



The Future of the Web and the New World Wide Web Foundation

Steve Bratt (steve@webfoundation.org)

Chief Executive Officer

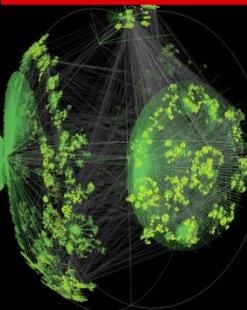
World Wide Web Foundation

(<http://webfoundation.org/>)

March 2009



**WORLD WIDE WEB
FOUNDATION**





- **History**
- **Vision**
- **Challenge**
- **World Wide Web Foundation**
 - **Web in Society : Web for Development**
 - **Web Leadership**
 - **Web Index**
 - **Web Science**
 - **Web Standards (with extra focus on emerging tech)**
 - **Plan**



**WORLD WIDE WEB
FOUNDATION**

History: Growth of the Web



1980s+: Internet Service Providers Offered Controlled Information Access



- Valuable attempt to make the Internet useful to people, but...
- Proprietary solutions
- Lack of Interoperability
- Users stuck in the “walled garden”



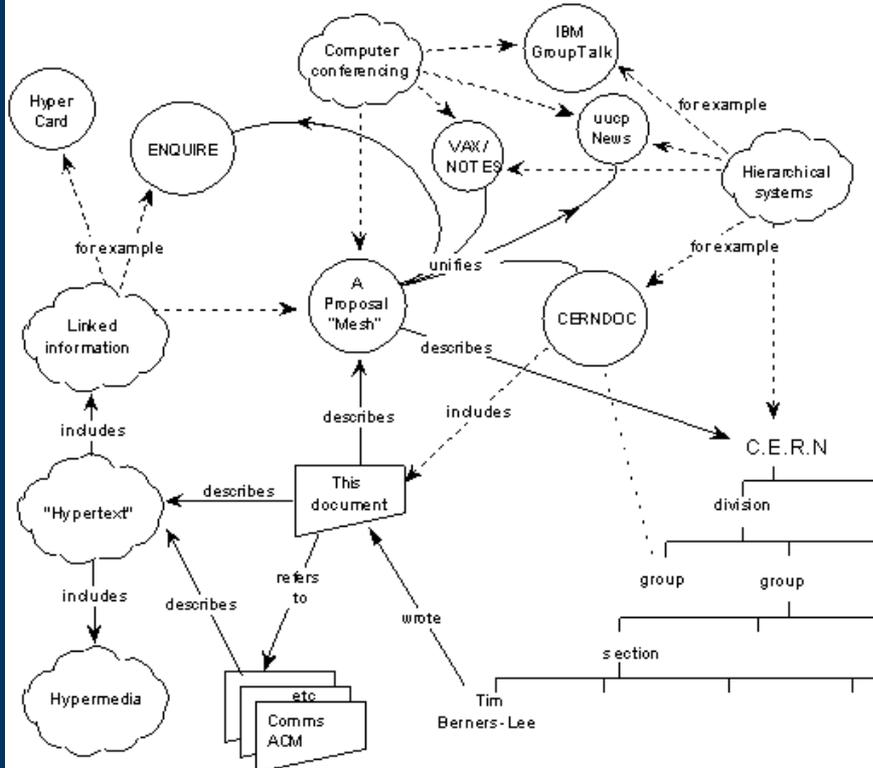
Prodigy
Communications, L.P.



1989: The Web is Born – Killer App for the Internet (eventually) Broke Down the Walls

“Information Management: A Proposal”

By Tim Berners-Lee, March 1989



**HTML, URI
HTTP**

<http://www.w3.org/History/1989/proposal.html>



1.5 Billion Served (by language)

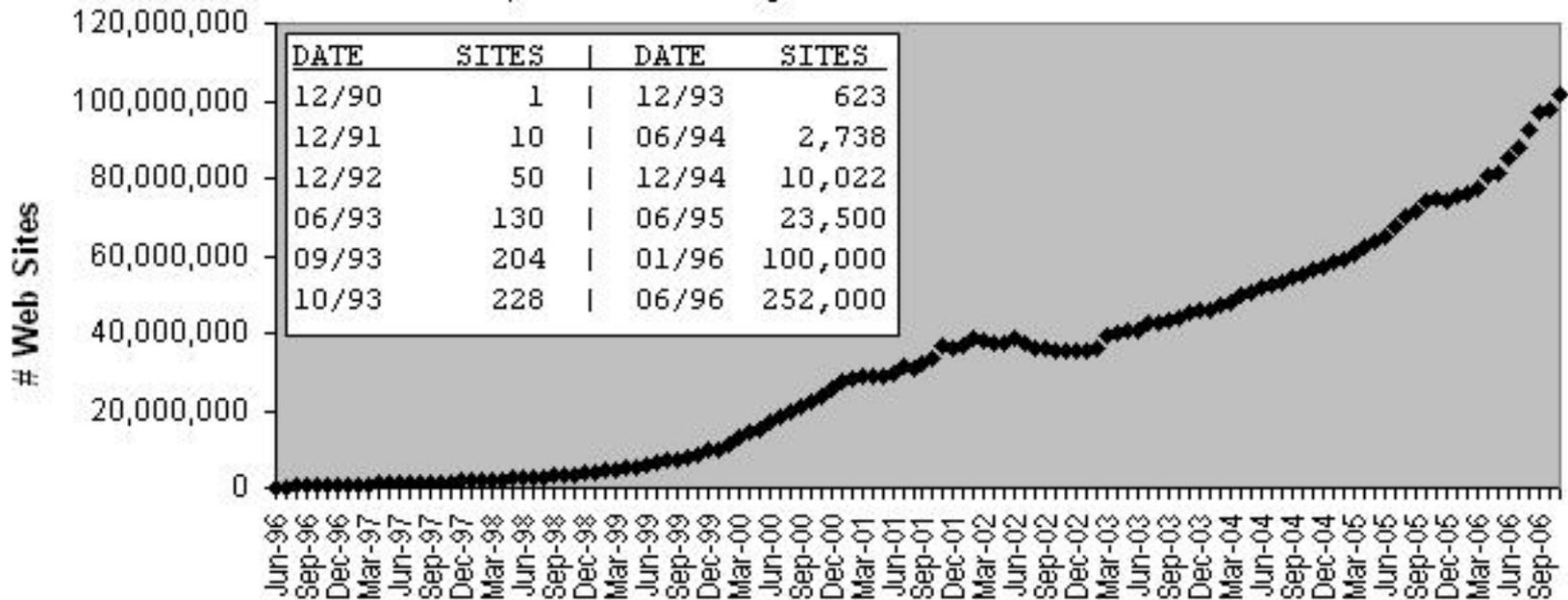
Top Ten Languages Used in the Web (Number of Internet Users by Language)					
TOP TEN LANGUAGES IN THE INTERNET	% of all Internet Users	Internet Users by Language	Internet Penetration by Language	Language Growth in Internet (2000 - 2008)	2008 Estimated World Population for the Language
<u>English</u>	29.4 %	430,802,172	21.1 %	203.5 %	2,039,114,892
<u>Chinese</u>	18.9 %	276,216,713	20.2 %	755.1 %	1,365,053,177
<u>Spanish</u>	8.5 %	124,714,378	27.6 %	405.3 %	451,910,690
<u>Japanese</u>	6.4 %	94,000,000	73.8 %	99.7 %	127,288,419
<u>French</u>	4.7 %	68,152,447	16.6 %	458.7 %	410,498,144
<u>German</u>	4.2 %	61,213,160	63.5 %	121.0 %	96,402,649
<u>Arabic</u>	4.1 %	59,853,630	16.8 %	2,063.7 %	357,271,398
<u>Portuguese</u>	4.0 %	58,180,960	24.3 %	668.0 %	239,646,701
<u>Korean</u>	2.4 %	34,820,000	47.9 %	82.9 %	72,711,933
<u>Italian</u>	2.4 %	34,708,144	59.7 %	162.9 %	58,175,843
TOP 10 LANGUAGES	84.9 %	1,242,661,604	23.8 %	278.3 %	5,218,073,846
Rest of the Languages	15.1 %	220,970,757	15.2 %	580.4 %	1,458,046,442
WORLD TOTAL	100.0 %	1,463,632,361	21.9 %	305.5 %	6,676,120,288

(*) NOTES: (1) Internet Top Ten Languages Usage Stats were updated for June 30, 2008. (2) Internet Penetration is the ratio between the sum of Internet users speaking a language and the total population estimate that speaks that specific language. (3) The most recent Internet usage information comes from data published by Nielsen//NetRatings, International Telecommunications Union, Computer Industry Almanac, and other reliable sources. (4) World population information comes from the U.S. Census Bureau . (5) For definitions and navigation help in several languages, see the [Site Surfing Guide](#). (6) Stats may be cited, stating the source and establishing an active link back to [Internet World Stats](#). Copyright © 2008, Miniwatts Marketing Group. All rights reserved worldwide.



