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## Design of learning activities based on Web 2.0 tools



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# Social software in education /1

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- ◆ Social software can be used for self-publishing, management of online media collections, collaboration, electronic portfolios etc.
  - Wikis, weblogs, social bookmarking
  - Innovation in education
  - Instructional design (learning activities)
  - Personalized learning environments
  - Collaboration, peer-to-peer learning, socializing
  - More cognitive, social and teaching presence of the learners



# Social software in education /2

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- ◆ Frequently used social software tools for online education (Mejias, 2006):
  - Blogs (personal web publishing)
  - Wikis (collaborative content management systems)
  - Distributed classification systems (classification of items by associating them with keywords/tags)
  - Rich site summary (RSS) feeds (subscription system that alerts the user when new content is available on a web publishing resource)

Mejias, U. (2006). Teaching Social Software with Social Software. *Innovate: Journal of Online Education*, 2(5)



# Web 2.0

- ◆ Web 2.0 is a broad and evolving term describing new trends in using the web, with an emphasis on interconnectivity, interactivity, and user-produced content
- ◆ **Software [as a] Service**
  - Online word processors (<http://www.writely.com>)
- ◆ **Use of Collective Intelligence**
  - Amazon (other shoppers activity patterns are used to advertise things you might like)
  - Wikipedia, Edupedia
  - Google search ranks based on how many other sites link to that page
  - Social bookmarking (<http://del.icio.us>) – shared, tagged bookmarks
- ◆ **Everyone as Publisher ("Read-Write Web")**
  - Blogs, wikis, Flickr (photos), eVite (invitations), Podcasts
- ◆ **Aggregation & Tagging (solves the problem of information overload)**
  - RSS aggregators, [del.icio.us](http://del.icio.us)

See: Karr, T. (2006). *What is eLearning 2.0? : eLearning Technology*, Tony Karrer's eLearning Blog on e-Learning Trends

# E-learning 2.0

- Various innovative approaches related to the use of Web 2.0 tools for online learning

	E-learning 1.0	E-learning 2.0
Components	Courseware, LMSs	Wikis, blogs
Ownership & information flow	Predominantly top-down	Bottom-up, collaboration, learner-driven, peer learning
Development time	Long	Rapid/none
Content size	~ 60 minutes	1-15 minutes
Delivery	According to schedule	When you need it
Content access	LMS	Search, RSS feed
Content creator	Lesson author	User(s)

Karrer, T. (). Understanding E-Learning 2.0. *Learning Circuits*.



# Web 2.0 tools /1

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- ◆ Diverse tools for online publishing, content creation and cooperation
  - Photo management and sharing: Flickr, Zoto
  - Social bookmarking: del.icio.us, Ma.gnolia
  - Audio/video sharing: Odeo, YouTube, Google Video
  - Communication: MySpace, Facebook, YackPack & Chingswing (audioconferencing), Yaplet (chatroom on webpage)
  - Brainstorming and collaboration: Bubble.us (mental maps), Thinkature & Imagination Cubed (interactive whiteboard), NoteMesh (note exchange), FunAdvice (questions and advice)
  - Creative learning: JotForm (online form design), LettrPop (newsletters, invitations), Bubblr (comic strips), Mojiti (video editing), SlideStory (PPT+voice)

Orehovački, T., Konecki, M., Radošević, D. (2007). Alati za e-obrazovanje 2.0. *CARNet Users Conference - CUC 2007*.

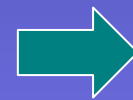
# Online learning activities /1

## ➤ Pedagogical activities for online learning

(E)LEARNING  
STRATEGIES



Learning  
technologies



**E-TIVITIES**

- Audio & video recordings
- E-mail
- LMS
- Weblog
- Wiki
- Web site

“... educational activities designed by e-moderators which include individual contributions and responding to the contributions of other learners in various CMC environments.”

(Salmon,2002)

Kovačić, A., Bubaš, G., Zlatović, M., Balaban, I. (2008). Designing e-learning activities with a wiki for students of English as a foreign language. *"New Learning Cultures", Electronic Proceedings of the EDEN 2008 Annual Conference*, Lisbon, Portugal.

# Online learning activities /1

## Examples of e-tivities and suitable Web 2.0 tools

- **Learner Pre-Questions** - Collaboration: [FunAdvice](#) (questions and advice)
- **Cite model / Interviewing** - Audio/video sharing: [Odeo](#), [YouTube](#), [Google Video](#)
- **Anecdote** - Creative learning: [Bubblr](#) (comic strips), [Mojiti](#) (video editing)
- **Identify a problem** - Communication: [Yaplet](#) (chatroom on webpage)
- **Examples/Non-examples** - Video sharing: [YouTube](#), [Google Video](#)
- **Group/individual inquiry** - Social bookmarking: [del.icio.us](#), [Ma.gnolia](#)
- **Project** - Creative learning: [JotForm](#) (online form design), [SlideStory](#) (PPT+voice)
- **Group/individual feedback** - Communication: [MySpace](#)
- **Graphic organizers** - Brainstorming and collaboration: [Bubble.us](#) (mental maps), [Thinkature & Imagination Cubed](#) (interactive whiteboard)
- **"For" and "against" dialogues** - Communication: [YackPack & Chingswing](#) (audioconferencing), [Yaplet](#) (chatroom on webpage)
- **Reflection** - Creative learning: [LettrPop](#) (newsletters), [SlideStory](#) (PPT+voice)
- **Questions for assessment** - Creative learning: [JotForm](#) (online form design)



