ROOM BOAT BY EACH ROOME

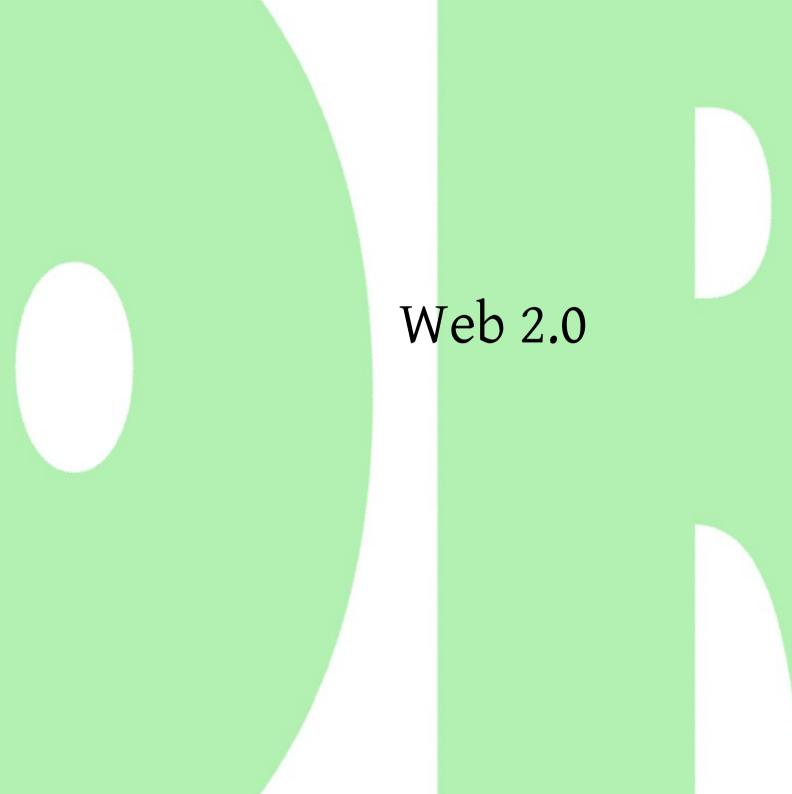
罕3世 2.0, 6图析

анжьой вханм

Otvoreno računarstvo Web 2.0 RIA (AJAX)

Mario Žagar





"Web 1.0"



- Statičke stranice
 - Ili dinamičke stranice za jednostavnije uređivanje
- Read-only Web sjedišta
 - Čitatelji su pasivni promatrači, sakupljači informacija
- Jedan ili nekolicina "urednika" sadržaja
 - Naglasak na informacijama koje su "urednici" odabrali
 - Informacije se rijetko mijenjaju
- Svaki zahtjev upućen poslužitelju osvježavanje čitave stranice

Web 1.0 - Primjer





ASSOCIATE'S DEGREES

Associate of Arts in Business
Associate of Arts in Health Care Administration
Associate of Arts in Information Technology

BACHELOR'S DEGREES

Bachelor of Science in Business/Marketing Bachelor of Science in Criminal Justice Administration Bachelor of Science in Management



Master of Business Administration Master of Arts in Education/Curriculum and Instruction Master of Information Systems

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gift.

about a broad range of topics such as art, science,



Life & Legacy

Charles I, Charles the Great, Carolus Magnus, King of the Franks, King of the Lombards, Holy Roman Emperor, the "New Constantine,"

the "New David," Europae Pater ("Father of Europe")—there were many names and titles for the extraordinary medieval ruler known commonly as Charlemagne. Our new coverage of Charlemagne details his life, reign, military adventures, and lasting influence on the social, cultural, and political life of Europe.

- Life Assessment Images
- Video: Aachen & Charlemagne
- Features Archive

Daily Features

Biography of the Day



The 28th U.S. president, Woodrow

This Day in History



The original Westminster Abbey, located



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Advocacy for Animals Dedicated to understanding

and protecting the animals

"Web 2.0"



"Web 2.0 seems to be like Pink Floyd lyrics: It can mean different things to different people, depending on your state of mind."

Kevin Maney, USA Today (2005)

"Web 2.0"



- Nitko ne zna što je Web 2.0 [©]
- Više od dohvata informacija
- Suradnja, dijeljenje, kreativnost
- Međusobno povezane usluge
- Sadržaj kreiraju korisnici
- Nema novih tehnoloških specifikacija

Suradnja čini svijet boljim!





navigation

- Main Page
- Contents
- Featured content
- Current events
- Random article

interaction

- About Wikipedia
- Community portal
- Recent changes
- Contact Wikipedia
- Donate to Wikipedia
- Help

search



toolbox

- What links here
- Related changes
- Upload file
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main page

discussion

view source

history

41,179 have donated.

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» Read more

From the fundraising blog - Wikimedia Commons: The Power of Free Content Media

"Thanks for delivering knoweldge to the whole globe." - Anon.

Welcome to Wikipedia,

the free encyclopedia that anyone can edit.