Over 100+ Million Serving

Hobbes' Internet Timeline Copyright ©2006 Robert H Zakon
<http://www.zakon.org/robert/internet/timeline/>



Users:Servers ratio=> 1996 ~ 150:1. 2000 ~ 50:1. 2006 ~ 10:1

<http://www.zakon.org/robert/internet/timeline/>
<http://www.internetworldstats.com/stats.htm>



Number of Public Web Pages

1990: 1

1998: 26 million (~26,000,000)

2008: >1 trillion (~1,000,000,000,000)

***... more than the number of
neurons in the human brain***

[public pages, http://googleblog.blogspot.com/2008/07/we-knew-web-was-big.html](http://googleblog.blogspot.com/2008/07/we-knew-web-was-big.html)



What Led to the Web's Success?

- Simple to use
- Powerful
- Fun
- Free/cheap
- Tolerant
- Simple architecture
- Extensible
- Platform independent
- Network effect
 - value grows proportional to n^2 (Metcalfe's Law)
- Open standards
 - Critical for interoperability and increasing “n”



Vision



The Web Has Changed the [Developed] World

The Web has ...

- ... changed the way we connect to people, to information, to services
- ... changed the way we communicate, buy, sell, learn, meet, work, govern, prevent, cure, move, create, consume, understand
- ... changed the balance of power from centralized to decentralized, with more individual creation and consumption of information and services.



*“The social **value of the Web** is that it enables human communication, commerce, and opportunities to share knowledge [and] to make these **benefits available to all people**, whatever their hardware, software, network infrastructure, native language, culture, geographical location, or physical or mental ability.”*



Sir Tim Berners-Lee, inventor of the World Wide Web
[Worldwide Participation in the World Wide Web Consortium](#)



Challenge



Challenge: Limited Usability and Usefulness

- Reach of the Internet is increasing
 - Mobile phones: 4 billion and growing
- < 25% of world's people accessing the Web
 - Smaller percentage are creating content
- Web sites offering life-critical services are rare, especially for those who need help the most
- Barriers to creating and consuming content:
 - Low computer literacy
 - Low language literacy
 - Literacy in languages not supported on the Web
 - Physical and cognitive disabilities
 - Cost



Challenge: Technology and Policy Threats

- Creative, robust evolution of the Web is impeded
 - The Web far from reaching its full potential
 - Incomplete knowledge of this humanity-tech system
 - Knowledge is important to improving the Web
- The Web as a single, universal medium for the sharing of information, is threatened
 - Censorship
 - Insecurity
 - Trustworthiness
 - Uninformed policies
 - Incompatible and proprietary technologies



The World Wide Web Foundation



Announcing the creation of the **World Wide Web Foundation**

- **\$5 million seed grant from John S. and James L. Knight Foundation**

Awarded on 14 Sep 2008 by Knight President Alberto Iburgüen to Web Foundation founder Tim Berners-Lee (right) ([press release](#))

- **5 yrs funding for operations, raising program funds and creating an endowment**
- **Operational launch of the Web Foundation planned for 2009**





The Mission of the World Wide Web Foundation:

- *Advance the Web.*
- *Connect Humanity.*
- *Empower People.*



4 Objectives to Advance Our Challenges

- Accelerate number of Web content creators
- Increase availability of life-critical services

- Enable everyone to access and benefit from the Web – regardless of culture, language, literacy, disability, economic status or devices

**Useful
Content**

**Usable
by All**

**1 Web:
Free and
Open**

**Understand
Advance
Strengthen**

- Same content , available to all
- Core technologies are developed openly, and available at no cost
- Communication, creativity, commerce expand on top of free / open Web

- Understand the human-system dynamics of the Web
- R&D new technologies – advance the Web
- Support stable evolution



The Web Foundation Is Uniquely Capable of Achieving its Mission

- **Credibility:** The Foundation is being created by
 - Sir Tim Berners-Lee: the inventor of the Web
 - Knight Foundation: providing a \$5 million / 5 year seed grant
 - World Wide Web Consortium (W3C)
 - Web Science Research Institute (WSRI)
 - *Will convene global leaders and innovators*
- **Global Network of Technical Expertise**
 - W3C's members include the world's leading tech organizations, with a large public community
 - WSRI and the Web Science community is a growing rapidly
 - *Will expand this community to address challenges*



2 Types of Programs

- Until now, there has been no **coordinated effort** to address the full range of challenges and opportunities for the Web.
- The Foundation will fill this gap with programs that enable **local action and impact** that scale to affect change on a **global level**.



Web in
Society

- **Focused**
- **Bottom-up**



Web
Leadership

- **Big picture**
- **Top-down**



Web In Society Programs



Web in Society Programs

Bottom-up / Focused goals

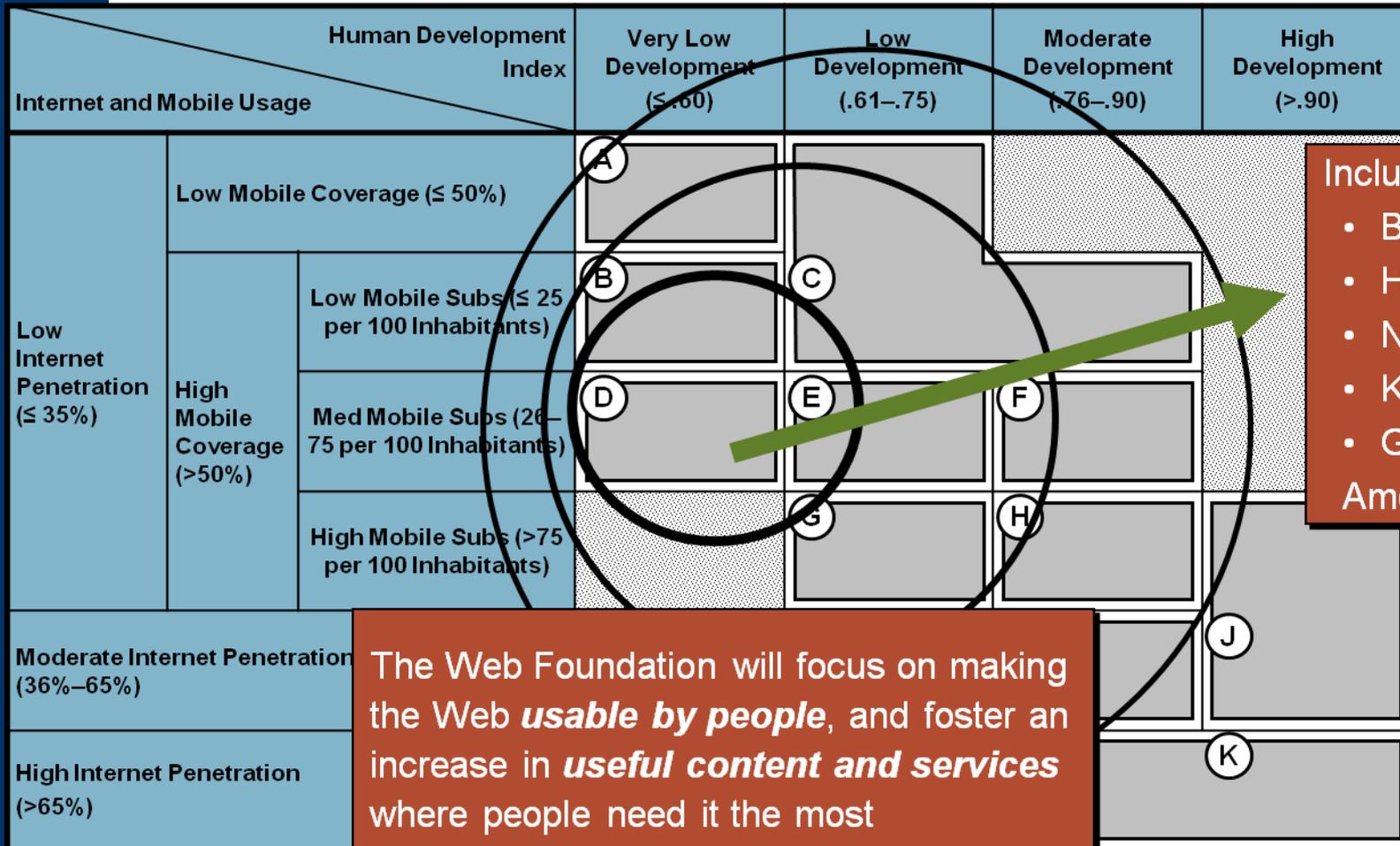
- Accelerate opportunities, within particular populations and applications
- Identify focused opportunities where the Foundation's actions can have a significant impact on connecting and empowering people





“Web for Development” The First “Web in Society” Program

Countries with low human development, yet significant mobile penetration, are at a tipping point for maximum impact as a result of the Foundation’s interventions



- Includes:
- Bangladesh
 - Haiti
 - Nigeria
 - Kenya
 - Ghana
- Among others...

