
Ενότητα 3

Συνεργασία και Web 2.0

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Μαθησιακοί στόχοι

- Κατανόηση των χαρακτηριστικών του Web 2.0 και των αλλαγών που επέφερε σε περιβάλλοντα συνεργασίας
- Εξοικείωση με σύγχρονες τεχνολογίες Web 2.0
- Ανάδειξη της ανάγκης ολοκληρωμένων λύσεων

Περιεχόμενα ενότητας

- Web 2.0
- Συνεργασία στην εποχή του Web 2.0
- Υπολογιστική Νέφος
- Τεχνολογίες Web 2.0
- Ολοκλήρωση υπηρεσιών και δεδομένων

Web 2.0 - Ορισμοί

An umbrella term for the **second wave of the World Wide Web**, which was coined in a conference on the subject in 2004 by O'Reilly Media and CMP Media. Web 2.0 is not a specific technology; rather, it refers to two major paradigm shifts. The one most often touted is "**user-generated content**", which relates more to individuals. The second, which is equally significant, but more related to business, is "**cloud computing**".

Πηγή: <http://www.pcmag.com/encyclopedia>

The internet viewed as a medium in which **interactive experience**, in the form of blogs, wikis, forums, etc. plays a more important role than simply accessing information.

Πηγή: Collins English Dictionary

A second generation in the development of the World Wide Web, conceived as a combination of concepts, trends and technologies that focus on **user collaboration, sharing of user-generated content, and social networking**.

Πηγή: dictionary.com

A Web 2.0 site may allow users to interact and collaborate with each other in a social media dialogue as **creators of user-generated content in a virtual community**, in contrast to Web sites where people are limited to the passive viewing of content.