# A case of blended learning /1

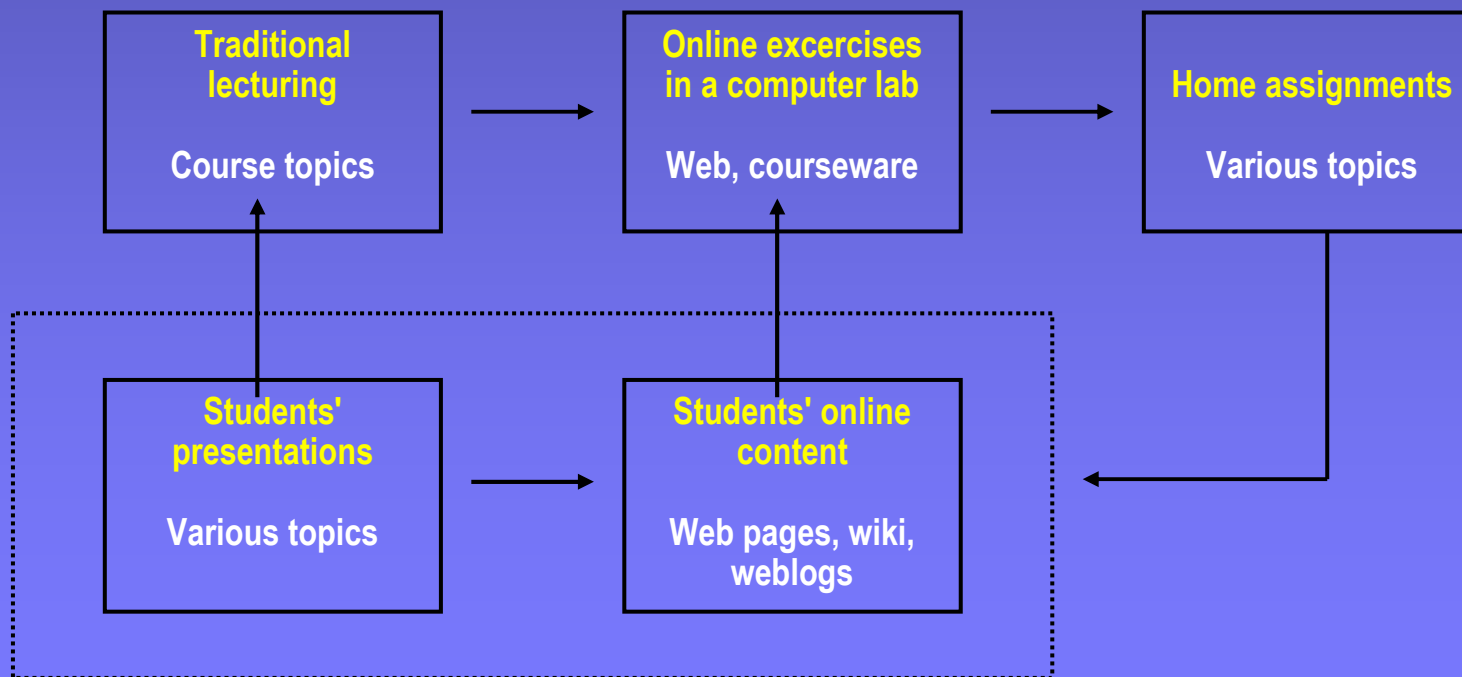
## The blended learning environment



Bubaš, G., Kermek, D. (2007). Courseware tools and social software in a hybrid university course: A case study with an evaluation of the online components. *Proceedings of the International Technology, Education and Development Conference - INTED2007*, Valencia, Spain.