2,148,963 articles in English

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History

Science

Society

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- Biography
- Mathematics
- Technology

Geography

All portals

Overview · Editing · Questions · Help

Contents \cdot Categories \cdot Featured content \cdot A–Z index

Today's featured article



William Bruce was a Scottish gentleman-architect, "the effective founder of classical architecture in Scotland", as Howard Colvin observes. A key figure in introducing the Palladian style into Scotland, he has been compared to the pioneering English architects Inigo Jones and Christopher Wren, and to the contemporaneous English introducers of French style in domestic

architecture Hugh May and Roger Pratt. Bruce played a role in the Restoration of Charles II, carrying messages between the exiled king and General Monck, and was rewarded with lucrative official appointments, including that of Surveyor General of the King's Works in Scotland, effectively the "king's architect". His patrons included the Duke of Lauderdale, the most powerful man in Scotland at the time. Despite his lack of technical expertise, he worked with competent masons and professional builders, to whom he imparted a classical vocabulary; thus his influence was carried far

In the news

- Former Pakistani Prime Minister Benazir Bhutto (pictured) is assassinated in Rawalpindi, Pakistan
- The Nepalese government agrees to abolish the country's 240-year-old monarchy.
- The People's Power Party led by Samak Sundaravej wins a plurality in parliament after the general elections in Thailand.
- The Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia join the Schengen zone of the European Union.
- After more than 190 days of discussion, an interim government led by Guy Verhofstadt is formed in Belgium.

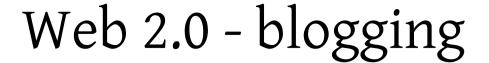
Ključne riječi Weba 2.0



- blogging
- social bookmarking
- social networking
- wiki
- RSS
- podcasting
- tagging
- mashup
- Web API