Πηγή: wikipedia.org

Web 1.0

Read
Retrieve

Web 2.0

Create
Collaborate

DECEMBER 25, 2006 / JANUARY 1, 2007

www.time.com

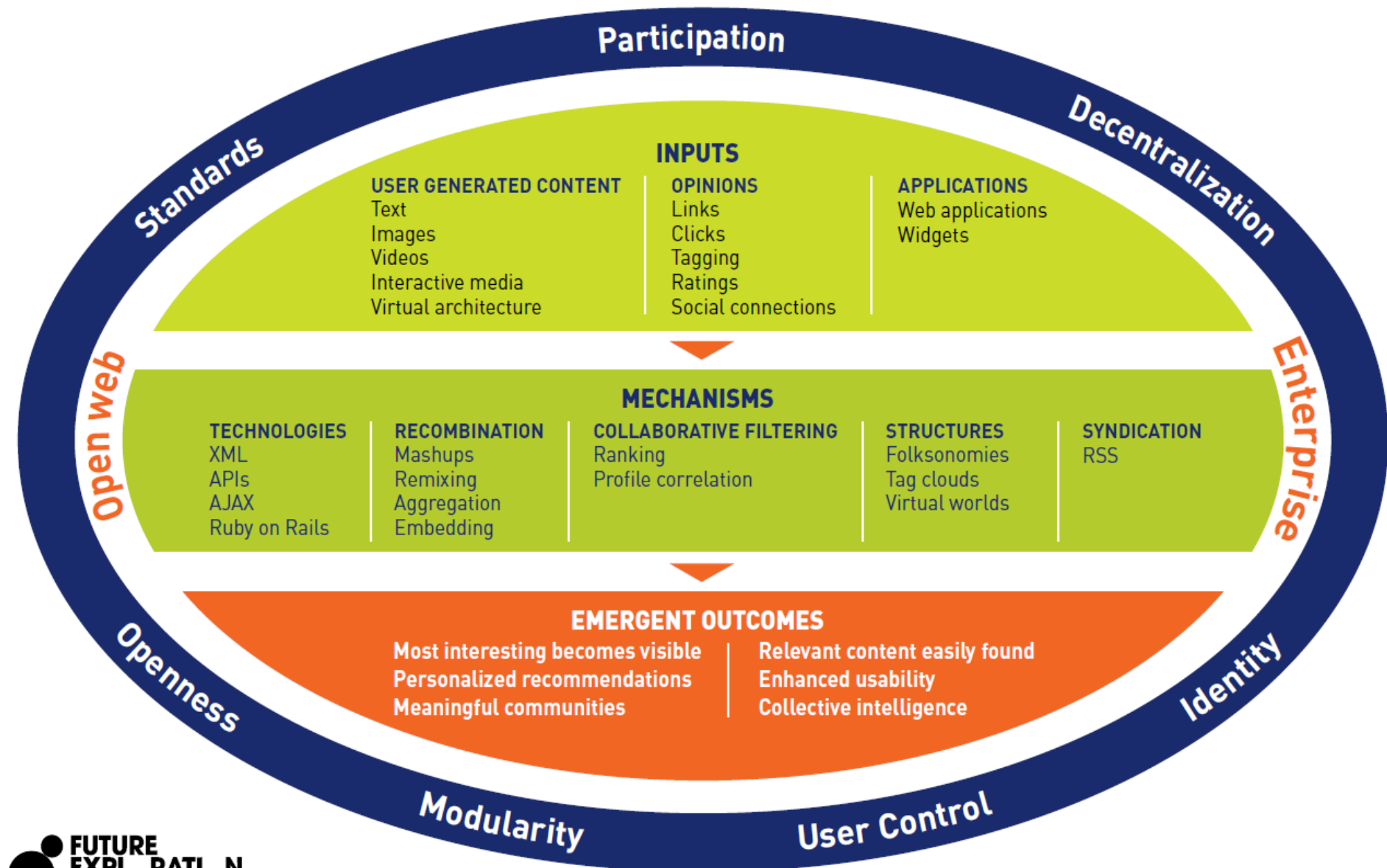
TIME

PERSON OF THE YEAR



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

WEB 2.0 Framework



Χαρακτηριστικά Web 2.0

- Participation
 - Every aspect of Web 2.0 is driven by participation. The transition to Web 2.0 was enabled by the emergence of platforms such as blogging, social networks, and free image and video uploading, that collectively allowed **extremely easy content creation and sharing by anyone**.
- Standards
 - Standards provide an essential platform for Web 2.0. **Common interfaces for accessing content and applications** are the glue that allow integration across the many elements of the emergent web.
- Decentralization
 - Web 2.0 is decentralized in its architecture, participation, and usage. **Power and flexibility** emerges from distributing applications and content over many computers and systems, rather than maintaining them on centralized systems.

Χαρακτηριστικά Web 2.0 (συν.)

- Openness
 - The world of Web 2.0 has only become possible through a spirit of openness whereby developers and companies provide **open, transparent access to their applications and content**.
- Modularity
 - Web 2.0 is the antithesis of the monolithic. It emerges from many, many components or modules that are designed to link and integrate with others, **together building a whole that is greater than the sum of its parts**.
- User Control
 - A primary direction of Web 2.0 is for users to **control the content they create, the data captured about their web activities, and their identity**. This powerful trend is driven by the clear desires of participants.
- Identity
 - Identity is a critical element of both Web 2.0 and the future direction of the internet. We can increasingly choose to **represent our identities however we please, across interactions, virtual worlds, and social networks**.

Συζήτηση

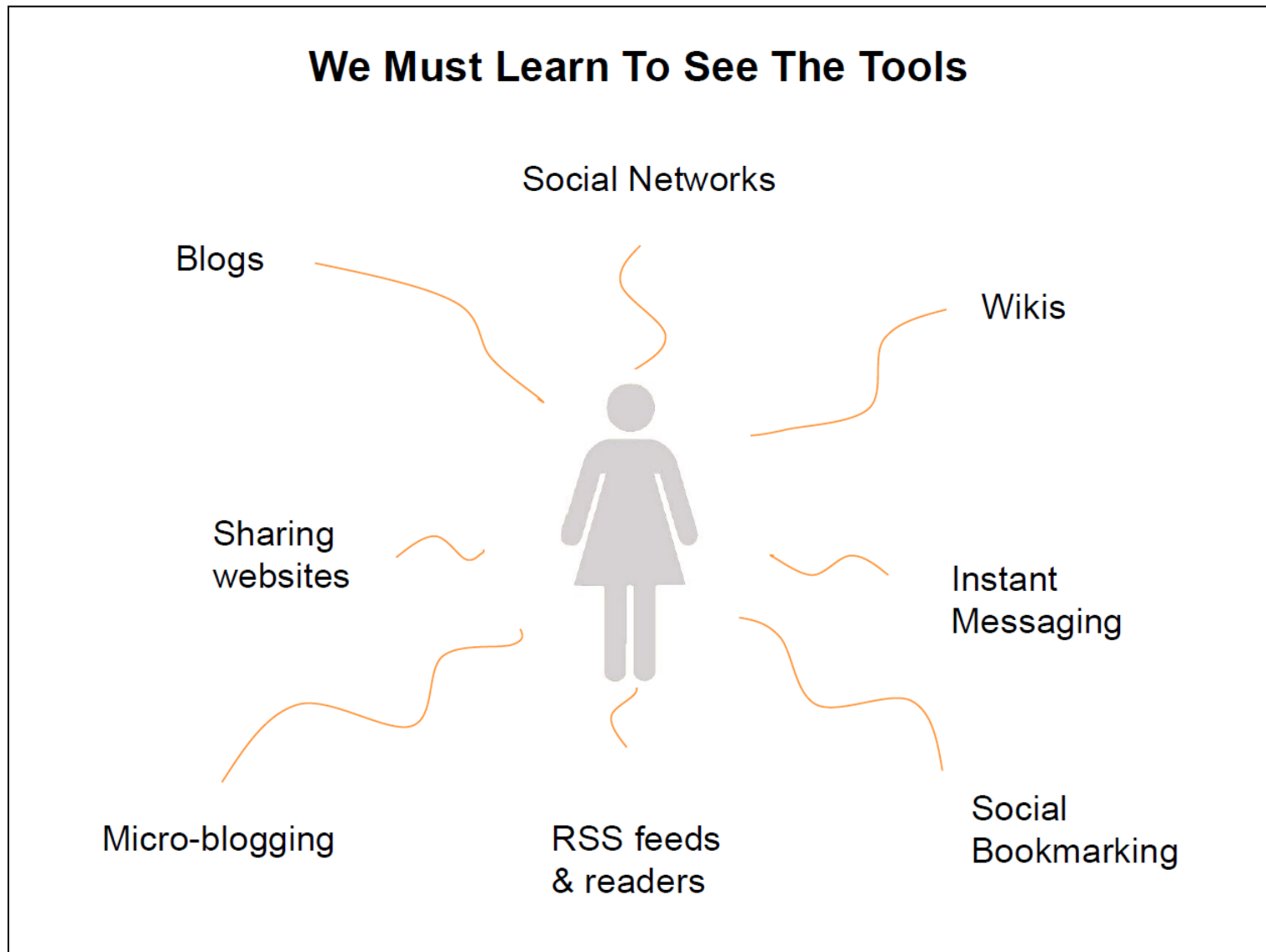
Πως μπορεί ένας οργανισμός να βελτιώσει τις συνεργατικές του διαδικασίες με Web 2.0 εργαλεία?