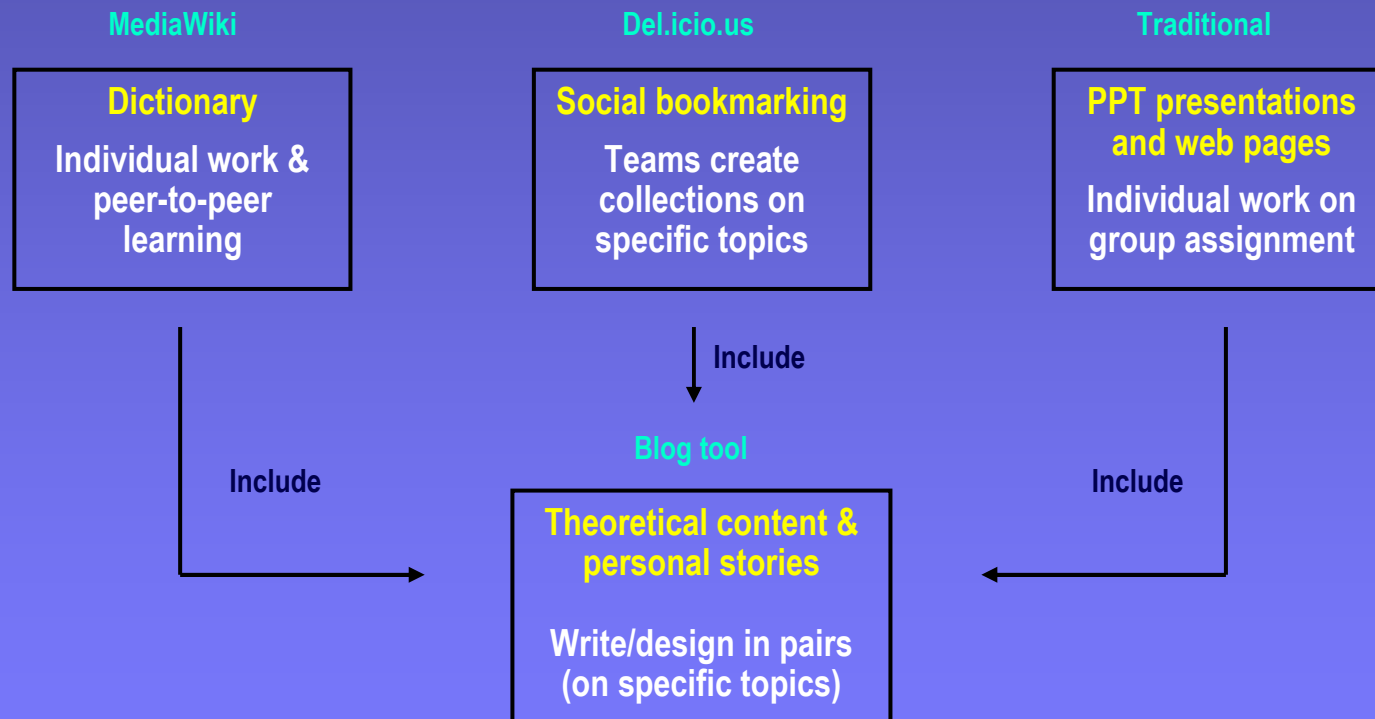
# A case of blended learning /2

## Common sequence of offline and online activities



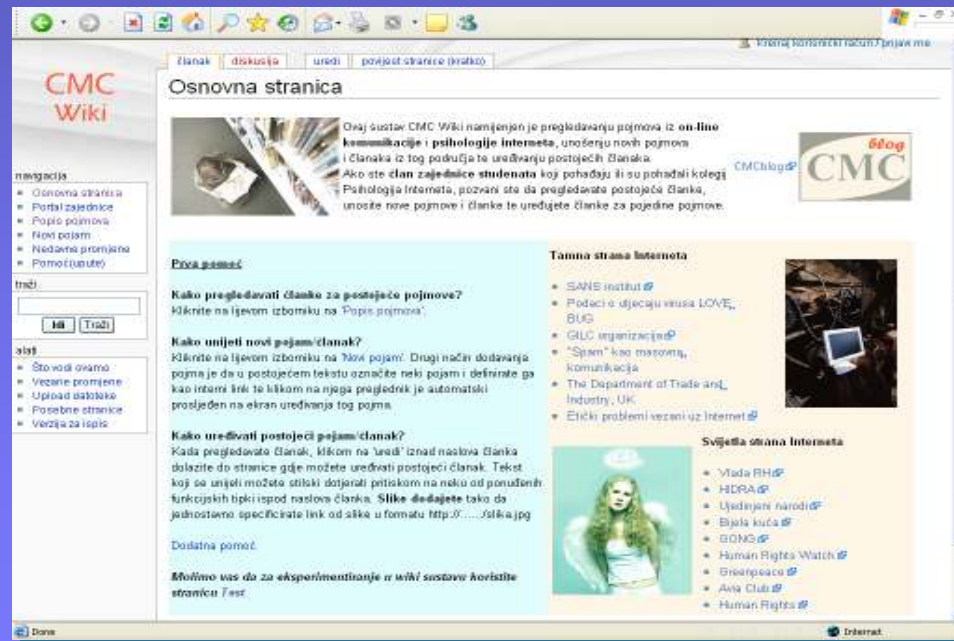
# A case of blended learning /3

## Use of Web 2.0 tools for online learning activities



# Wiki in a blended learning course /1

Students work individually to create their own dictionary of online communication and psychology of internet use – results of collective effort: descriptions of 240 terms in 4 weeks





# Wiki in a blended learning course /2

◆ Functions/results of e-tivities with a wiki system

Personal web publishing	Development of vocabulary and concepts	Peer-to-peer learning
Self-organizing activities	<b>WIKI</b>	Collaboration
Sense of responsibility	Orientation toward public interest	Empowerment

# Blog tool in a blended learning course /1

Students work in a team to create a blog with educational content and their experiences on a specific topic. They work on visual design and link external web pages of team members and terms in the wiki dictionary of the course.



The screenshot shows a web browser window displaying a blog post on the @CMC website. The browser's address bar shows the URL <http://www.cmc.hr>. The page title is "@CMC". The blog post is titled "Virtualni identitet na Internetu" and is dated "May 23 (Tuesday) 2006". The author is "KOMPIJUTERSKI TRANSVESTIZAM" and the time is "09:55". The post content discusses virtual identity and includes a comment from "goran" dated "09:36". The comment asks "Was this article useful?" with "Yes" and "No" options and a "Send" button. The page also features a "User Menu" and a "Main Menu" on the left side.