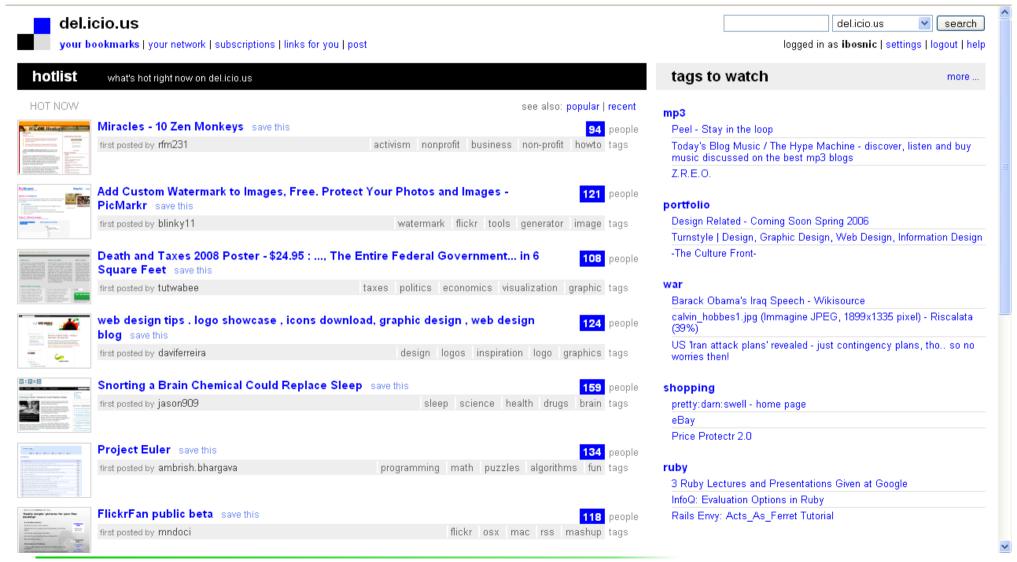
http://www.blogger.com/







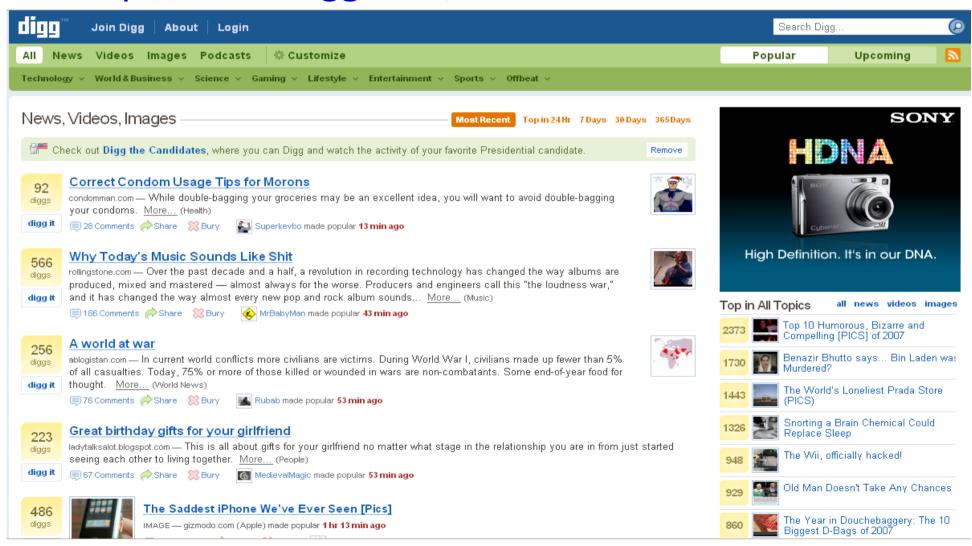
http://del.icio.us/







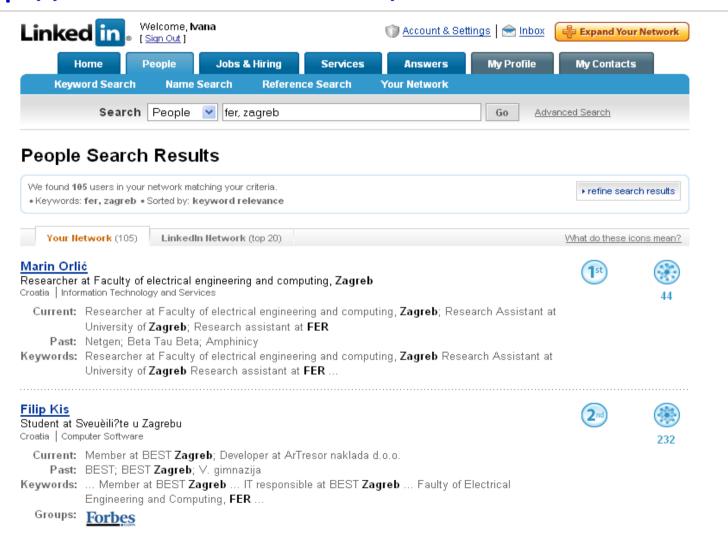
http://www.digg.com/







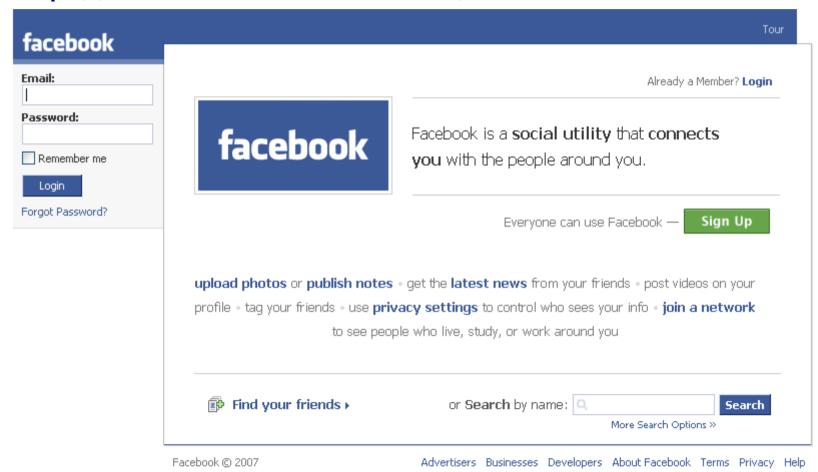
http://www.linkedin.com/







http://www.facebook.com/

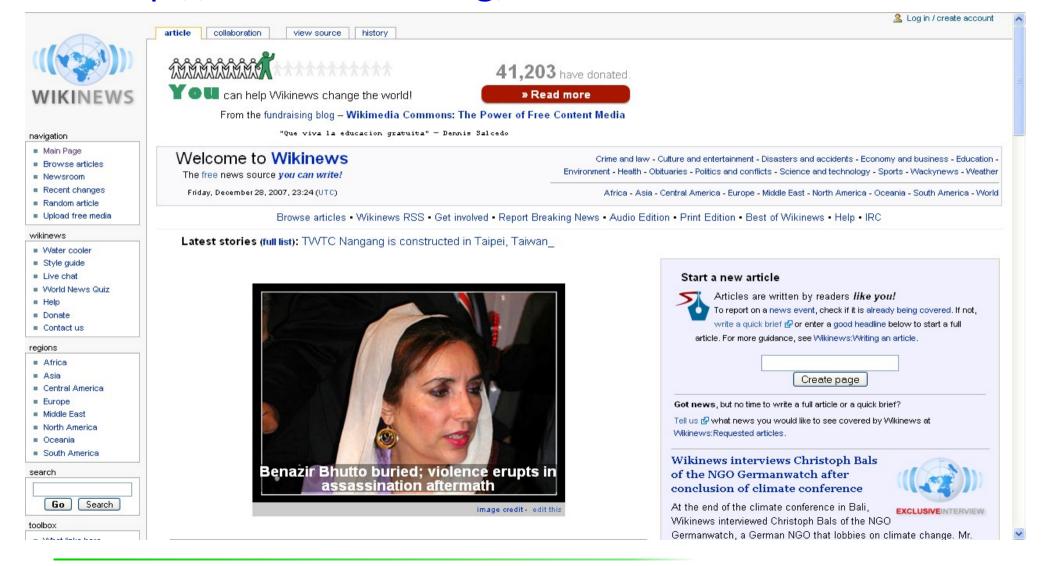


Otvoreno računarstvo - Web 2.0, Ajax

Web 2.0 - wiki



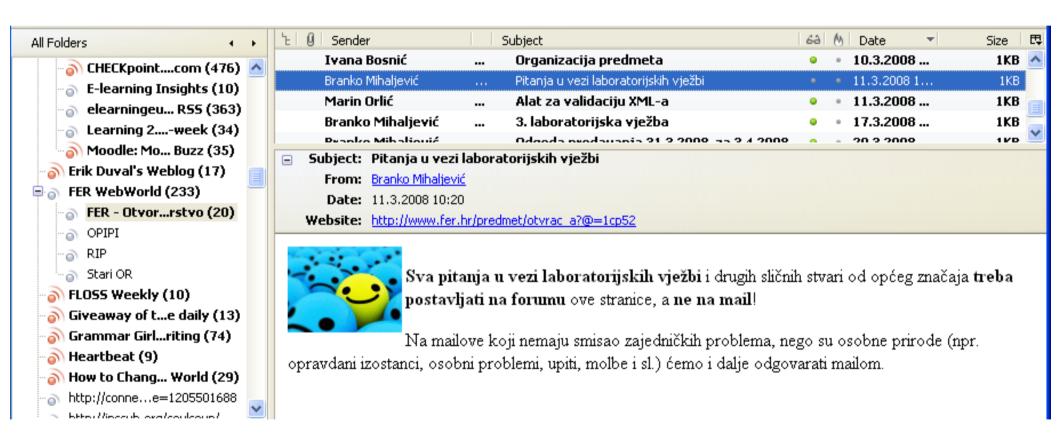
http://en.wikinews.org/



Web 2.0 - RSS



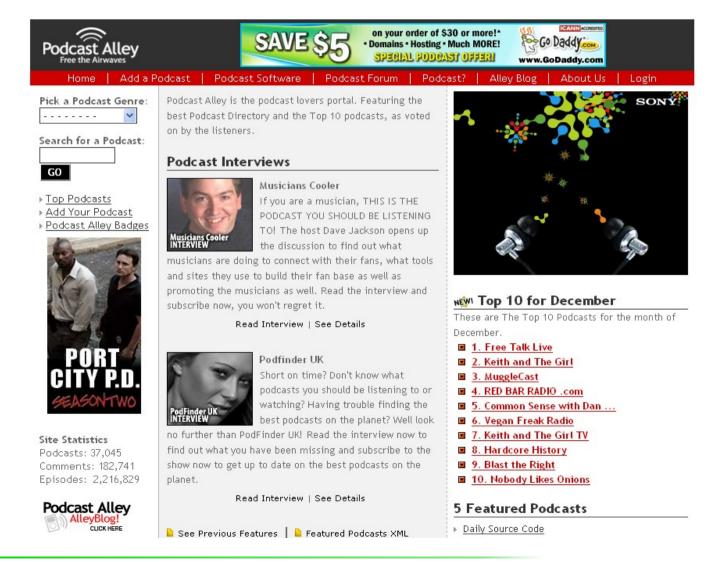
RSS Otvorenog računarstva u Thunderbirdu



Web 2.0 - podcasting



http://www.podcastalley.com/

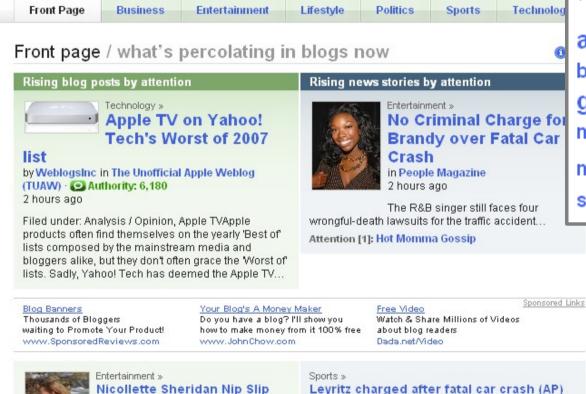


Web 2.0 - tagging

🛂 Technorati



http://www.technorati.com/



in Yahoo Sports

Former Major League Baseball player Jim Leyritz was

crashed into hers. Leyritz, who turned 44 on Thursday,

arrested Friday on charges of driving under the

faces charges of DUI manslaughter and DUI...

influence and killing another driver after his vehicle

1 hour ago

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What bloggers are saying now

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What bloggers are saying now

apple barack obama baseball blogging britney spears christmas google hillary clinton internet media microsoft mitchell report mlb movies MUSIC off software steroids video wij

Contributing bloggers



Sheridan and her boyfriend Michael Bolton enjoyed

some holiday down time on the beach in St. Barts.

3 hours ago