Εργαλεία Web 2.0

We Must Learn To Look Beyond Obvious



Εργαλεία Web 2.0 (συν.)



Εργαλεία Web 2.0 (συν.)

We Must See The Needs They Adress

Share information and experiences with others

Find and connect with other people

Contribute to and use collective intelligence

Share photos with others

Communicate spontaneously and direct with others

Communicate quick and informally with others

Consume relevant information from sources you trust

Share any Information you find with others



Κουλτούρα συνεργασίας

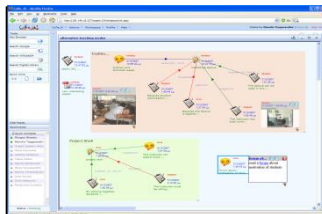
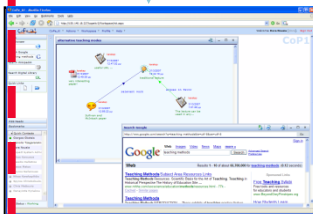
A photograph of three students in a classroom setting. Two students in the foreground, one in an orange shirt and one in a light green shirt, are leaning over a desk, looking at a notebook. A third student in a white shirt is visible in the background, also at a desk. The scene illustrates a collaborative learning environment.

command / control → consensus-driven

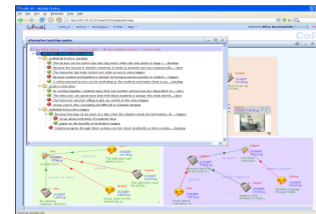
structure-based → knowledge-based

formal → informal

Χώροι συνεργασίας



...



Informal



Formal



collection & sharing of collaboration items

interrelation & evolution of collaboration items

informal / semiformal aggregation of collaboration items

formal exploitation of collaboration items patterns

exploitation of legacy resources

informal / semiformal argumentation

semantic annotation of collaboration items

formal argumentation and reasoning mechanisms

formality

Menu

O'REILLY

Radars

INSIGHT, ANALYSIS, AND RESEARCH
ABOUT EMERGING TECHNOLOGIES



Search

Web 2.0

More Topics



Google Admits "Data is the Intel Inside"

by Tim O'Reilly | @timoreilly | +Tim O'Reilly | December 17, 2007



That least-understood principle from my original [Web 2.0 manifesto](#), "Data is the Intel Inside," is finally coming out of the closet. A post on the Google Operating System Blog entitled [Google is Really About Large Amounts of Data](#) notes that in an interview at the [Web 2.0 Summit](#) in October, Marissa Mayer, Google's VP of Search Products and User Experience, "confessed that having access to large amounts of data is in many instances more important than creating great algorithms."

Right now Google is really good with keywords, and that's a limitation we think the search engine