**@CMC**

User Menu  
View Account  
Edit Account  
Notifications  
Logout  
Inbox

Main Menu  
Home  
Blog  
Write Blog  
Preference  
New Blog

Sort by Vote Ranking

2006 | 05

## Virtualni identitet na Internetu

May 23 (Tuesday) 2006

KOMPIJUTERSKI TRANSVESTIZAM 09:55 ddrivodnic.foi

KOMPIJUTERSKI TRANSVESTIZAM



Danas je jedan od najzanimljivijih aspekata virtualnog prostora "kompjuterski transvestizam". Julie (iz prethodnog primjera na našem blogu) je bila jedan od prvih primjera toga. Na mreži, gdje jamčenje i utemeljenja osobe u fizičkom tijelu nema smisla, muškarci rutinski poprimaju ženske ličnosti kad god počele, i obratno. To potpuno privlačenje drugogga potaknulo je novo načina interakcije. Etkiva, povjerljive i riski i dalje postoje, ali na drukčiji način. Spolom određeni načini komunikacije ostali su relativno stabilni, ali postalo je moguće mjenjati to što se služi kojim od dva društveno prihvatljiva načina. Ženu koja je prisvojila muški razgovorni stil može se sada i ovdje jednostavno smatrati muškarcem, tako da njezina/njegova ličnost na mreži poprima svojevrstan vlastit pseudo-svot, odvojen od uobičajenog života te osobe u "stvarnom" svijetu. Ponekad se mrežna ličnost neke osobe tako dobro razvije da počinje nadviđavati njezin život izvan mreže.

name: goran comment: [text input] Was this article useful?  Yes  No [Send]

PROBLEM IDENTITETA 09:36 ddrivodnic.foi



### PROBLEM IDENTITETA

Jedna od najjasnijih razlika između stvarne i virtualne zajednice je pojam identiteta. U stvarnoj zajednici identitet pojedinca je fiksan, stalni dok se u virtualnoj on neprestano dovodi u pitanje. Pošto je virtualna interakcija bazirana na komunikaciji, vrlo je bitna uloga identiteta onoga s kojim se razgovara za razumjevanje i razvijanje interakcije. Mnogi od osnovnih znakova o osobnosti i ulozi na koju smo navinuti u stvarnoj interakciji, ostaju u virtualnoj. Osoba u virtualnom svijetu može imati onoliko identiteta koliko želi, može ih neprestano mjenjati, odbacivati. Ti svi identiteti pokazuju želje "kad bih bio/bila" svakog pojedinca.

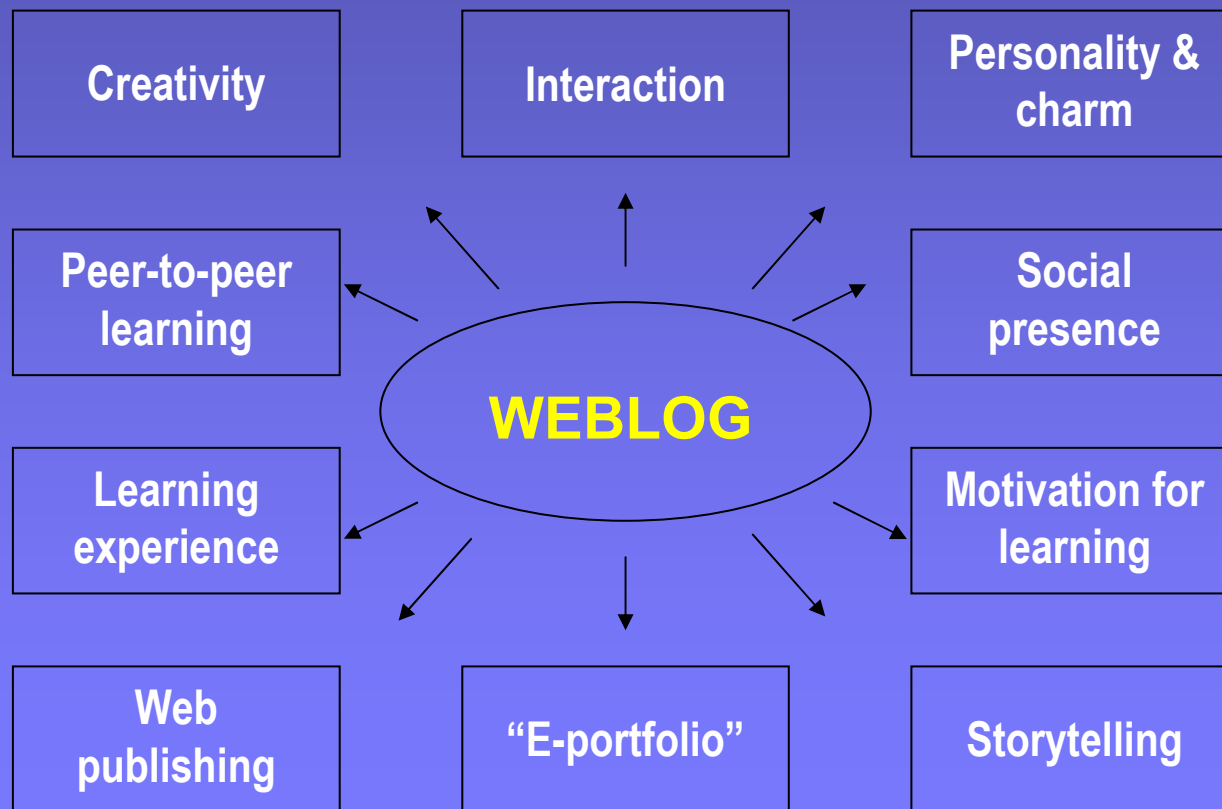
Taj virtualni identitet je često povezan s identitetom pojedinca u stvarnom svijetu. Onaj pojedinac koji trpi poniženja, nadmoć nekog iz svoje stvarne okoline, vjerojatno će u nekim od identiteta igrati ulogu onoga koji ima moć, vjerovati će i parčavati. Muškarci mogu postati žene, žene muškarci, djeca odrasli, odrasli mladi. Primatbrač sudionika virtualnih zajednica potrdjuju da dugotrajno ili intenzivno korišćenje računala je povezano s većom fluidnošću identiteta.