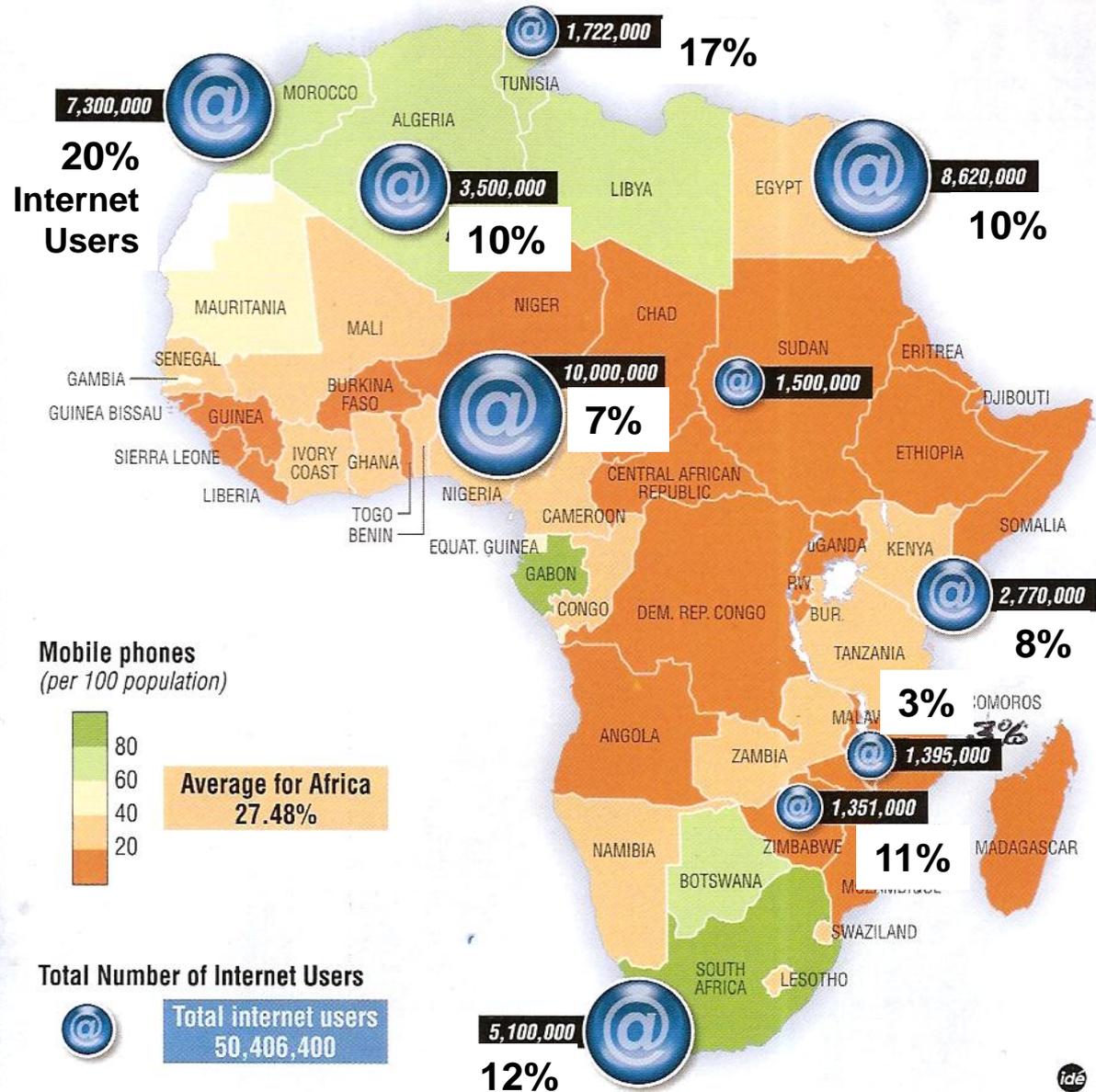
The Web Foundation will focus on making the Web *usable by people*, and foster an increase in *useful content and services* where people need it the most



Internet Users and Mobile Phone Owners in Africa

(2008 Sep/Oct)
Africa Report

Mobile phone density and top ten countries in internet use





First Web in Society Program: Web for Development

- For under-served populations at the **tipping point**, accelerate growth in the number of:
 - People who can create content
 - Web sites and applications providing useful content
 - Health care/nutrition
 - Education
 - Government services
 - Commerce
 - Web sites that are accessible and usable by people on mobile phones and other devices
 - Web-connected and -empowered people
- Achieve measurable impact





Web for Development Projects

Break Barriers. Accelerate Opportunities.

Community Building

- *Convening groups of thought leaders, developers, users ...*
- *Social networking (wikis, blogs, twitter, fora...)*
- *Annual event and prize for the Innovative mobile Web applications*
- *Travel and study fellowships*

Science

- *Field research on mobile Web usage*

Standards

- *Web for people with low reading skills*
- *Web for people with little experience*
- *Web serving under-served languages*

Tools

- *Software and tools to develop, deploy and access Mobile Web content*
- *Open-source community software development projects*

Training

- *Training on mobile Web technologies for IT sector, NGOs, entrepreneurs...*
- *Curriculum and Degree at Universities*

Deployment

- *Pilot projects*
- *Full-scale projects*





Web Leadership Programs



Web Leadership Programs

Top-down / Big picture

- Web Science, to understand the Web and explore new concepts
- Web Standards, toward One Web that works for all people
- Consider challenges such as censorship, uninformed policies, incompatible and proprietary technologies, etc.
- Plan future Web in Society programs
- “Web Index”





The Web Index

Measure Foundation's Effectiveness

- Composite “Web Index”
 - Development of and continual reporting on a composite measure which reflects the Web Foundation’s impact on connecting and empowering people
- Measures which could contribute to the Web Index:
 - Number of people providing content to and consuming content over the Web
 - Number Web sites and applications
 - Volume of data; orgs providing data; types of things you can do on the Web
 - Number of people leveraging Foundation resources (tool, guidelines, studies)
 - How much of human knowledge is represented on the Web
 - Expansion of global freedom to create and consume content
 - Expansion of free, open, robust and safe Web technologies
 - Number of Web science programs and experts, and volume of research
 - Amount of commerce vs. amount of crime
- Indirect effects from connecting and empowering people
 - Increase access and better use of critical information and services
 - Increased communication, creativity, commerce => empowerment



Web Leadership: Web Science



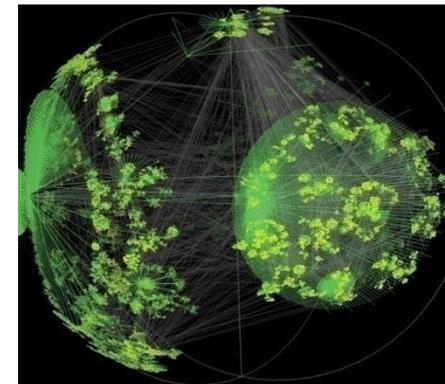
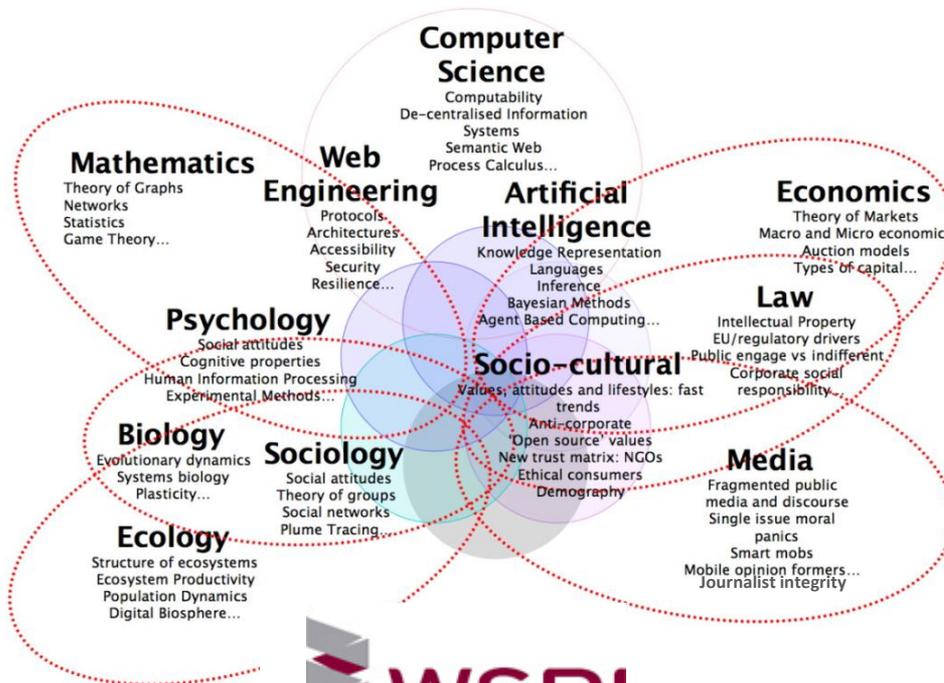
Web Leadership Programs: Support of Web Science