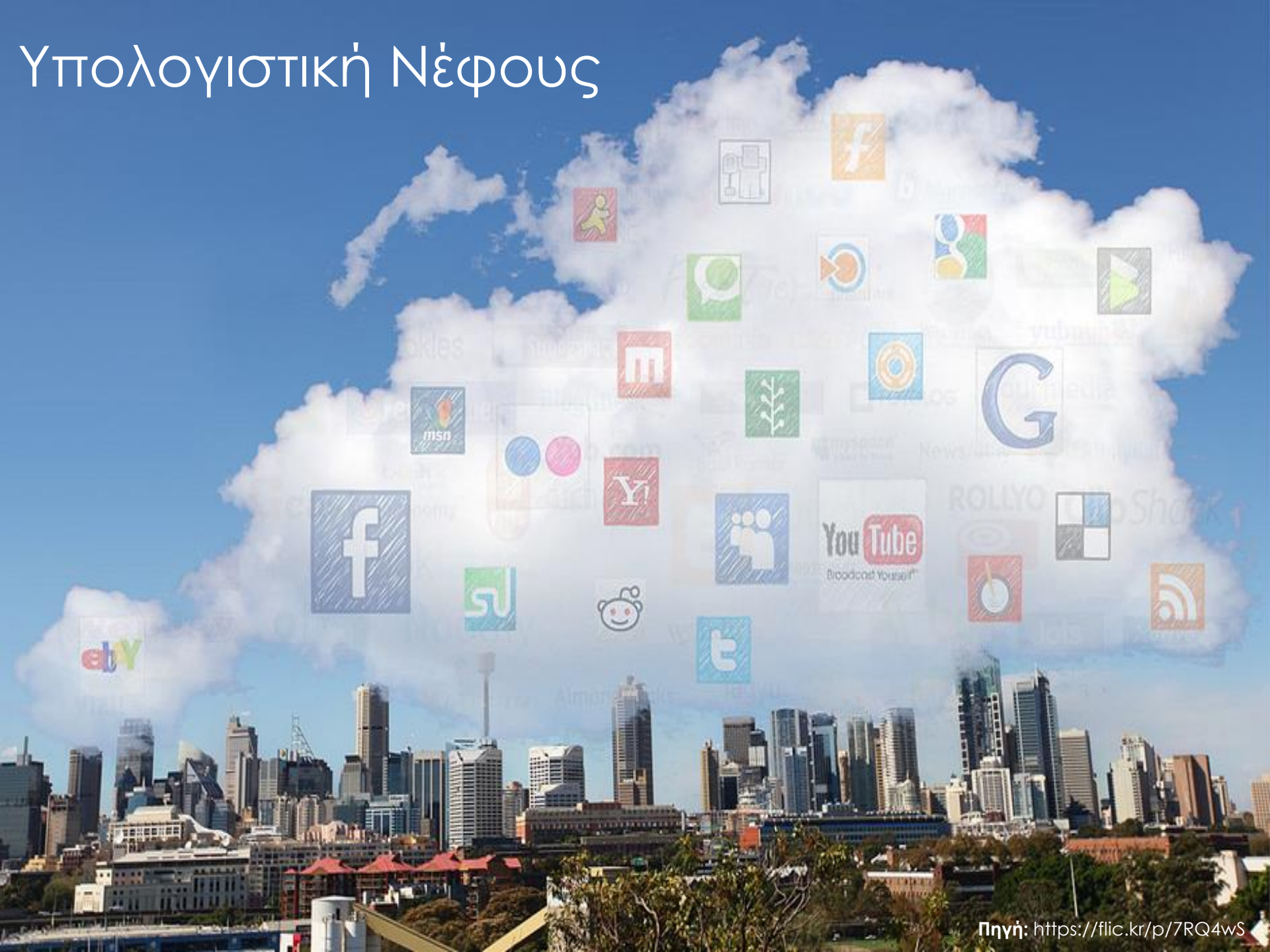
Data is the Next Intel Inside (data is the intelligence)

"Applications are increasingly data-driven. Therefore: For competitive advantage, seek to own a unique, hard-to-recreate source of data."

"The value of the software is proportional to the scale and dynamism of the data it helps to manage."

