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 Νέφους
• 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

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

Πηγή: http://rossdawson.com/frameworks/web-2-0/
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.

Πηγή: http://rossdawson.com/frameworks/web-2-0/
Συζήτηση

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

Πηγή: http://www.flickr.com/photos/43343237@N04/5593973222/
Εργαλεία Web 2.0

We Must Learn To Look Beyond Obvious

We Must Learn To See The Tools

- Social Networks
- Blogs
- Wikis
- Instant Messaging
- Sharing websites
- Micro-blogging
- RSS feeds & readers
- Social Bookmarking

We Must See The Needs They Address

Find and connect with other people

Contribute to and use collective intelligence

Communicate spontaneously and direct with others

Consume relevant information from sources you trust

Share any information you find with others

Communicate quick and informally with others

Share photos with others

Share information and experiences with others

Κουλτούρα συνεργασίας

command / control ➔ consensus-driven
structure-based ➔ knowledge-based
formal ➔ informal

Πηγή: https://flic.kr/p/aPWeJ/
Χώροι συνεργασίας

collaboration space

Informal

- collection & sharing of collaboration items
- exploitation of legacy resources
- interrelation & evolution of collaboration items
- informal / semiformal argumentation

Formal

- formal exploitation of collaboration items patterns
- formal argumentation and reasoning mechanisms
- semantic annotation of collaboration items
- informal / semiformal aggregation of collaboration items
- formal exploitation of collaboration items patterns

formality
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.”


Υπολογιστική Νέφους
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, …)
Utility Computing
- Virtuozzo
- SaaSGrid
- Amazon Web Services
- GoGRID
- SQL Server Data Services

Software as a Service
- Blogger
- Flickr
- Twitter
- Google Apps
- Force.com
- Salesforce

Platform as a Service
- BizTalk Labs
- Google App Engine
- Facebook F8 Platform

Platform as a Self Service
- Bungee Connect

Service Oriented Architecture
- Ping Identity
- NTR Global
- Live Mesh
- Webex
- Microsoft Office Live

Software + Services
- Microsoft Dynamics CRM
- RightNow Technologies
- Adobe Acrobat Connect

Πηγή: https://flic.kr/p/dPeZ9w
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

• 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)

Πηγή: http://rossdawson.com/frameworks/web-2-0/
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.

Πηγή: http://rossdawson.com/frameworks/web-2-0/
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
APIs (συν.)


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)**

### COMMON USE CASES

**REST**
- Social Media services
- Social Networks
- Web Chat services
- Mobile Services

**SOAP**
- Financial services
- Payment gateways
- Telecommunication services

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

Πηγή: http://www.cinemanews.gr/gmap/
Widgets

- Small application (with limited functionality) that can be embedded into (and executed within) a web page

- typically created in DHTML or Adobe Flash

Πηγή: https://flic.kr/p/dxyZf
The Dicode project (http://dicode-project.eu/)
Αντί επιλόγου

ALAN HAS BEEN OUT OF THE WORKFORCE FOR A LONG TIME. I NEED YOU TO EASE HIM BACK IN.

DO YOU HAVE A BINDER OF THE COMPANY POLICIES?

IT'S IN THE CLOUD.
• G. Cormode and B. Krishnamurthy, “Key differences between Web 1.0 and Web 2.0”, First Monday, 13(6), 2008 → http://dx.doi.org/10.5210/fm.v13i6.2125


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