To dovodi do zaključka da se zapravo brojnim identitetima poriče stvarnost stvarnosti.

Done Internet

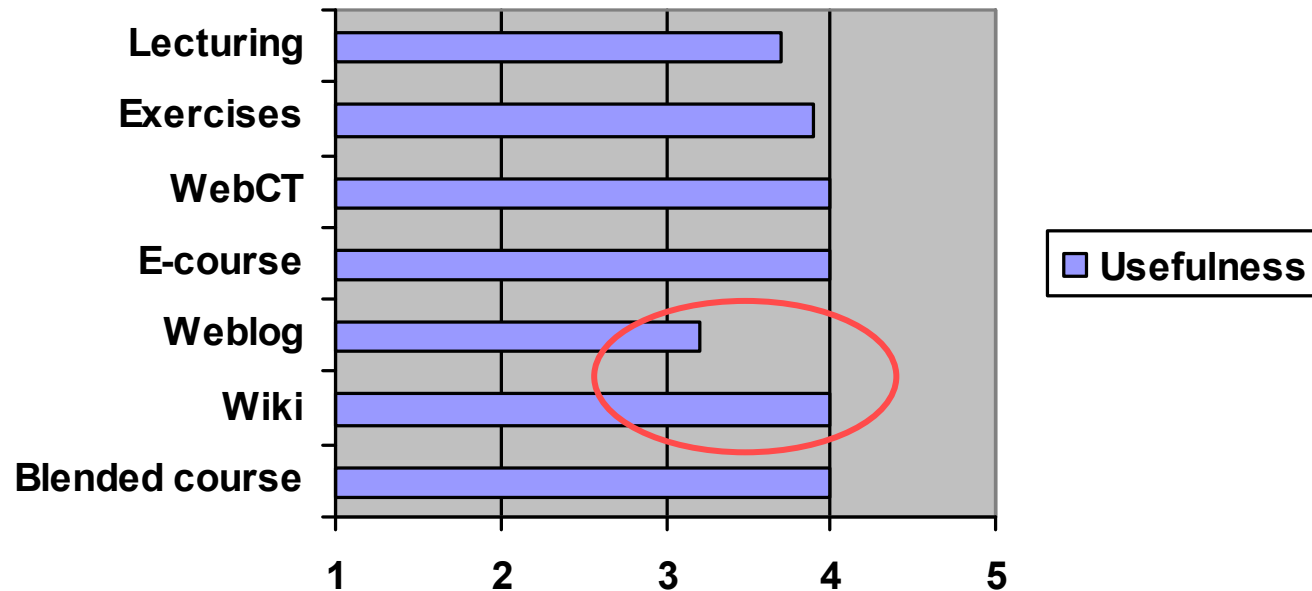
# Blog tool in a blended learning course /2

## ◆ Functions/results of e-tivities with a weblog



# Evaluation of online tools /1

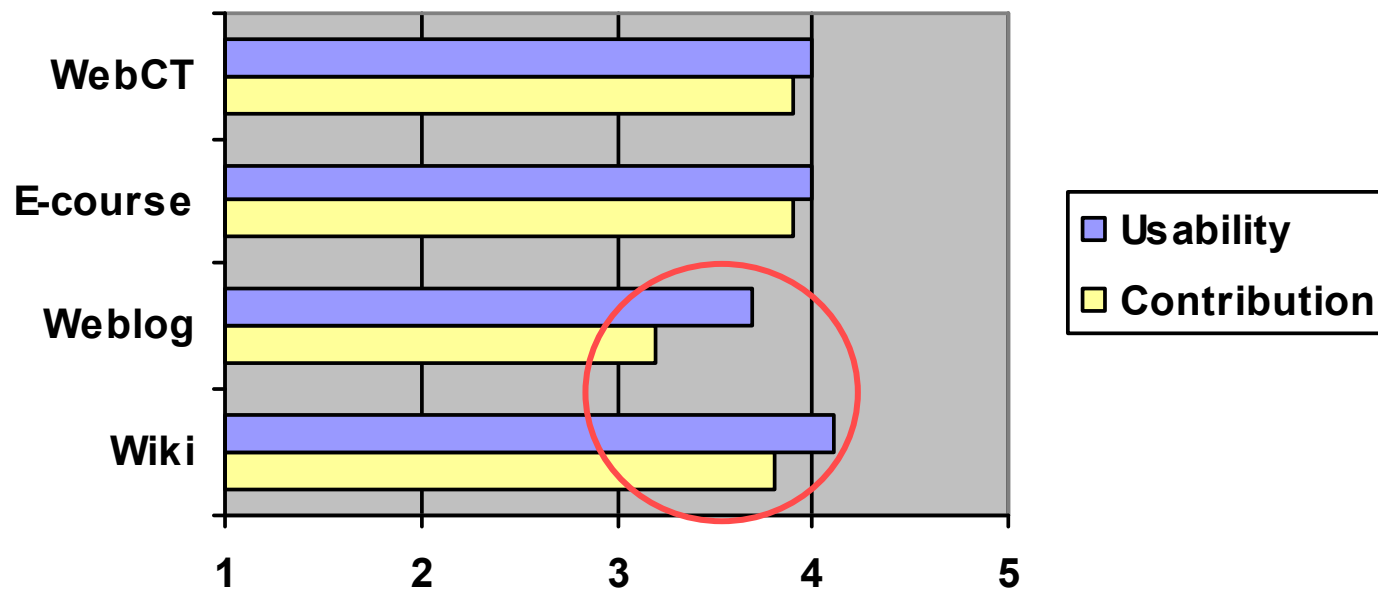
- ◆ Usefulness of online tools (1 -very bad; 5 - very good)