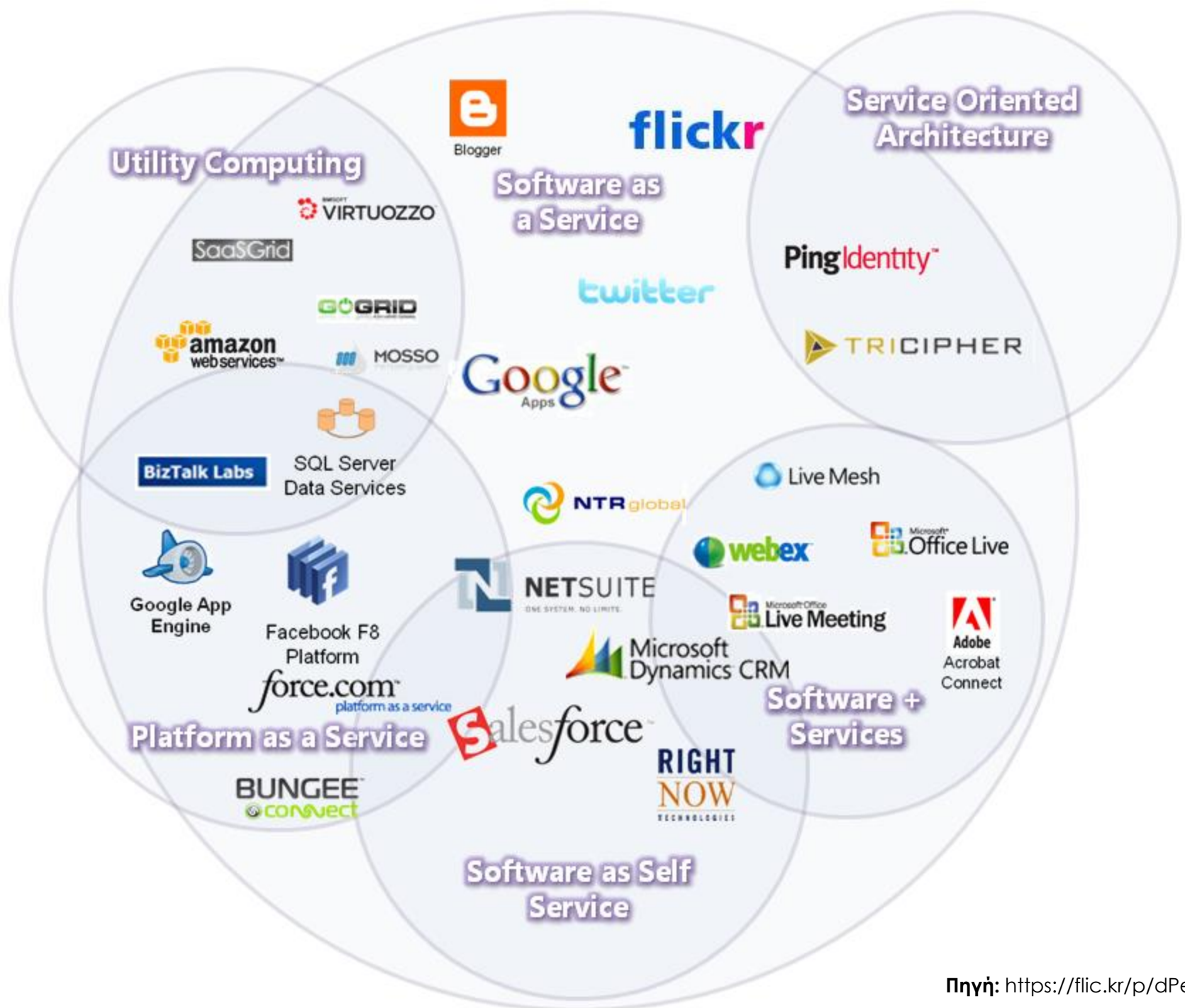
Πηγή:
<http://www.oreilly.com/pub/a/w eb2/archive/what-is-web-20.html>

Υπολογιστική Νέφος



Υπολογιστική Νέφους (συν.)

- Τρέχει σε απομακρυσμένες εγκαταστάσεις
 - Πρόσβαση μέσω του Διαδικτύου ή και ενός VPN (virtual private network)
 - Οι εφαρμογές συντηρούνται από τον πάροχο των υπηρεσιών
- Οι υπηρεσίες ενοικιάζονται ή αγοράζονται άδειες χρήσης τους
- Μοντέλα Υπηρεσιών
 - Software-as-a-Service (games, email, ...)
 - Platform-as-a-Service (web server, development tools, ...)
 - Infrastructure-as-a-Service (virtual machines, servers, storage, virtual local area networks, ...)



Υπολογιστική Νέφους (συν.)

- Λόγοι επιλογής
 - Απελευθερώνει εσωτερικό προσωπικό
 - Γρηγορότερη πρόσβαση σε εφαρμογές (σε σχέση με εσωτερική ανάπτυξη)
 - Πρόσβαση με συνήθως πολύ μικρότερο κόστος
 - Συχνότητα χρήσης των σχετικών υπηρεσιών
- Μεγάλη αποδοχή
 - Το 2011, η Microsoft δαπάνησε το 90% του \$9.6bn R&D budget της στο Cloud (<http://cloudtimes.org/2011/04/12/microsoft-says-to-spend-90-of-rd-on-cloud-strategy/>)
- Θέματα προς θεώρηση
 - Αξιοπιστία
 - Ασφάλεια
 - Συμμόρφωση με κυβερνητικούς κανονισμούς και οδηγίες

Τεχνολογίες Web 2.0

- Aggregation
 - Bringing multiple content sources together into one interface or application.
- AJAX (Asynchronous Javascript and XML)
 - A combination of technologies (used on the client-side) that enables highly interactive web applications.
- API (Application Programming Interface)
 - A defined interface to a computer application or database that allows access by other applications.
- Embedding
 - Integrating content or an application into a web page, while the original format is maintained.
- Folksonomy
 - Rich categorization of information that is collectively created by users, through tagging and other actions. (cf. taxonomy)

Τεχνολογίες Web 2.0 (συν.)