Goals

- Understand how the Web works
- Technical and non-technical issues
- Take the Web to new levels

Activities. Fund:

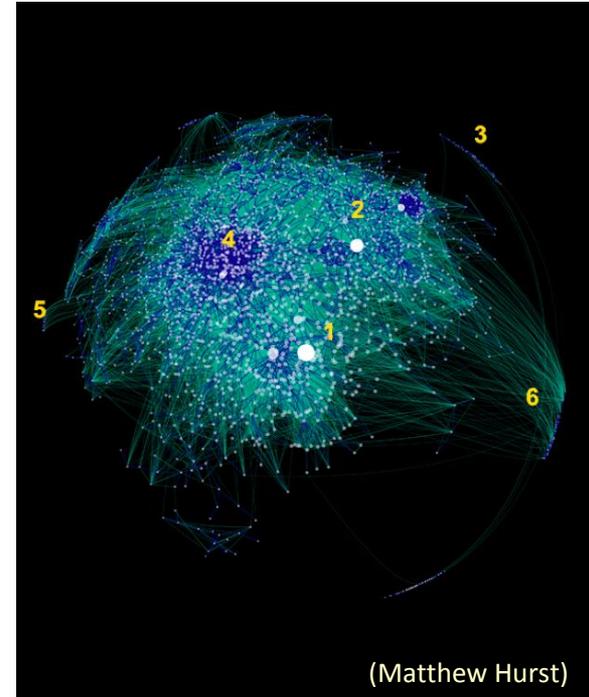
- Overall coordination
- Advocacy
- Global expansion
- Web science curricula
- Conferences
- Connection to Standards
- Research to support Web in Society programs





Sample Questions

- How has/will the Web evolve?
- How has/will it work?
- How could it break?
- Cause / effect?
- Opportunities / barriers?
- Transparency / accountability?
- Privacy (Get over it!)?
- Ownership (“I want my data back!)?
- Security, phishing, annoyances?
- What level of trust can be placed on data?



(Matthew Hurst)



Web Leadership: Emerging Technologies and Standards



Web Leadership Programs: Support of Web Standards

Goals

- There is One Web ... and it works
- Web expands in a robust manner
- Web remains free and open for all



Idioma de la interfaz

- العربي
- English
- Sueco
- Français
- Italiano
- 日本語
- Русский
- Español
- Svenska



Activities. Fund:

- Conferences and workshops
- Education and outreach
- Increased global participation
- Connection to Web Science
- Deployment to support Web in Society
- Uncovered gaps



Future of Web Technologies



Expanding from a
Web of linked
documents,

to **One Web:**

- of creators and consumers
- of Linked Data
- on Everything
- for Everyone
- Improving w/ time



- **What is it?**
 - *Everyone is a creator, as well as a consumer*
 - *Dynamic interaction*
- **Updating existing W3C standards**
 - HTML5
 - SVG graphics
 - CSS styling, etc.
- **Standardizing new technologies**
 - AJAX
 - Widgets, etc.





Social Networking

A chaque continent ses préférences

LES SITES DE RÉSEAUX SOCIAUX LES PLUS FRÉQUENTÉS...

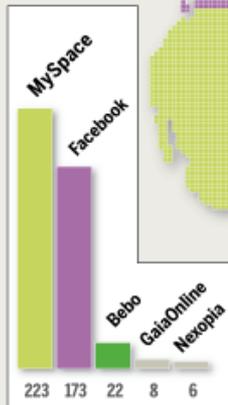
... PAR PAYS	Nom du site	MySpace	Facebook	Bebo	Cyworld	Skyblog	Hi5	Friendster	Orkut	Live Journal
Nationalité de l'entreprise :	Etats-Unis	Etats-Unis	Etats-Unis	Corée du Sud	France	Etats-Unis	Etats-Unis	Etats-Unis	Etats-Unis	Russie

... PAR CONTINENT

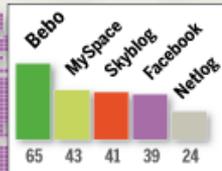
En millions d'heures par mois
(août 2007)

AMÉRIQUE DU NORD

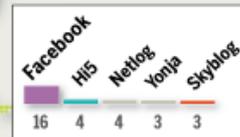
Un quart des inscrits dans le monde.



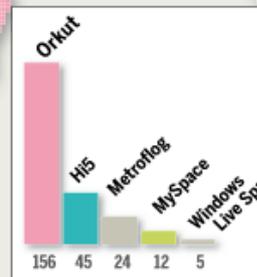
EUROPE



AFRIQUE - PROCHE-ORIENT

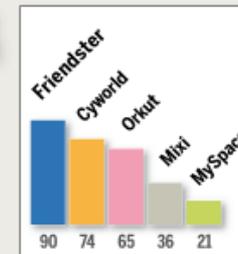


AMÉRIQUE LATINE



ASIE - PACIFIQUE

Un tiers des inscrits dans le monde.

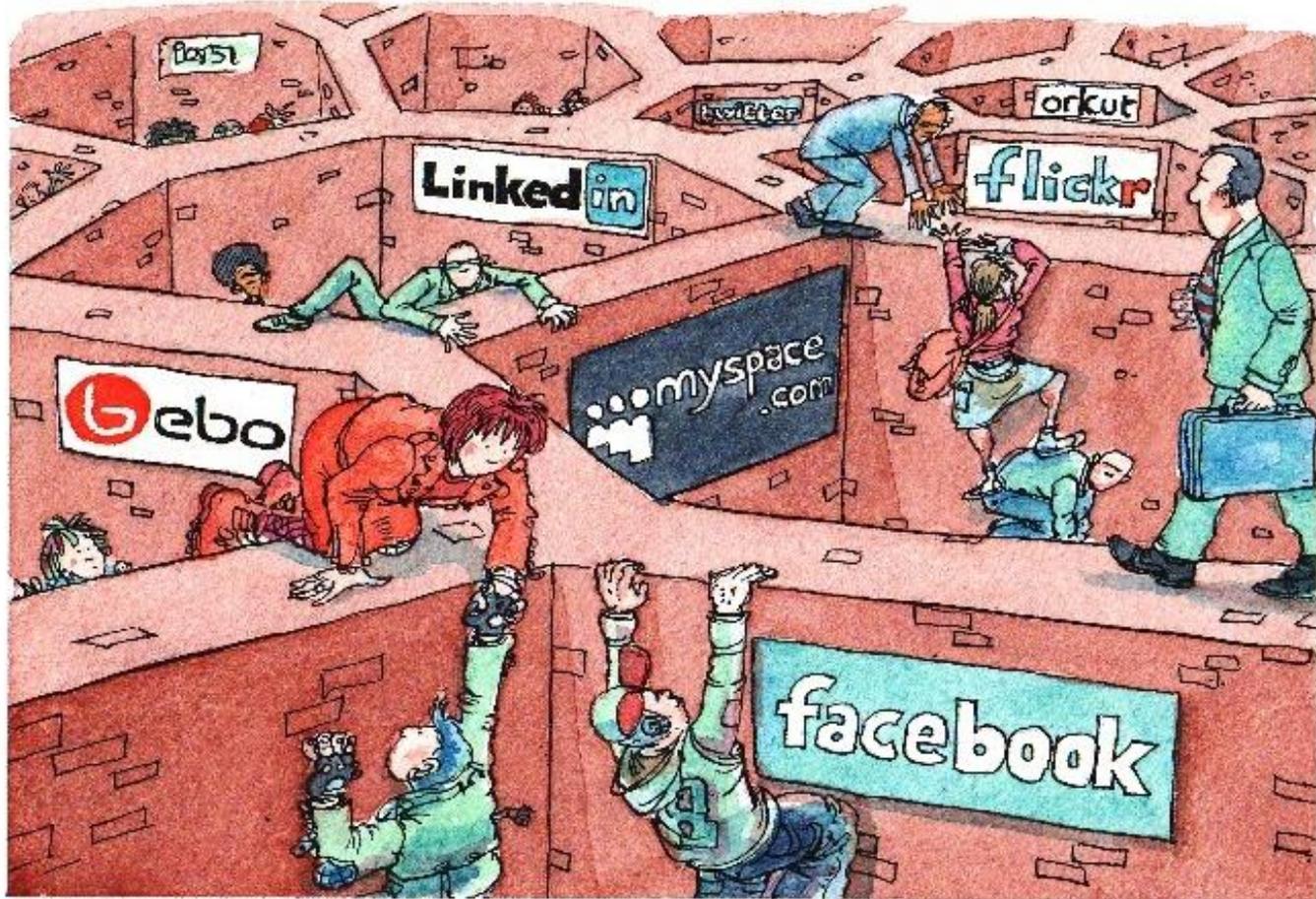


Infographie Le Monde

Sources : ValleyMag août 2007, Datamonitor



Return to “Walled Gardens”?