by BittenAndBound in Bitten and

Bound: The Not So Pretty Side of

As we reported yesterday, Nicollette

Hollywood · Q Authority: 346

Web 2.0 - tagging





Predsjednik Vlade dr. sc. Ivo Sanader primio je danas u zgradi Vlade Republike Hrvatske Sanju Jovanović koja je osvojila zlatno odličje i postavila novi svjetski rekord na 50 m ledno na Europskom... više >





Potpredsjednica Vlade u posjetu obitelji poginulog hrvatskog branitelia i

Potpredsjednica Vlade u posjetu Specijalnoj bolnici za kronične bolesti dječje dobi u Gornjoj Bistri priopćenje



Web 2.0 - mashups



The Death of High

2520Fidelity: Rolling

http://www.digglicious.com/



digg.com is a social news site and del.icio.us is a social bookmarking or tagging site. Below you can observe a live view of the action on these two sites without having to reload your browser. If a site interests you click on it to check it out, then return here and use the handy links to go directly to del.icio.us to bookmark it or digg.com to digg it! Dont forget to Add DiggLicious.com to del.icio.us

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Websites...

Discover the hidden gems of the web together Benazir Bhutto

Former Pakistani leader Bhutto Assassinated! Read more. Free OpenID

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Firefox formfill & password manager by the Download Firefox 2

Get it for free! And help spread the word.

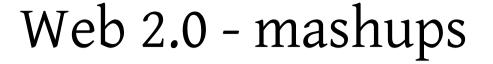
Condemn Death of Bhutto

We condemn Benazir Bhutto's assassination.