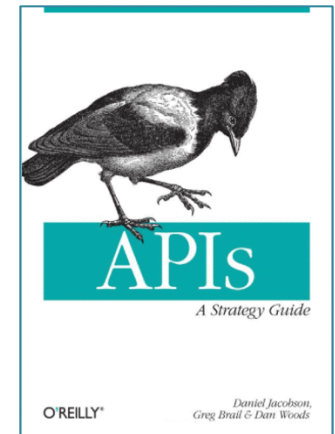
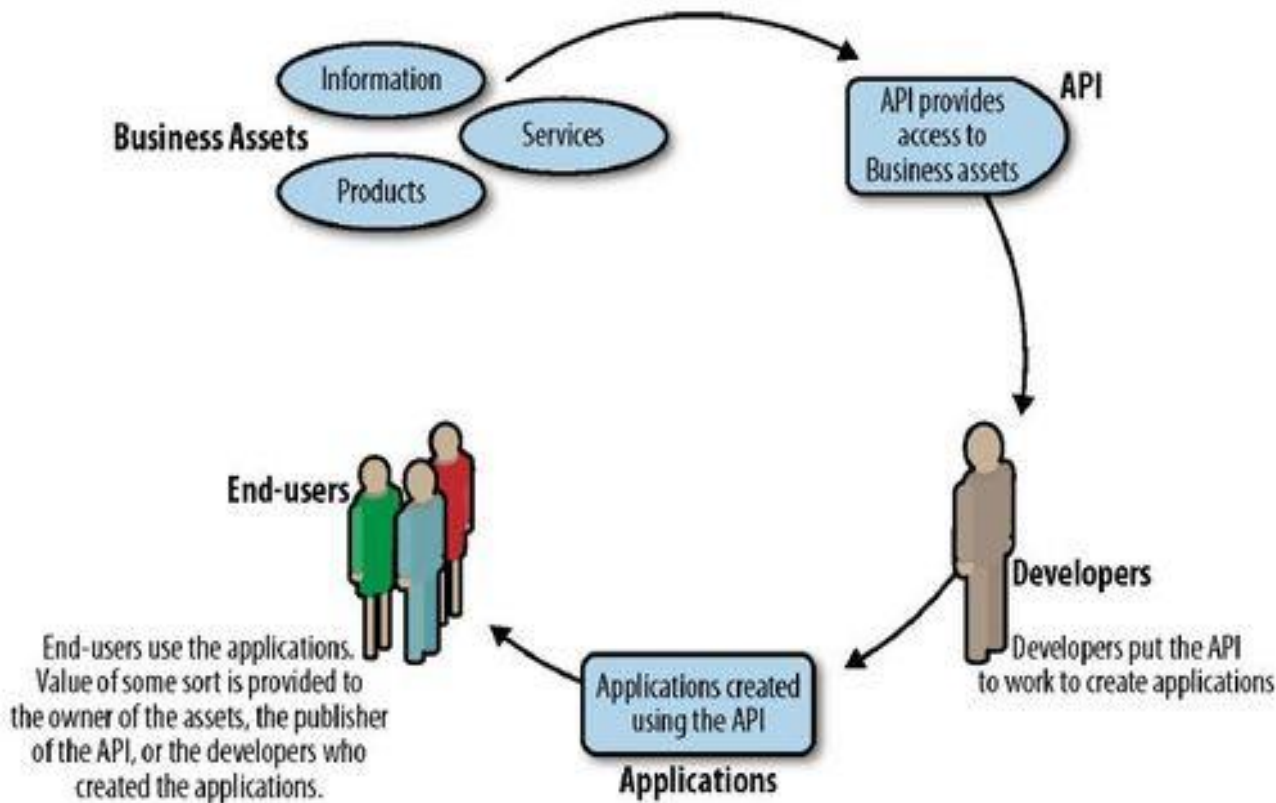
- Mashups
 - Combination of different types of content or data, usually from different sources, to create something new.
- Remixing
 - Extracting and combining samples of content to create a new output. The term was originally used in music but is now also applied to video and other content.
- RSS (Really Simple Syndication)
 - A group of formats to publish (syndicate) content on the internet so that users or applications automatically receive any updates.
- Ruby on Rails
 - An open source web application framework that is frequently used in Web 2.0 website development.
- Tag cloud
 - A visual depiction of tags that have been used to describe a piece of content, with higher frequency tags emphasized to assist content comprehension and navigation.

Τεχνολογίες Web 2.0 (συν.)

- Tagging
 - Attaching descriptions to information or content.
- Virtual architecture
 - The creation of avatars (alternative representations of people), buildings, objects, and other artefacts inside virtual spaces.
- Widget
 - Small, portable web application that can be embedded into any web page.
- XML (eXtensible Markup Language)
 - An open standard for describing data, which enables easy exchange of information between applications and organizations.

APIs

- A set of HTTP request messages, along with a definition of the structure of response messages



Πηγή:

O'REILLY

Daniel Jacobson,
Greg Brail & Dan Woods

APIs (συν.)