Web 3.0*

The Semantic Web

- Web 1.0 = Linked Documents
- Web 3.0 = Linked Data (Semantic Web)
 - Web becomes a global, relational database
 - Potential to break down walled gardens of Web 2.0 applications



**New York Times, InternetNews*



Put Government Data into Web 3.0

- Movement to make non-confidential **government data available** to public, and in **machine-readable** formats
- Use of free, open, semantic **Web standards** will facilitate **search, integration, discovery, transparency**
- “Open data”: a focus of open **W3C eGovernment Interest Group meeting**, 12-13 March 2009





New: Video on the Web

- Make video 1st class citizen of the Web
- Linking
 - to and from
 - spatial, temporal
- Description
- Best practices





Delivering Web Content to Simple Mobile Phones

10 ways to mobilize



Design for One Web



Rely on Web standards



Stay away from known hazards



Be cautious of device limitations



Optimize navigation



Check graphics & colors



Keep it small



Use the network sparingly



Help & guide user input



Think of users on the go

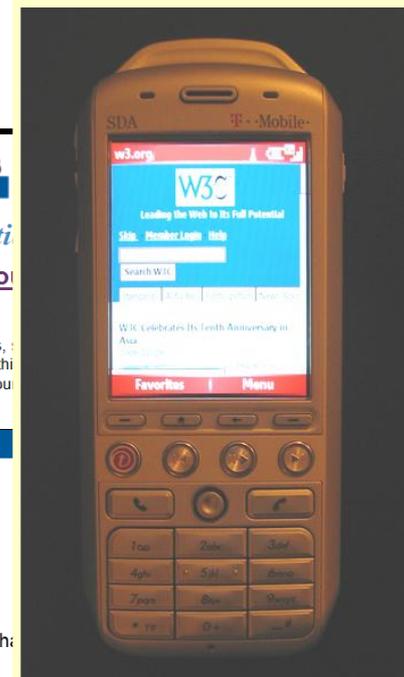


W3C WORLD WIDE WEB consortium
Leading the Web to Its Full Potential

[Activities](#) | [Technical Reports](#) | [Site Index](#) | [New Visitors](#) | [About W3C](#)

The World Wide Web Consortium (W3C) develops interoperable technologies (specifications, guidelines, potential. W3C is a forum for information, commerce, communication, and collective understanding. On the technologies and ways to [get involved](#). New visitors can find help in [Finding Your Way at W3C](#). We encourage about W3C Membership.

Validator Donation Program	News
<p>VALIDATOR Make a donation or become a sponsor of the W3C Validator.</p>	<p>Improving Access to Government through Better Use of the Web: First Public Draft</p> <p>2009-03-10: The eGovernment Interest Group has published the First Public Working Draft of Improving Access to Government through Better Use of the Web. The term "eGovernment" refers to the use of the Web or other information technologies by governing bodies (local, state, federal, multi-national) to interact with their citizenry, between departments and divisions, and between governments themselves. Recognizing that governments throughout the World need</p>
<p>W3C Supporters</p> <p>Help W3C by making a donation through the W3C Supporters Program.</p>	
<p>Employment</p> <p>W3C is seeking a Managing Director.</p> <p>Current W3C Fellows Program openings are Business and Technology Communications Specialist; Software Engineer.</p>	
<p>W3C A to Z</p>	



Standards and Technology (NIST)



NIST, a world-class research and technology laboratory within the U.S.



One Web, Accessible via a Range of Interactions

W3C Multimodal Interaction Activity



Tom Cruise in
Minority Report
Spielberg (2002)



WORLD WIDE WEB
FOUNDATION

One Web Working Seamlessly Across All Devices

W3C Ubiquitous Web Activity





Accessibility for People with Disabilities and Our Aging Population



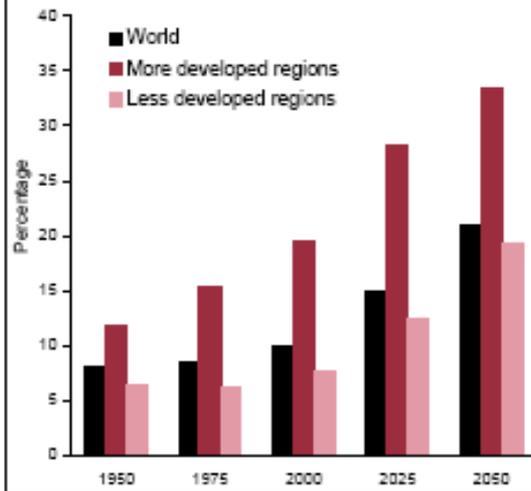
- Barriers for millions with disabilities
- Aging population = more disabilities
- Often mandated
- Huge carry-over benefits

Developing a Web Accessibility Business Case

- Web Accessibility Initiative @ W3C

– New Web Content Accessibility Guidelines 2.0

Figure 10. Proportion of population aged 60 or over: world and development regions, 1950-2050



More developed regions have relatively high proportions of older persons



Plans



Opportunity

Fundraising Goals

- Endowment of \$30M growing to \$200M
- \$10M/yr toward Programs

Types of Support

- Major grants
- Grassroots contributions
- In-kind and pro-bono

Key Benefits

- High impact per investment
- Scalable and sustainable
- Expertise, track record, credibility, with focus on the Web





Conclusion

- **The Web Foundation - about ready to launch**
- **Mission = globally unique, critically important**
- **Resources = experienced and world-class**
- **Impact = significant, scalable, multiplicative**
- **There is now a unique opportunity to become a founding partner, and work with the Web Foundation to advance the Web, connect humanity and empower people**



Thank You

For more information:
steve@webfoundation.org
<http://webfoundation.org/>



Extra Slides



A world in which all people can ...

- communicate with each other on the Web
- author and access the Web's resources
- regardless of:
 - language
 - ability
 - location
 - gender
 - income ...





A world in which all people are ...

- empowered by the Web ...
- through new opportunities for
 - creativity
 - collaboration
 - commerce





A world in which the Web ...

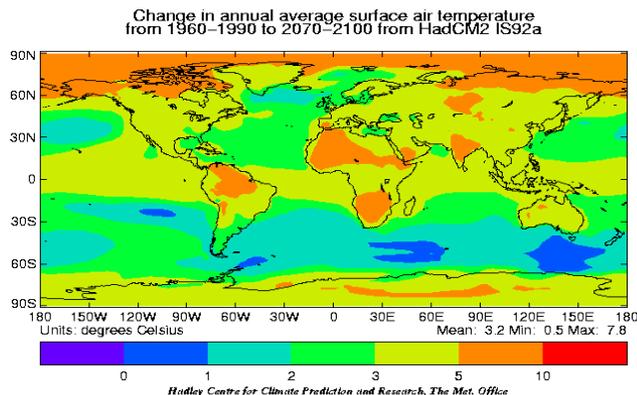
- is of increasing value
 - all human knowledge
 - all languages
- poses fewer risks
 - security
 - privacy
 - trust





A world in which the Web ...

- plays an increasingly vital role in:
 - reducing poverty and conflict
 - providing healthcare and education
 - reversing global warming
 - spreading good governance
 - addressing other grand challenges





Objectives > Programs > Activities

... from Mission to Impact

Objectives

Useful Content
and Services

Usable by All People

Understand,
Improve,
Strengthen

One Web that is
Free and Open

Programs

Web in Society Programs

Bottom-up / Focused goals

- Accelerate opportunities -- within particular populations and applications -- for benefit via the Web
- First program, Web for Development

Web Leadership Programs

Top-down / Big picture

- Support Web science to understand and improve the Web over time
- Support emerging and proven Web standards to ensure that the Web works today and tomorrow
- Plan future programs for Web in Society
- Maintain "Web Index" as measure of Foundation's success wrt its mission

Activities

Community
Building

Science

Standards

Tools

Training

Deployment



Numbers (2008)

Web pages: ~1,000,000,000,000

World population: ~6,700,000,000

Internet/Web users: ~1,500,000,000

Mobile subscribers: ~4,000,000,000

Living on \$1.25/day or less: ~1,400,000,000

Under-nurished: ~920,000,000

Illiterate: ~900,000,000

Etc., Etc., Etc.



What Do You Mean, “One Web”?

... the same information is available to all users, regardless of who they are, where they are, what systems they use, or how they are connected.