Ada bu Coogle

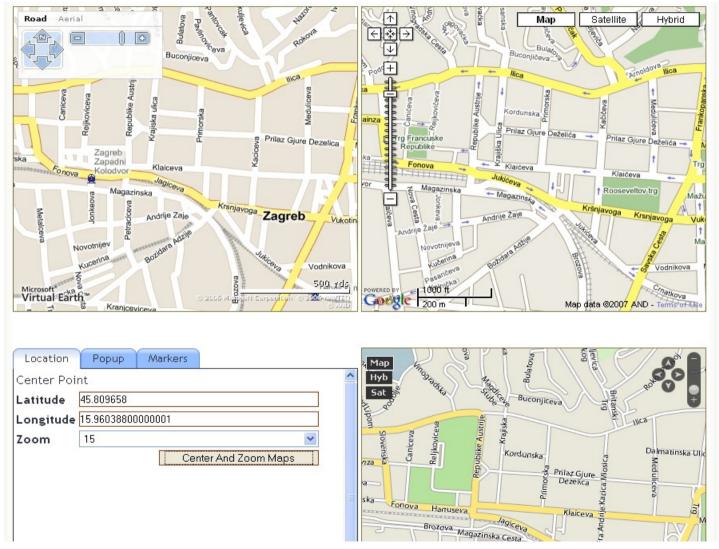
Ads by Google Live Activity Digg WWW Del Icio US 14 4805 Jajah Encrypt Bookmarks http://www.jajah.com/ del.icio.us tags... VoIP VOIP Stuart software voip telephony phone telephonie Hilfreich web skype sip Internet Tool What's hot Now utility Cool SIP sources cases Telephony Software Video David Blaine 820 Film Techniques of Alfred Hitchcock - suspense, camera angles, style, editing, basics 162 Street Magic Part http://www.borgus.com/think/hitch.htm del.icio.us tags... **Topless Woman** Lured Perverts in Max Design - CSS Centering - fun for all! A http://www.maxdesign.com.au/presentation/center/del.icio.us tags... css Police Sting (NSFW) List of confirmed FRAPS show fps, record video game movies, screen capture software 🗸 49 iPhone 1.1.3 firmware features del.icio.us tags... software video googleearth hack investigación screengrabs Graphics capture 3d animation A Collection of cool Tools machinema videoGame Hilariously List of confirmed iPhone 1.1.3 firmware features Frightening Olan http://www.gearlive.com/news/article/q407-iphone-113-firmware-feature-gallery/ Mills Photos How to Do a Reverse Switch lunch at noon http://www.lunch-at-noon.com/ del.icio.us tags... webdesign flash What's hot Today 1244 ScienceBlogs / http://scienceblogs.com/ del.icio.us tags... science,culture, blog science research culture technology blogging education Culture Internet

news reference Science writing blogs rationalism newsaggregator weblog daily politics favorite:science





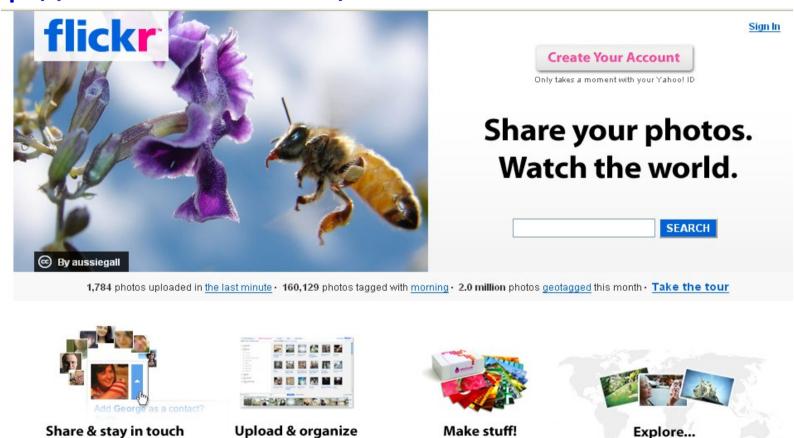
http://www.rockstarapps.com/samples/map-compare



Web 2.0 - Web APIs



http://www.flickr.com/



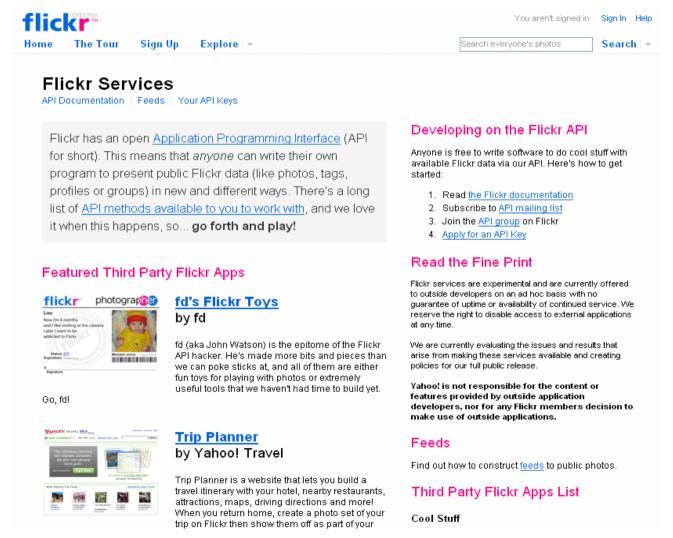
Take the Tour

Explore Flickr Blog, the World Map, Camera Finder or interesting photos from the last 7 days.