## Evaluation of online tools /2

Usability and contribution to the blended learning course (1 -very bad; 5 - very good)





# The Engwiki project /1

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## ◆ Goals

- Research into experimental use of a wiki for EFL/ESP
- New and more motivating out-of class activities complementing the basic course
- Variety, personalization, individualization of teaching and learning

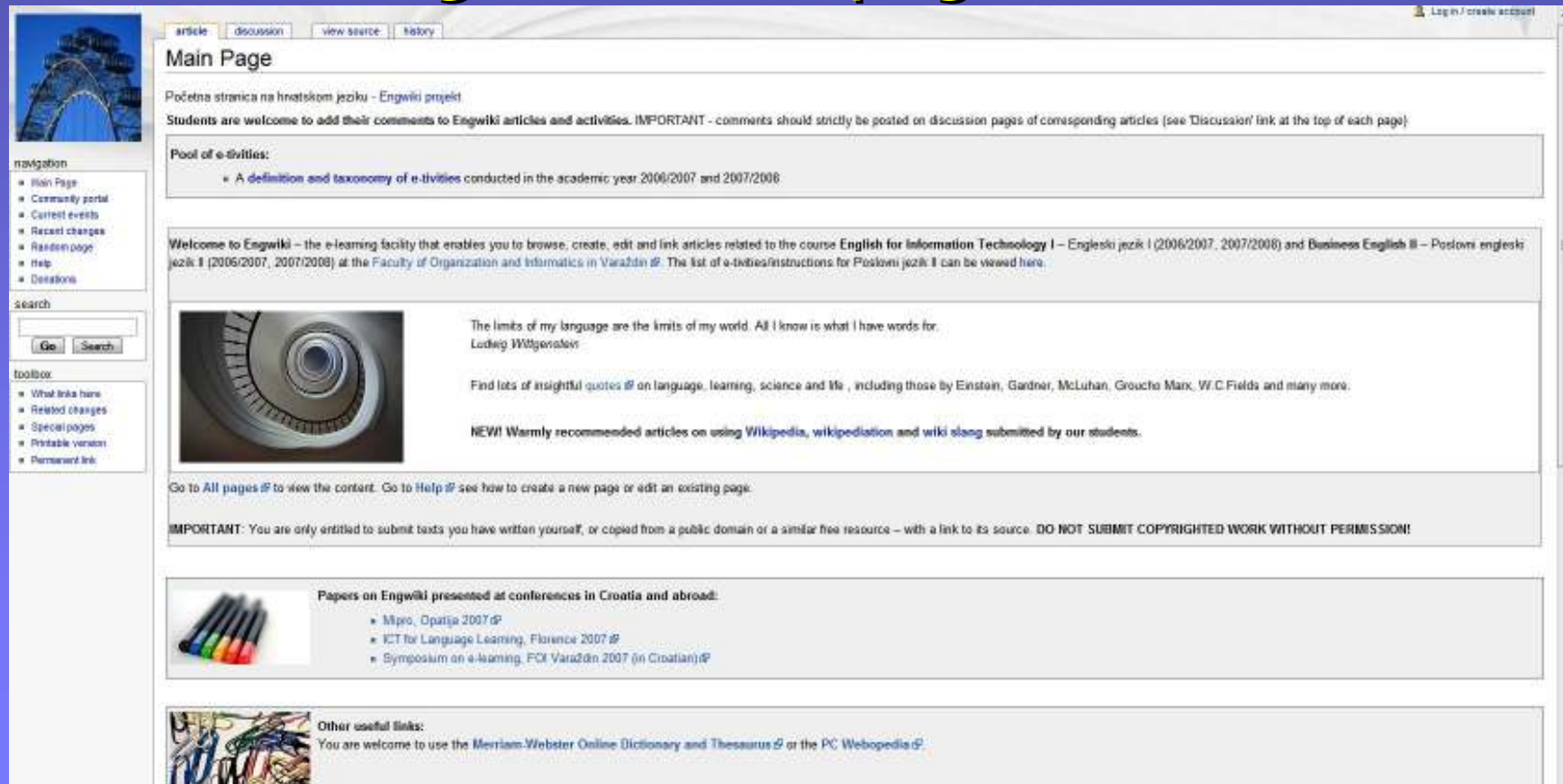
## ◆ Challenges

- Changing role of the teacher / students
- Greater responsibility and preparation
- ICT support and competence
- A broader view of what education should/could be

Kovačić, A., Bubaš, G., Zlatović, M., Balaban, I. (2008). Designing e-learning activities with a wiki for students of English as a foreign language. *"New Learning Cultures", Electronic Proceedings of the EDEN 2008 Annual Conference, Lisbon, Portugal.*

# The Engwiki project /2

## The *Engwiki* homepage



The screenshot shows the Engwiki homepage with a navigation sidebar on the left and a main content area. The sidebar includes sections for navigation, search, and toolbox. The main content area features a 'Main Page' header, a welcome message in Croatian, a 'Pool of e-tivities' section, a quote by Ludwig Wittgenstein, a 'NEW!' section for recommended articles, and a 'Papers on Engwiki' section.