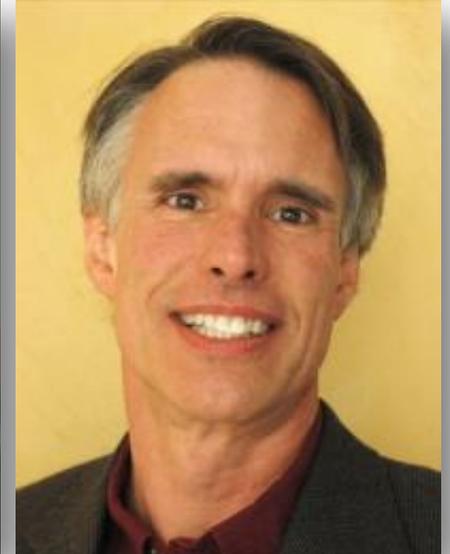
Leadership and Structure

Leadership

- Tim Berners-Lee, Founder
- Steve Bratt, CEO

Governance

- Main Operating Board
- Development Board
- Visionary Board



Organizational Structure

- Geneva, Switzerland - HQ
- “Friend’s of” Foundations initially in US and UK



Prioritizing Challenges and Foundation's Response

By looking at people around the globe based on their level of human and ICT development, we are able to identify and prioritize the types of interventions with the greatest potential impact

**Usable by All People
Useful Content and Services**

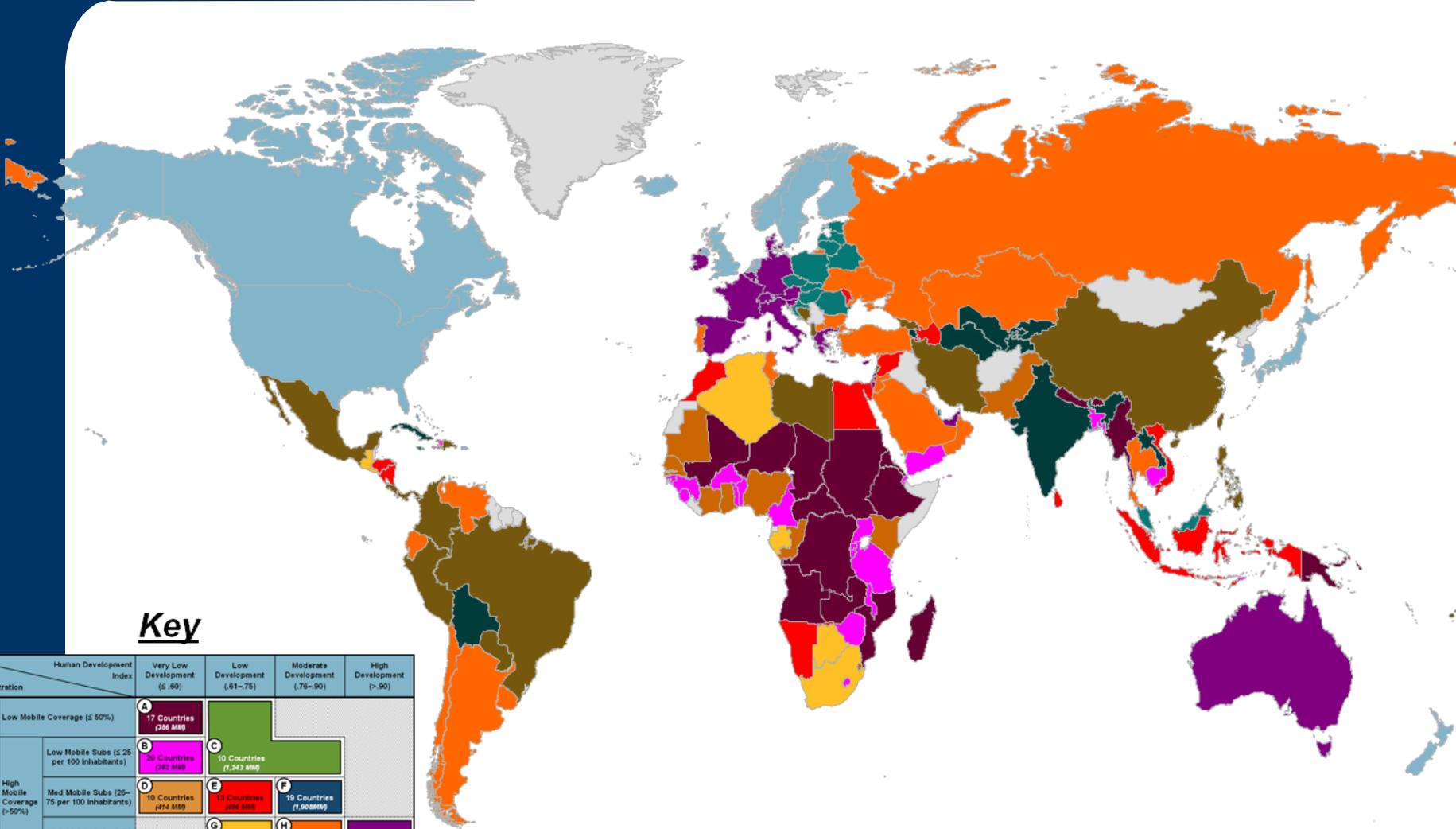
Human Development Index		Internet and Mobile Usage					
		Very Low Development (≤ .60)	Low Development (.61-.75)	Moderate Development (.76-.90)	High Development (>.90)		
Low Internet Penetration (≤ 35%)	Low Mobile Coverage (≤ 50%)	A 17 Countries (386 MM)	C 10 Countries (1,243 MM)				
	High Mobile Coverage (>50%)	Low Mobile Subs (≤ 25 per 100 Inhabitants)				B 20 Countries (392 MM)	
		Med Mobile Subs (26-75 per 100 Inhabitants)	D 10 Countries (414 MM)			E 13 Countries (496 MM)	F 19 Countries (1,908 MM)
		High Mobile Subs (>75 per 100 Inhabitants)	G 7 Countries (106 MM)			H 20 Countries (512 MM)	J 16 Countries (337 MM)
Moderate Internet Penetration (36%-65%)	I 17 Countries (138 MM)						
High Internet Penetration (>65%)				K 14 Countries (621 MM)			

One Web that is Free and Open

Understand Advance, Strengthen



Plotting the Segments Around the Globe



Key

		Human Development Index			
		Very Low Development (≤ .60)	Low Development (.61–.75)	Moderate Development (.76–.90)	High Development (>.90)
Internet Penetration	Low Internet Penetration (≤ 35%)	Low Mobile Coverage (≤ 50%)	A 17 Countries (286 MM)	C	
		High Mobile Coverage (>50%)	B 20 Countries (292 MM)	D 10 Countries (414 MM)	E 13 Countries (494 MM)
	Moderate Internet Penetration (36%–65%)	Low Mobile Subs (≤ 25 per 100 Inhabitants)		F 19 Countries (1,908MM)	
		Med Mobile Subs (26–75 per 100 Inhabitants)		G 7 Countries (166 MM)	H 25 Countries (312 MM)
High Internet Penetration (>65%)	High Mobile Subs (>75 per 100 Inhabitants)		I 17 Countries (174 MM)	J 18 Countries (177 MM)	
				K 14 Countries (821 MM)	

Analysis by Monitor Group, based on data from UNDP; World Bank; ITU



~ 4 Billion Mobile Phones Many in Developing Countries

The Foundation's Web for Development Program will, in part, put into action concepts and plans developed by the:

W3C Mobile Web for Social Development Interest Group

Workshops:

- Bangalore December 2006
- Sao Paulo June 2008
- Mozambique April 2009



Stories that give hope

- How mobile phones helped a fishing community in India
- Impact of mobile phones on grain markets in Niger
- Text messages empowering poor farmers
- More stories and resources:
 - <http://www.w3.org/2008/MW4D/wiki/>



State of the Web for the Developing World?

- Similar to the Web in the developed world ...
... but in the mid 1990s
 - Base of billions of under-served people
 - Huge potential for value – beyond voice and text
 - Huge base of potential content providers, including entrepreneurs, NGO, governments, individuals
- But many barriers exist, beyond connectivity
 - Lack of useful content, usable by people speaking under-served languages, with low reading skills, with low computer literacy, affordability, etc.
 - Lack of awareness, tools, training



Cause and Effect?