API Billionaires Club

 twitter

13 billion API calls / day *(May 2011)*

 Google

5 billion API calls / day *(April 2010)*

 facebook

5 billion API calls / day *(October 2009)*

 NETFLIX

1.4 billion API calls / day *(May 2012)*

 ACCU WEATHER

1.1 billion API calls / day *(April 2011)*

 KLOUT

1 billion API calls / day *(May 2012)*

 eBay

1 billion API calls / day *(Q1 2012)*

 Sabre

1 billion API calls / day *(January 2012)*

Πηγή: <http://www.networkworld.com/article/2224364/opensource-subnet/when-industry-jargon-and-buzzwords-backfire.html>

Browse the world's largest API repository → <http://www.programmableweb.com/category/all/apis>

SOAP / REST

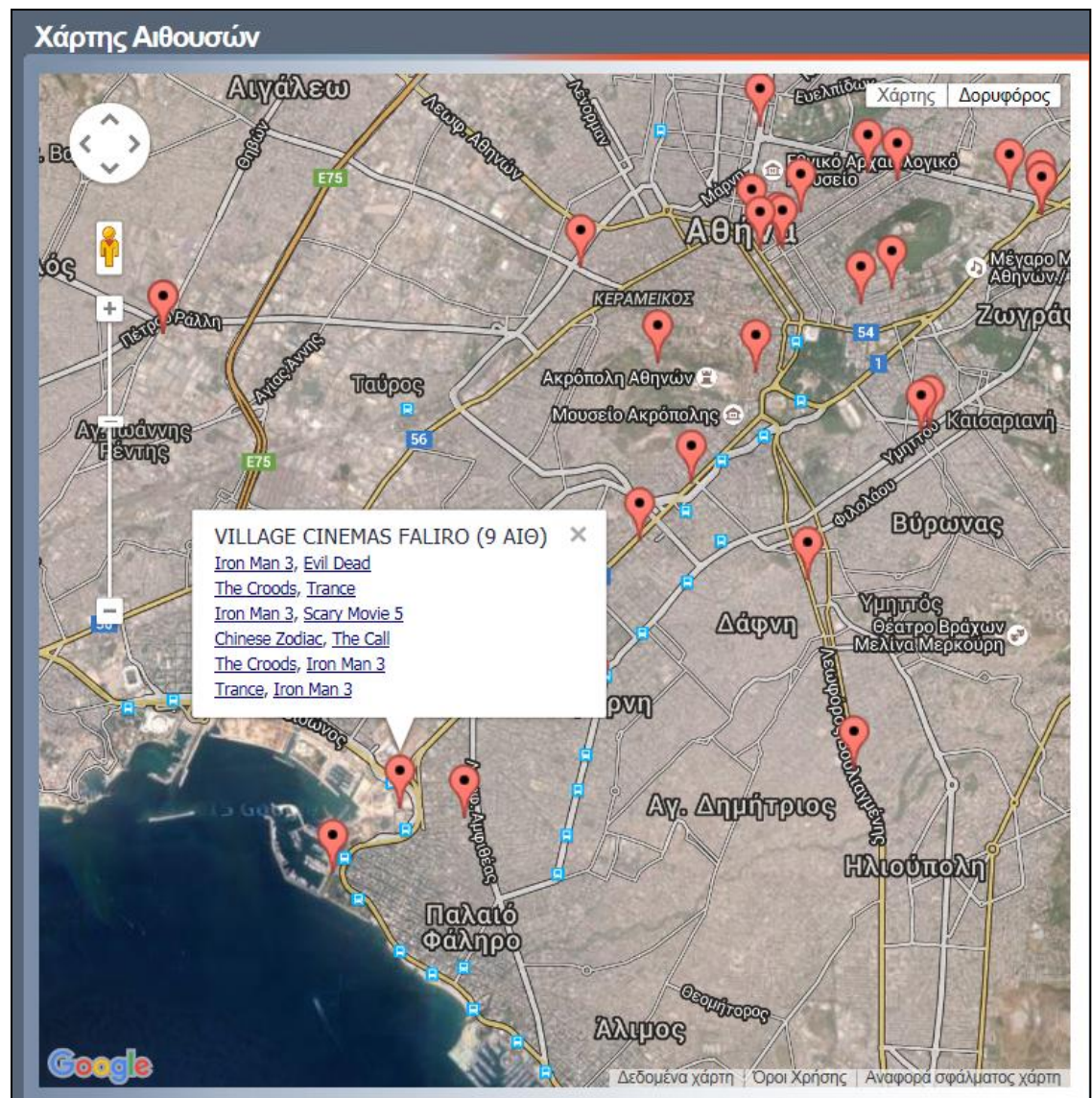
- Web services
 - A software system designed to support interoperable machine-to-machine interaction over a network [W3C, <http://www.w3.org/>]
- SOAP (Simple Object Access Protocol)
- REST (Representational State Transfer)



Πηγή: nordicapis.com/rest-vs-soap-nordic-apis-infographic-comparison

Mashups

- Combination of different types of content, usually from different sources, to create a single new service
- Main characteristics
 - combination
 - visualization
 - aggregation



Widgets

- Small application (with limited functionality) that can be embedded into (and executed within) a web page
- typically created in DHTML or Adobe Flash



The Dicode project (<http://dicode-project.eu/>)

The screenshot displays the Dicode project web interface, which is a collaborative workspace for medical research. The main area is titled "Collaborative Workspace" and is currently in "Mind-map view" for the topic "Prostate cancer: Alternative treatment".