Web 2.0 – Web APIs



http://www.flickr.com/services/



Rich Internet Applications (RIA)

Asynchronous JavaScript and XML (AJAX)

Rich Internet Applications (RIA)



- R = Rich / Rapid
- White paper March 2002, Macromedia
 - koncept i ranije Microsoft, Forrest Research,....
- Brza izrada Web aplikacija s bogatim korisničkim sučeljem
- Aplikacije slične samostalnim (standalone) desktop aplikacijama
 - Rade unutar preglednika Weba
 - Ne zahtijevaju instalaciju
 - Nije potrebna isporuka nadogradnje aplikacije
- Procesiranje i vizualizacija na klijentu, stanje programa i podataka na poslužitelju

Rich Internet Applications (RIA)



- Još uvijek u ranoj fazi razvoja i usvajanja
 - zahtjev za modernim preglednicima
 - zahtjev za definiranim normama Weba
 - zahtjev za razvojnom okolinom
 - dodatna interaktivnost zahtijeva i tehnička unapređenja
 - prilagodba korisnika
 - uloga gumba "Back" ima drugi smisao

RIA - razvojna okruženja



- Google Web Toolkit framework(GWT) (2006.)
 - AJAX + Java + Eclipse
- Adobe Flash, Adobe Flex, Adobe AIR (FlashPlayer, AJAX)
- Appcelerator, GNU GPL 2 (open source)
 - Java, PHP, Python, .NET, Pearl, Ruby on Rails
- OpenLaszlo, open sorce
- Curl, MIT Curl, Inc. 2002.
- JavaFX, Java applets, Java applications, Sun
- Silverlight, podskup Windows Presentation Foundation (WPF), XAML, Microsoft
- ActiveX, Microsoft, samo za InternetExplorer
- Mozilla Prism
 - na klijentskoj strani, neovisno o pregledniku

RIA - jezici



- AJAX
 - DHTML(JavaScript, XML, HTML, DOM, XMLHttpRequest)
- XUL (XML temeljen)
 - samo Mozilla Foundation
- Curl
 - W3C, Rich Web Clients Activity, Web Application Format Working Group (originalno DARPA, MIT)
- SVG, SMIL,....

Ajax



- Nije sredstvo za čišćenje niti nogometni klub
- Buzzword
- Asynchronous JavaScript and XML
- Nije tehnologija!



- Skup tehnologija za razvoj Web aplikacija
 - XML format podataka
 - HTML, DOM elementi stranice
 - JavaScript drži sve na okupu



Zašto Ajax?



- Interaktivnost Web aplikacija razmjenom manje količine informacija odjednom
 - Bez potrebe za osvježavanjem cijele stranice
 - Asinkrona Web stranica nastavlja reagirati i za vrijeme slanja upita i čekanja odgovora
 - Ubrzavanje učitavanja stranice
 - Korištenje snage klijenta, smanjenje opterećenja poslužitelja

Uporaba na Web sjedištima



- Validacija obrazaca
- Automatsko dopunjavanje
- Dohvat dijela informacija po zahtjevu korisnika
- Osvježavanje podataka
- Razmjena podataka (mashups)

•

Kako radi Ajax?



XMLHttpRequest

- Mozilla, Opera, Safari, IE7: JavaScript objekt
- IE5, IE6: ActiveX kontrola
- Porijeklo: Microsoft [©]
- Norma: de facto
 - Za sada samo W3C Working Draft
 - http://www.w3.org/TR/XMLHttpRequest/
 - Podržan na različitim preglednicima Weba, platformama i operacijskim sustavima

Kako radi XMLHttpRequest?



- Nije nadnaravan [©]
- 1. Instanciranje objekta
- 2. Povezivanje s URL-om
 - odabir HTTP metode zahtjeva
- 3. Slanje zahtjeva
- 4. Čekanje odgovora poslužitelja (asinkrono!)
 - "život" stranice za vrijeme čekanja normalno nastavljen
- Ako je odgovor OK, poziv funkcije za parsiranje odgovora
- 6. (najčešće) Prikaz rezultata unutar Web stranice



XMLHttpRequest - Primjeri

var r = new XMLHttpRequest(); r.open('GET', 'http://URL/', false); r.send(null); if(r.status == 200) dump(req.responseText);

```
var r = new XMLHttpRequest();
r.open('GET', 'file:///datoteka', false);
r.send(null);
if(r.status == 0)
    dump(r.responseText);
```

```
var r = new XMLHttpRequest();
r.open('GET', 'http://URL/', true);
r.onreadystatechange = function (aEvt) {
    if (r.readyState == 4) {
        if(r.status == 200)
            dump(r.responseText);
        else
            dump("Grješka\n");
    }
};
r.send(null);
```



Demistificirani XMLHttpRequest

```
if (window.XMLHttpRequest) {
    var xmlHttp = new XMLHttpRequest();
}
else
{
    var xmlHttp = new ActiveXObject("Microsoft.XMLHTTP"):
}
xmlHttp.open("GET", "http://www.primjer.hr");
xmlHttp.onreadystatechange = promijeniStranicu;
xmlHttp.send(null);
```

poveži objekt s URL-om i odaberi metodu zahtjeva pošalji zahtjev (u metodi POST, ovdje se dodaju parametri) imenuj funkciju koja će se izvršiti po promjeni stanja zahtjeva



Demistificirani XMLHttpRequest

```
XML zbog DOM
function promijeniStranicu()
                                          parsiranja treba primiti
  if (xmlHttp.readyState == 4) {
                                            S .responseXML
     if (request.status == 200)
        var odgovor = xmlHttp.responseText;
        alert ("Dobio sam " + odgovor);
     else {
        alert ("Nesto loše se dogodilo");
 funkcija koja
                      provjeri je li
                                           provjeri je li
se izvršava pri
                      dovršeno
                                          odgovor OK
  promjeni
                       primanje
stanja zahtjeva
                      odgovora
```

XMLHttpRequest - Primjer (progress)

```
function onProgress(dat) {
    var postoPreneseno = (dat.position / dat.totalSize)*100;
function on Error (dat) {
    alert("Grješka " + dat.target.status + " u prijenosu!");
function onLoad(dat) {
    // ...
var r = new XMLHttpRequest();
r.onprogress = onProgress;
r.open("GET", url, true);
r.onload = onLoad;
r.onerror = onError;
r.send(null);
```