- **The Butterfly Effect (Lorenz)**

- Flaps wings in Brazil =>
...Tornado in Texas

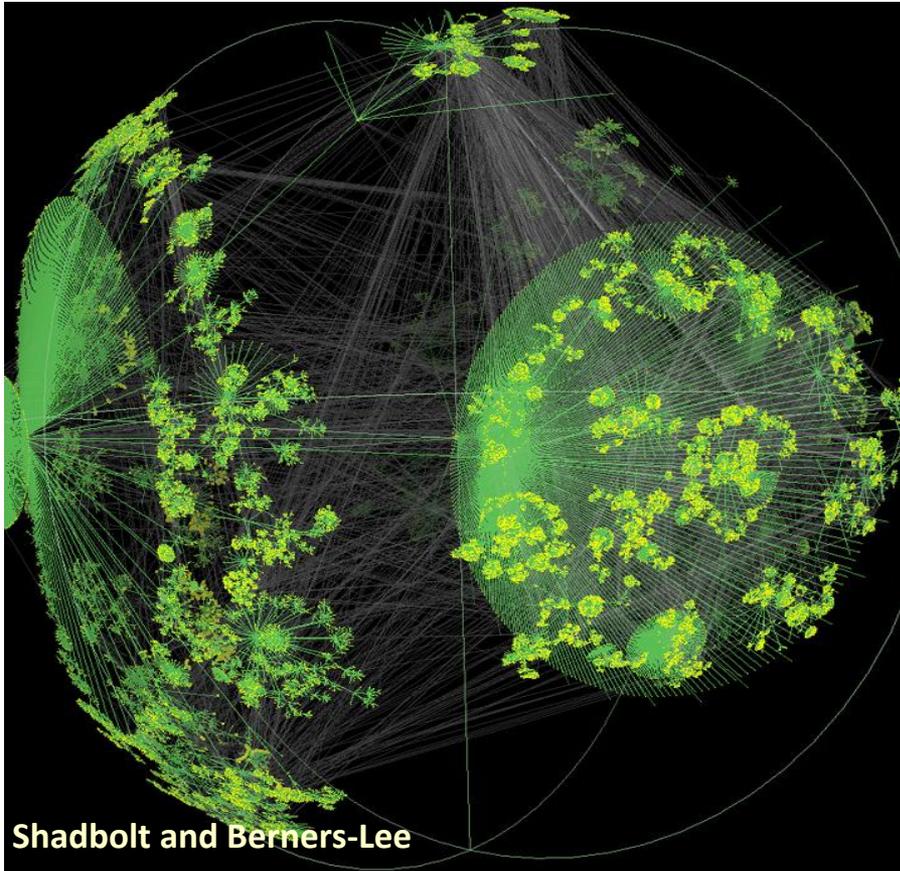


- **The Web Effect**

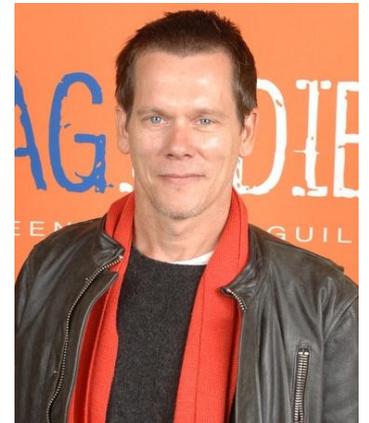
- Facebook communities => secrets of friends
- Blog on Job's "death" => Apple stock drops
- YouTube => 10% of **all** Internet traffic
- Political rumor => drop in polls



Structure of the Web

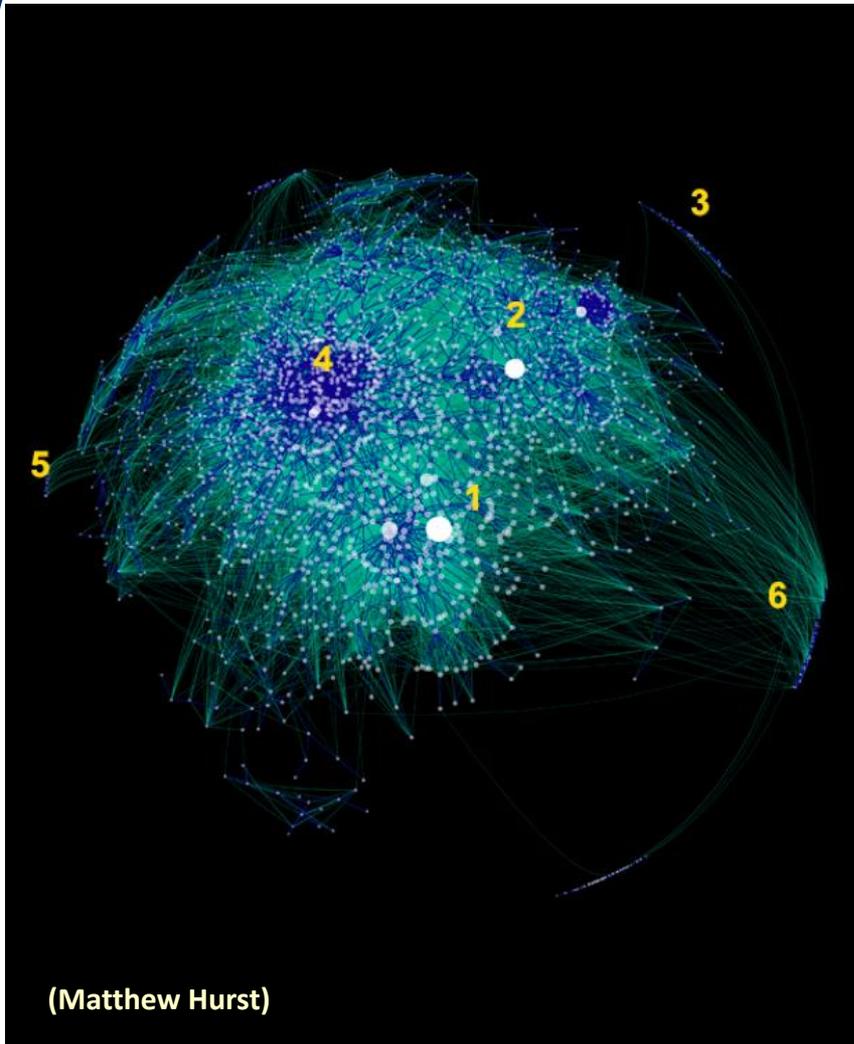


- Scale free
 - Fewer major nodes, many links
 - Hubs, authorities
 - Long-tail, fewer links
- Small world
 - 14 links or less





The Blogosphere



- Growing
 - 2007: 70 million + 120K/day
- Popular
 - ½ million visits/day
- Fakesters
 - +3-7K created per day
- Revolution
- Trust



W3C Sets the Standards that Make the Web Work

- Founded in 1994 by
Tim Berners-Lee
 - inventor of the Web
(current W3C Director)
- Fair and effective process
- Royalty-free patent policy
- Global focus
- 400 Member organizations
- Tens of thousand participating





A Semantic Web that Links Data (and opens huge possibilities)

- Web 1.0 = Web of **Linked Documents**
- Semantic Web = Web of **Linked Data**



Steve → hasHomePage → <http://www.w3.org/People/Bratt/>

- More powerful if each element of triple is a URI
- Web becomes a **global, relational database**
- W3C Semantic Web technologies enable linking, describing, searching, processing, creativity, etc.



More Linkable Data - Including Interfaces to Existing Databases

The image displays a central hub of data services and interfaces, all interconnected and centered around the DBpedia project. The services include:

- Music-brainz**: A music database interface.
- BBC John Peel**: A page for the BBC John Peel website.
- Jamendo**: A music sharing platform.
- Geo-names**: A geographical names database.
- World Factbook**: A database of world statistics.
- Eurostat**: A database of European Union statistics.
- W3C WordNet**: A lexical database for natural language processing.
- Project Gutenberg**: A digital library of free e-books.
- Gov-Track**: A government transparency tool.
- US Census Data**: A database of United States census information.
- DBpedia**: The central hub, providing structured data from Wikipedia.
- FOAF profiles**: A decentralized web of people and their relationships.
- ECS South-ampton**: A Semantic Web application.
- Sem-Web-Central**: A Semantic Web portal.
- Doap-space**: A project profile database.
- Flickr exporter**: A tool for exporting Flickr photos.
- SIOC profiles**: A profile database for the Semantic Web.
- Open-Guides**: A decentralized guide system.
- RFB Book Mashup**: A book recommendation system.
- RKB Explorer**: A research knowledge base.
- DBLP Berlin**: A database of publications from Berlin.
- DBLP Hannover**: A database of publications from Hannover.