Storage Service: Shows "Users files" and options for "Upload", "Config.", and "About".

Locations: Displays "Locations of Twitter users" for the date 2012-10-28, with a map showing a green highlighted region.

Forum Summariz: Includes a "Main Menu" and "All Questions" section, along with a "Cross Validated Statistics Forum - Topic Clouds" link.

Collaborative Workspace: The central area is divided into three panels:

- Relevant resources:** Lists two PDF documents: "RadicalProstatectomy. Survey" (Urologist, 23 Oct 2012) and "RandomizedTrialsForActiveSu..." (Physician, 23 Oct 2012).
- Active Surveillance:** A mind map showing a central node "Active Surveillance" (Urologist, 23 Oct 2012) connected to "Requires close monitoring" (Jane Monro, 23 Oct 2012), which is further connected to "Physician 23 Oct 2012" (noting "Avoids radiation side effec...") and "Physician 23 Oct 2012" (noting "Many/most patients are unre...").
- Radical Prostatectomy:** A mind map with a central node "Radical prostatectomy" (Physician, 23 Oct 2012) connected to "Erectile dysfunction" (Jane Monro, 23 Oct 2012), "Proven solution" (Urologist, 23 Oct 2012), "Accurate staging" (Urologist, 23 Oct 2012), and "PSA levels predict recurren..." (Urologist, 23 Oct 2012).
- Brachytherapy:** A mind map with a central node "Brachytherapy for prostate ..." (Jane Monro, 23 Oct 2012) connected to "No post-treatment" (Urologist, 23 Oct 2012) and "Urologist 23 Oct 2012" (noting "Many/most patients are unre...").

Pubmed: A search interface with a "Search" button and a "Search term" input field. It includes a welcome message: "Welcome to PubMed Mobile. PubMed comprises more than 21 million citations for biomedical literature from".

Doc. Viewer: A placeholder for a document viewer with the instruction: "Drag the document you want to view here or [Open Document](#)".

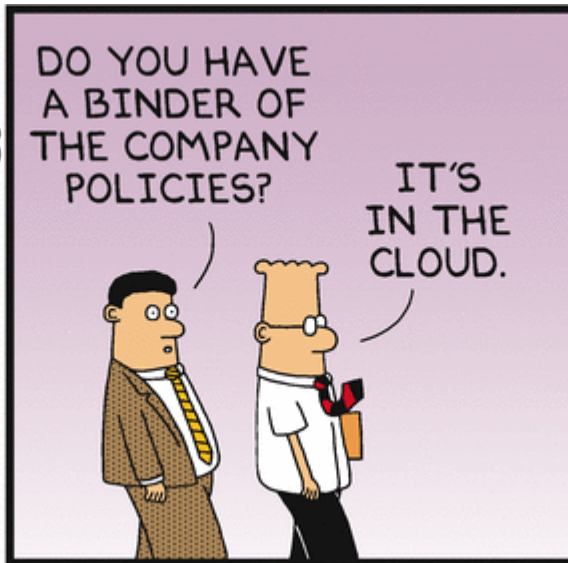
Entity Prominence: A "Prominence Graph" interface with an "Entity" search field and a list of entities in a graph: "Mercedes-Benz", "Audi", and "BMW".

Footer: Copyright © 2010 Dicode project * About DICODE * Contact

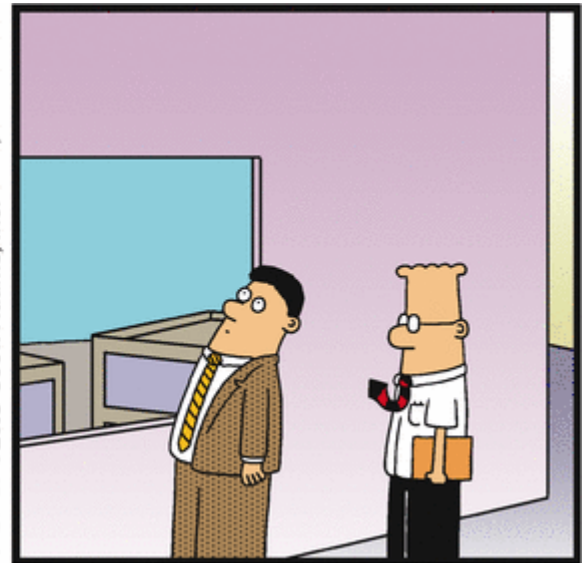
Αντί επιλόγου



Dilbert.com DilbertCartoonist@gmail.com



6-29-13 ©2013 Scott Adams, Inc./Dist. by Universal Uclick



Βιβλιογραφία

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