Alternative XMLHttpRequestu



- HTML element <iframe>
 - Služi za prikaz sadržaja jedne Web stranice unutar druge
 - HTTP zahtjev unutar skrivenog elementa <iframe>
 - Odgovor se procesira JavaScriptom
- Dinamički generiran JavaScript
 - Dodavanje elementa <script>
 - Upućivanje zahtjeva Web poslužitelju (npr. PHP skripti), sa željenim parametrima
 - Vraćanje JavaScript kôda s varijablama ili već pripremljenog HTML kôda

Ajax – problemi I



- Mnoštvo JavaScripta
 - Potrebno testiranje i manja prilagodba različitim preglednicima
- Integracija s preglednikom Weba



- Neprirodna funkcionalnost gumba "Back" i "Refresh"
- Teško spremanje "trenutne" stranice u Bookmarks/Favorites
- Korisnik ne očekuje promjenu podataka na dijelu stranice niti čekanje na prijenos podataka
 - Potrebna vizualna upozorenja



Ajax – problemi II



- Optimizacija za pretraživače Web stranica
- Isključen JavaScript?
 - Nedostatak funkcionalnosti graceful degradation
 - Mogući sigurnosni problemi (npr. validacija?)
- (ne)Pristupačnost Web sjedišta
- Problemi su rješivi 😊

Ajax – problemi III

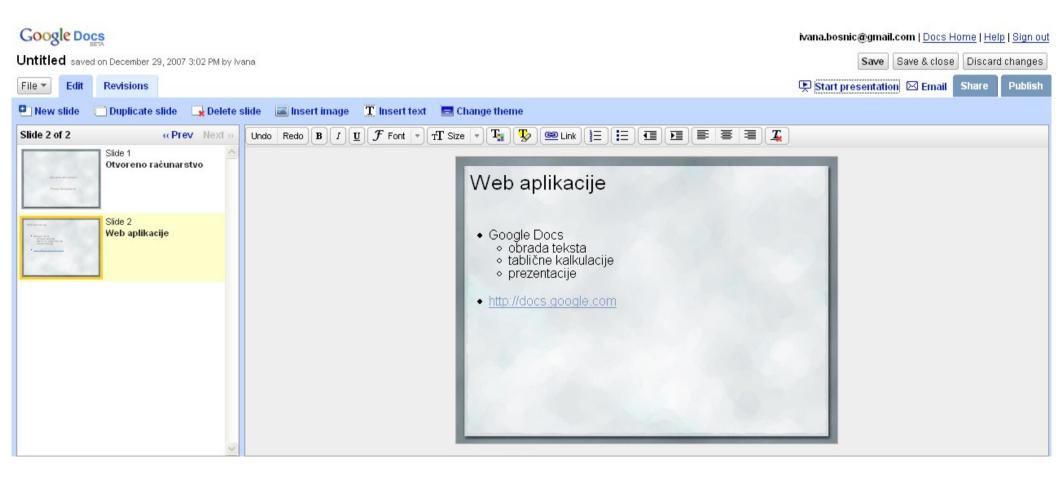


- XMLHttpRequest iz sigurnosnih razloga ne podržava skriptiranje na različitim domenama (cross-domain scripting)
 - Nije dozvoljeno s domene http://www.fer.hr uputiti zahtjev
 - niti na http://ahyco.fer.hr
 - niti na http://maps.google.com
- Različiti načini rješavanja (korištenje drugih metoda)

Web aplikacije (izvorno desktop)



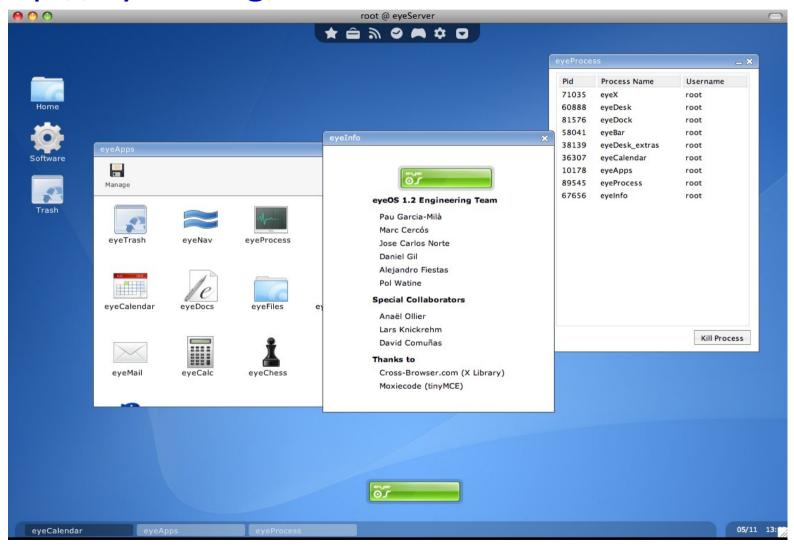
- http://docs.google.com/
 - Obrada teksta, tablične kalkulacije, prezentacije







http://eyeos.org/



RIA tehnologije



- Ajax programska okruženja (frameworks)
- OpenLaszlo
- Adobe Flex
- Microsoft Silverlight



Ajax programska okruženja



- Framework za bržu izradu Ajax Web aplikacija
- Tipovi:
 - Direktni
 - API-ji koji se direktno koriste iz HTML-a,
 - Komponentni
 - Sadrži unaprijed definirane komponente za klijenta
 - Na strani poslužitelja
 - Komponentni model na strani poslužitelja uz Ajax podršku
- Dojo Toolkit, Prototype, Yahoo! UI Library, ASP.NET Ajax