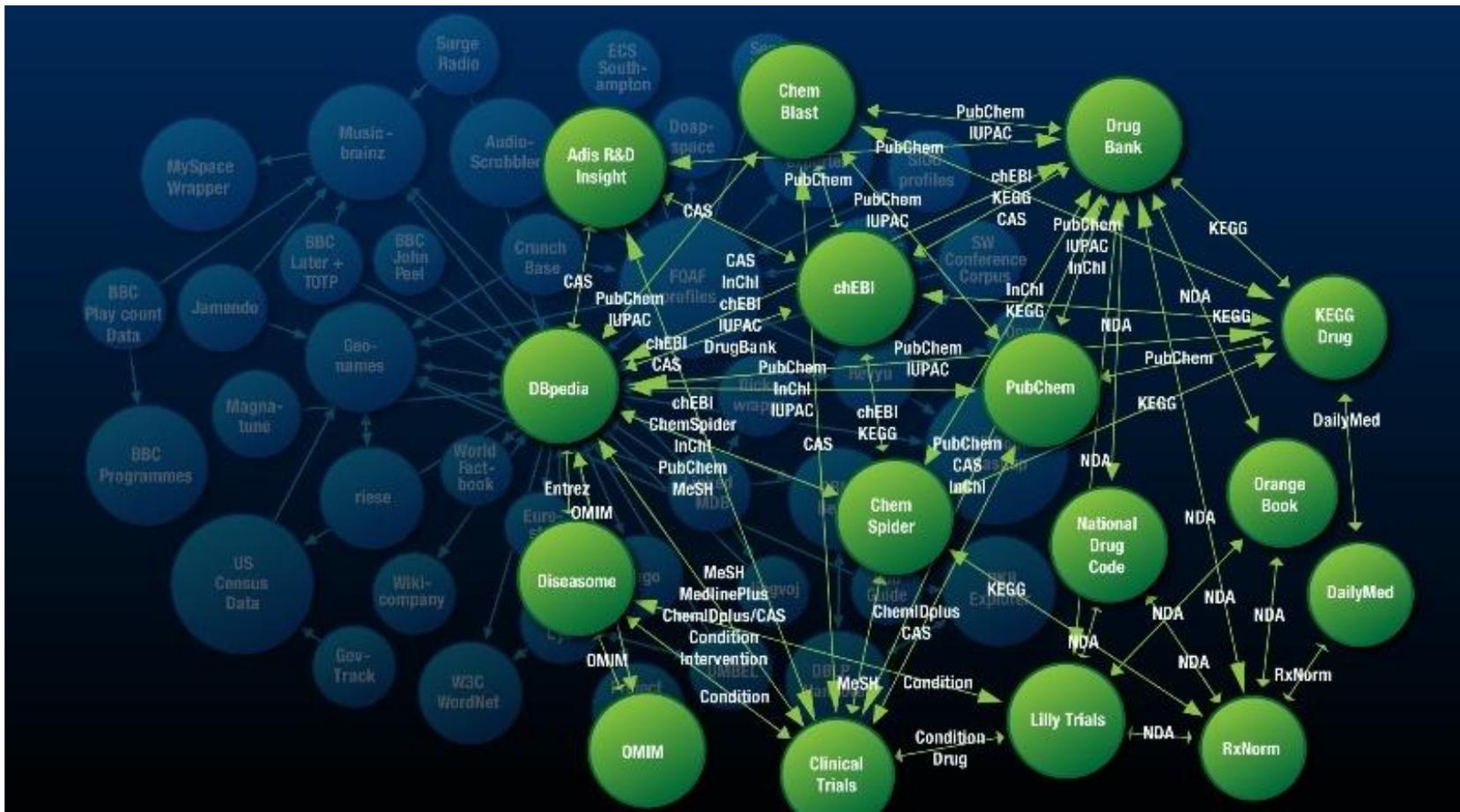
The background features several web pages, including a NNDB page titled "The Wall: Live in Berlin (1990)", a BBC John Peel page, a Jamendo page, a Wikipedia page for Berlin, a World Factbook page for Berlin, an Eurostat page, a DBpedia page, a FOAF profile page, an ECS South-ampton page, a Sem-Web-Central page, a Doap-space page, a Flickr exporter page, a SIOC profiles page, an Open-Guides page, a RFB Book Mashup page, a RKB Explorer page, a DBLP Berlin page, a DBLP Hannover page, a W3C WordNet page, a Project Gutenberg page, a Gov-Track page, a US Census Data page, and a Music-brainz page.



- Energy: Oil and Gas
- Social networks (to one social Web)
- Video
- Health Care and Life Sciences
- Government
- Many places
 - Semantic Technologies Conference



Expanding to Data that is Expediting Drug Discovery (and many other activities)





Ubiquitous Web: Interoperable Data Across a Wide Range of Devices

- It's cold outside, and you are returning from the airport.
- Driving home, you use the Web through your mobile phone or car display to:
 - Activate your home heating system
 - Turn off the security alarm
 - Start the oven
 - Open the garage door
- **Open solutions needed**

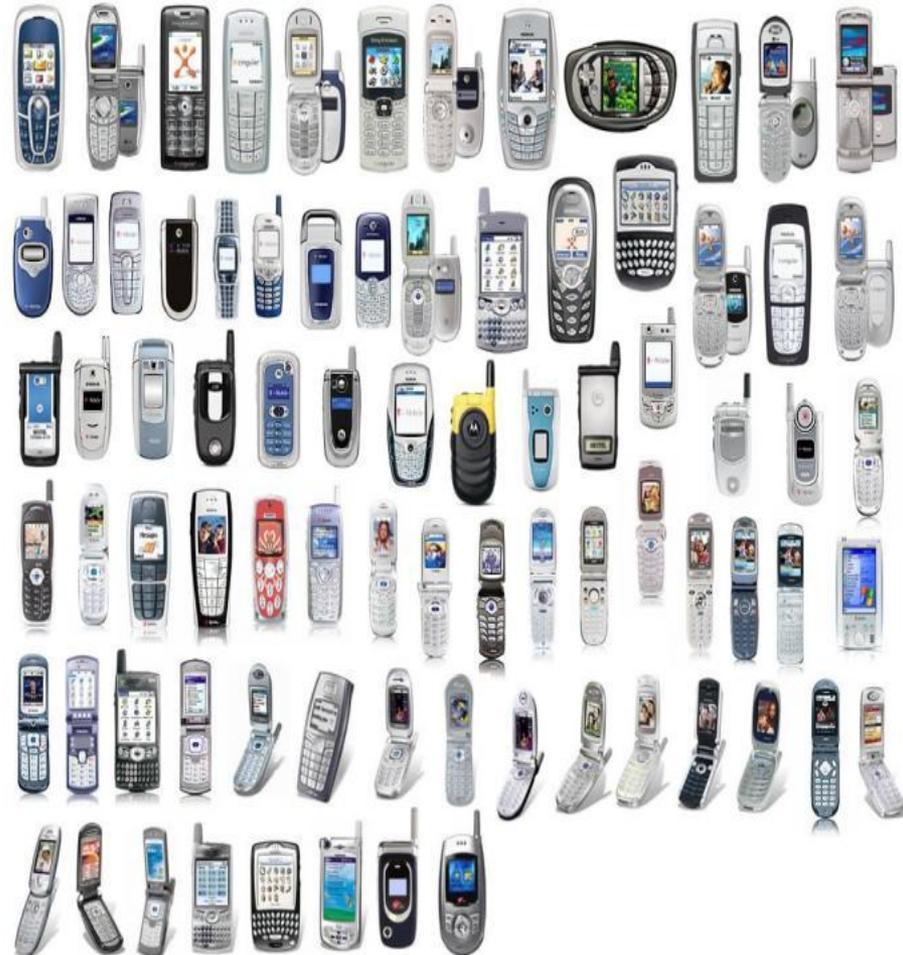




Web on Everything at W3C

Ubiquitous Web Activities

- Mobile Web Initiative
- Multimodal Interaction
- Ubiquitous Web Apps
- Voice Browser





Mobile Web: Next Generation

- Mobile Web 2.0 applications
- Mobile search, social networking, ads
- Location-based services
- Mobile video





Mobile Advertising

- Challenges - Space, standards
- Wildly-varying growth projections (AccuraCast)
 - Global now:
 - \$1 to 2B ?
 - Global by 2112:
 - \$1B (Forrester)
 - vs.
 - \$21B for Google alone (Thomson)



Ad Demand Meter



Page views per second across the AdMob network

Every day tens of millions of ads are delivered to mobile device users through the AdMob Marketplace. This sampling of live ad requests illustrates the volume and diversity of available inventory on the AdMob network.

- Learn more about advertising on mobile sites.
- Learn about serving ads on your mobile site.

[AdMob Live Map](#)



Temporal and Spatial Linking: Make Video Data 1st Class Citizens of the Web

Click on sponsor's logo
and link to special
promotional opportunities.

Interview
post-World Handball
Championships
Paris, January 2009



Annotate remarks and
provide captions that can
be linked to and searched.

Send link to first five seconds
of video clip to a friend.



Web Foundation's Programs Will Help Address Web Aspects in Many Domains

- Human communities
 - Geographic/cultural/socio-economic groups, women, youth, elderly, people with disabilities ...
- Content topics
 - Health care, climate change, distributed energy, economy, commerce, government, media, education, disaster management ...
- Policy topics
 - Network policies, open standards, authenticity, privacy, democracy, freedom of expression, equality for all ...
- Technology topics
 - Social networking, collaboration, open data, voice, security, identity ...
- Other ideas
 - Competitions/awards, fellowships, hackfests, micro-awards, conferences, publications ...