**navigation**

- Main Page
- Community portal
- Current events
- Recent changes
- Random page
- Help
- Donations

**search**

**toolbox**

- What links here
- Related changes
- Special pages
- Printable version
- Permanent link

**Main Page**


Početa stranica na hrvatskom jeziku - Engwiki projekt

Students are welcome to add their comments to Engwiki articles and activities. IMPORTANT - comments should strictly be posted on discussion pages of corresponding articles (see Discussion/ link at the top of each page)

**Pool of e-tivities:**

- A definition and taxonomy of e-tivities conducted in the academic year 2006/2007 and 2007/2008

Welcome to Engwiki – the e-learning facility that enables you to browse, create, edit and link articles related to the course **English for Information Technology I – Engleski jezik I (2006/2007, 2007/2008)** and **Business English II – Poslovni engleski jezik II (2006/2007, 2007/2008)** at the Faculty of Organization and Informatics in Varaždin. The list of e-tivities/instructions for Poslovni jezik II can be viewed here.

 The limits of my language are the limits of my world. All I know is what I have words for.  
Ludwig Wittgenstein

Find lots of insightful quotes on language, learning, science and life, including those by Einstein, Gardner, McLuhan, Groucho Marx, W.C. Fields and many more.

**NEW!** Warmly recommended articles on using Wikipedia, wikipediaion and wiki slang submitted by our students.

Go to [All pages](#) to view the content. Go to [Help](#) to see how to create a new page or edit an existing page.

**IMPORTANT:** You are only entitled to submit texts you have written yourself, or copied from a public domain or a similar free resource – with a link to its source. **DO NOT SUBMIT COPYRIGHTED WORK WITHOUT PERMISSION!**

**Papers on Engwiki presented at conferences in Croatia and abroad:**

- Mipro, Opatjevo 2007
- ICT for Language Learning, Florence 2007
- Symposium on e-learning, FOI Varaždin 2007 (in Croatian)

**Other useful links:**

You are welcome to use the [Merriam-Webster Online Dictionary and Thesaurus](#) or the [PC Webopedia](#).



# The Engwiki project /3

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## ◆ *Engwiki* e-tivities

- wiki-based learning activities
- intended for collaborative language learning

## ◆ Taxonomy of e-tivities

- Extensive:  
(free) input and output,  
content and non-linguistic challenge
- Intensive:  
(controlled) input and output,  
insisting on accuracy; less open-ended

# The Engwiki project /4

## Example 1 of an e-tivity for *Engwiki*

- Content-based wiki article (theme “E-book”)



The screenshot shows a wiki article page for "E-book". At the top, there are navigation tabs: "article", "discussion", "edit", and "history". The article title "E-book" is displayed in a large font. Below the title, the author information "E-book (by Kristina Gibanjek, 1, G12)" is shown. The main text of the article begins with "E-book (also called as ebook, eBook) has many definitions although everyone says the same thing. I didn't know which one to pick so I wrote most of them." This is followed by three bullet points, each starting with "->". The first bullet point states: "E-book is electronic book that readers can download from the Internet or borrow through a library and read using a handheld device." The second bullet point states: "E-book is an electronic version of a book that is found and read on the Web." The third bullet point states: "E-book is an electronic book. Usually, it is a book that has previously been published in paper, reproduced in electronic format, and made available on a database such as netLibrary." Below the text is a large, stylized illustration of an open book with a glowing orange spine and pages, set against a background of horizontal yellow lines. At the bottom of the article, there is a final bullet point: "-> E-book is an electronic (or digital) version of a book. The term is used ambiguously to refer to either an individual work in a digital format, or a hardware device used to read books in digital format. Some users deprecate the second meaning in favour of the more precise 'ebook device.'"

article discussion edit history

## E-book

**E-book** (by Kristina Gibanjek, 1, G12)

E-book (also called as ebook, eBook) has many definitions although everyone says the same thing. I didn't know which one to pick so I wrote most of them.

- > E-book is electronic book that readers can download from the Internet or borrow through a library and read using a handheld device.
- > E-book is an electronic version of a book that is found and read on the Web.
- > E-book is an electronic book. Usually, it is a book that has previously been published in paper, reproduced in electronic format, and made available on a database such as netLibrary.



- > E-book is an electronic (or digital) version of a book. The term is used ambiguously to refer to either an individual work in a digital format, or a hardware device used to read books in digital format. Some users deprecate the second meaning in favour of the more precise "ebook device."

# The Engwiki project /5

- ◆ Example 2 of an e-tivity for *Engwiki*
- *Hall of fame* (extensive activity; theme “Napster”)

article discussion edit history

## Hall of Fame - 11. Napster

**Contents** [hide]

- 1 Napster: The Sound of Music
- 2 Peer-to-Peer File Sharing
- 3 Piracy Issues
- 4 Current Status
- 5 The reason why Napster should be in the Hall of Fame
- 6 External Links

[edit]

### Napster: The Sound of Music

Napster is an online **music service** which was originally a **file sharing** service created by Shawn Fanning. Napster was the first widely-used **peer-to-peer** (or **P2P**) music sharing service, and it made a major impact on how people used the Internet. Its technology allowed music fans to easily share MP3 format song files with each other, thus leading to the music industry's accusations of massive copyright violations. Although the original service was shut down by court order, it paved the way for decentralized P2P file-sharing programs such as Kazaa, Limewire, and BearShare, which are now used for many the same reasons and can download music, pictures, and other things. The popularity and repercussions of the first Napster have made it a legendary icon in the computer and entertainment fields.