OpenLaszlo



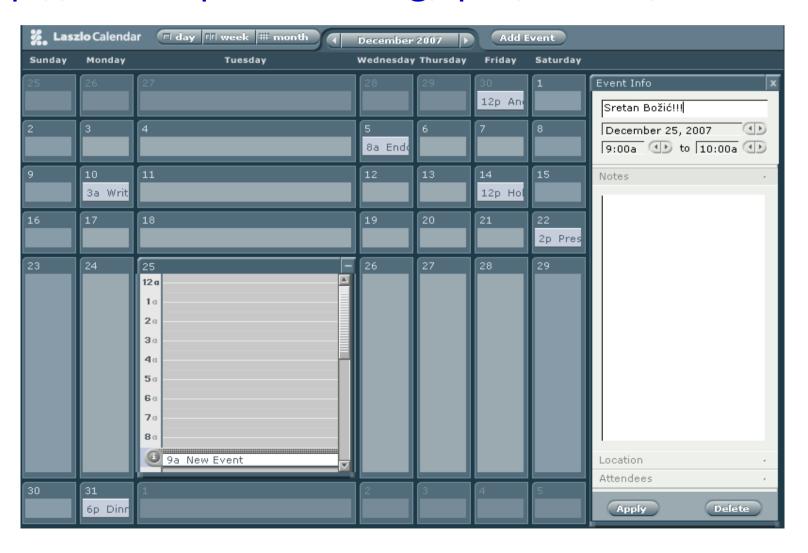
- Open source platforma
- Dijelovi:
 - LZX jezik
 - XML + JavaScript
 - OpenLaszlo Server
 - Java Servlet za prevođenje LZX aplikacija u "izvršne" datoteke
- Prevođenje u:
 - DHTML
 - Flash





Primjer: OpenLaszlo kalendar

http://www.openlaszlo.org/lps4/demos/calendar/ca



Adobe Flex



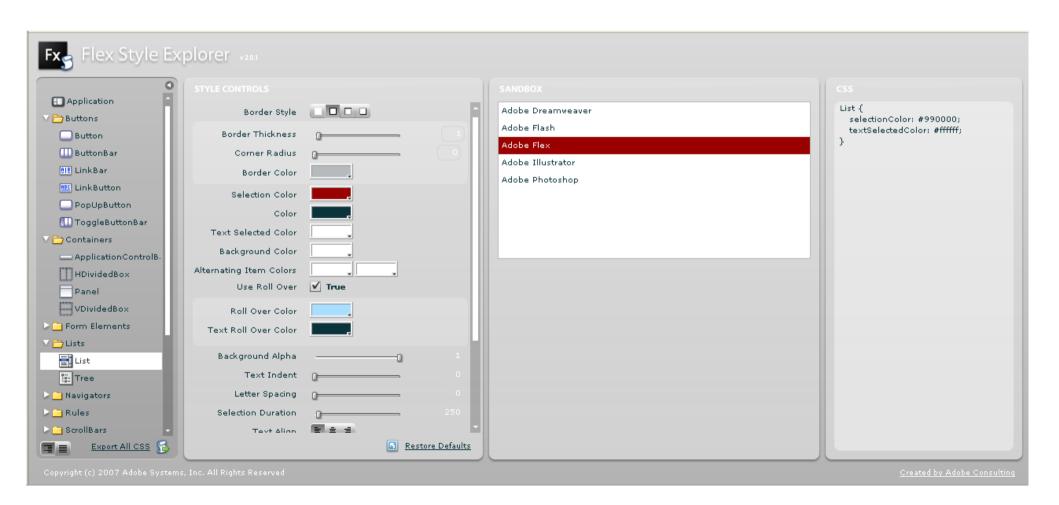
- Platforma temeljena na Adobe proizvodima
- Dijelovi:
 - MXML XML format za izradu sučelja
 - Adobe Flash binarni format za prikaz sučelja
 - potreban Flash Player unutar preglednika Weba
 - ActionScript (sličan JavaScriptu) upravljanje elementima na strani preglednika Weba
 - Povezivanje s Web poslužiteljem kao izvorom podataka
- Adobe Flex SDK Open source
- Flex Builder IDE vlasnički i komecijalan







http://examples.adobe.com/flex2/consulting/stylee;



Microsoft Silverlight



- Baziran na Microsoft .NET platformi
 - Potreban Silverlight player dodatak
- Dijelovi:
 - XAML XML format za izradu sučelja
 - JavaScript, Managed JScript upravljanje elementima na strani preglednika Weba
 - Strana poslužitelja:
 - Silverlight 1.0: dodatak za Visual Studio
 - Silverlight 2.0 (u izradi): bilo koji .NET ili CLI jezik
- Linux podrška: vanjski projekt Moonlight (u izradi)





Primjer: Silverlight Web trgovina

http://catalogsample.members.winisp.net/



Može i obratno... Desktop aplikacije

- Tehnologije za izradu desktop aplikacija, temeljene na Web aplikacijama
- Još u beta fazi razvoja



- Google Gears
- Adobe Integrated Runtime (AIR)
- Mozilla XULRunner





Kamo dalje?



- Web 2.0 se razvio u drugačijem smjeru od izvorno zamišljenog
- Nitko ne zna kako će završiti
- Ogromna snaga koncepta i tehnologije
- Ograničenja tehnologije postaju sve manje važna
- Način primjene sve važniji!

