somehow built in the human brain (at least the navigational skills), but it will not be built-in totally in software (at least not in our life).
- ❑ It is difficult to predict how the meaning of the term ‘cartographer’ is changing in the near future. Information technology is still developing rapidly creating new hardware and software to let us invent new chances for cartography.
- ❑ Cartographers are ready to adapt new technologies and keep ‘something’ from the times when the cartographer was an artist too (ICA Working Group on Art and Cartography).



Conclusions 2

- ❑ The web is becoming a platform for unparalleled activity. This kind of activity is not unusual for cartographers.
- ❑ Share our own enthusiasm, excitement, and passion in the education.
- ❑ The wisdom of the collaborative group may replace the expert - do we need cartographers at all?
- ❑ Free software environment - how about free data (Inspire)?
- ❑ Web 2.0 may change the role of the cartographer, we have to prepare for that.



Web 3.0

People keep asking what Web 3.0 is. I think maybe when you've got an overlay of scalable vector graphics - everything rippling and folding and looking misty – on Web 2.0 and access to a semantic Web integrated across a huge space of data, you'll have access to an unbelievable data resource..."

Tim Berners-Lee, 2006

Not much time passed before "Web 3.0" was coined. Definitions of Web 3.0 vary greatly. Web 3.0 is, among other things, about the Semantic Web and personalization. Some consider the Semantic Web an "unrealisable abstraction" and sees Web 3.0 as the return of experts and authorities to the Web. Others proposes that Web 3.0 will be a "Totally Integrated World" - cradle-to-grave experience of being always plugged onto the net.

Others expects Web 3.0 to emerge from new and innovative Web 2.0 services with a profitable business model. Other users have argued that Web 3.0 is where "the computer is generating new information", rather than humans.



Thank you for your attention

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