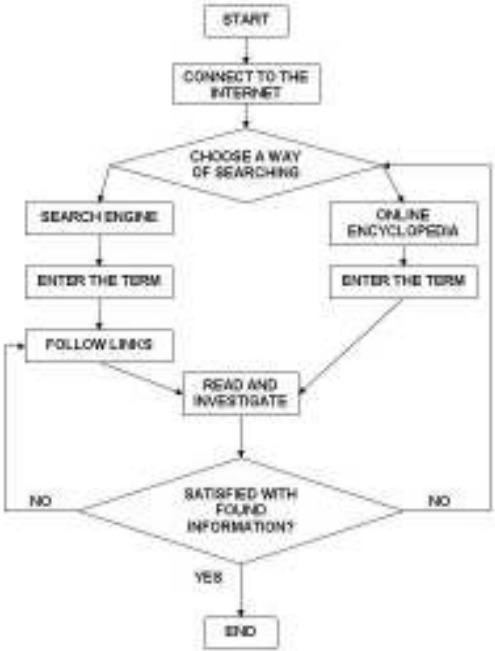
# The Engwiki project /6

## Example 3 of an e-tivity for *Engwiki*

### Flowchart (intensive activity; theme “Web search”)

article discussion edit history

The process:  
Flowchart of web searching



```
graph TD; START([START]) --> CONNECT[CONNECT TO THE INTERNET]; CONNECT --> CHOOSE{CHOOSE A WAY OF SEARCHING}; CHOOSE --> SEARCH[SEARCH ENGINE]; CHOOSE --> ENCYC[ONLINE ENCYCLOPEDIA]; SEARCH --> ENTER_TERM[ENTER THE TERM]; ENCYC --> ENTER_TERM; ENTER_TERM --> FOLLOW[FOLLOW LINKS]; FOLLOW --> READ[READ AND INVESTIGATE]; ENTER_TERM --> READ; READ --> SATISFIED{SATISFIED WITH FOUND INFORMATION?}; SATISFIED -- NO --> FOLLOW; SATISFIED -- YES --> END([END]);
```

**Interpretation of the flowchart**

**Step 1**  
How to search the web for information?  
First of all we need an Internet service provider (ISP) and some hardware to connect to the internet. What is ISP? An ISP provides access to the internet. You sign up for an account with an ISP just as you do for telephone service or utilities. What kind of Hardware do we need? For a broadband connection such as Digital Subscriber Line (DSL) or cable, you need a DSL or cable modem. This is usually included as part of the start-up hardware from your ISP when you sign up for a broadband account. For a dial-up connection, you need a dial-up modem. Many computers come with this type of modem already installed.

**Step 2**  
When the Internet connection is established we have to choose a way of searching. We can either use a search engine (such as Yahoo!, Google, and Ask.com) or an online encyclopedia (such as Wikipedia) to find the required information.

**Step 3 A**  
If we choose the search engine first of all we have to enter the wanted term. But, what is actually a search engine? The term "search engine" is often used generically to describe both crawler-based search engines and human-powered directories. These two types of search engines gather their listings in radically different ways. Crawler-based search engines, such as Google or Yahoo, create their listings automatically. They "crawl" or "spider" the web, then people search through what they have found. A human-powered directory, such as the Open Directory, depends on humans for its listings. You submit a short description to the directory for your entire site, or editors write one for sites they review. A search looks for matches only in the descriptions submitted.

**Step 4 A**

# The Engwiki project /7

## Evaluation of e-tivities

EXAMPLES OF PREDOMINANTLY EXTENSIVE (FREE) INPUT AND OUTPUT E-TIVITIES			
<b>Collections of online resources</b>			
<i>Hotlist</i> M <sub>u</sub> =3.44 ; M <sub>i</sub> =3.44 ; N=16		<i>Media Scrapbook</i> M <sub>u</sub> =3.19 ; M <sub>i</sub> =3.25 ; N=16	
<i>Quiz</i> M <sub>g</sub> =3.38 ; N=87			
<b>Histories, biographies and analogies</b>			
<i>Paradoxes</i> M <sub>u</sub> =2.88 ; M <sub>i</sub> =3.00 ; N=56	<i>Decades of the 20th Century</i> M <sub>u</sub> =3.02 ; M <sub>i</sub> =3.06 ; N=98	<i>Hall of Fame</i> M <sub>g</sub> =3.35 ; N=79	
<b>Narratives and role plays</b>			
<i>Storyboard (Complaints)</i> M <sub>u</sub> =3.71 ; M <sub>i</sub> =3.83 ; N=7	<i>Debate (Globalization)</i> M <sub>u</sub> =3.83 ; M <sub>i</sub> =3.91 ; N=12	<i>(Not) Your Cup of Tea?</i> M <sub>u</sub> =2.74 ; M <sub>i</sub> =3.11 ; N=47	
<b>Opinion-based e-tivities</b>			
<i>Brainwriting</i> M <sub>u</sub> =3.82 ; M <sub>i</sub> =4.05 ; N=11	<i>Challenge</i> M <sub>u</sub> =2.66 ; M <sub>i</sub> =3.07 ; N=29	<i>Chain Letter</i> M <sub>u</sub> =3.58 ; M <sub>i</sub> =4.09 ; N=11	<i>Friend or Foe?</i> M <sub>u</sub> =2.57 ; M <sub>i</sub> =2.83 ; N=30
<b>Experience-based e-tivities</b>			
<i>Time capsule</i> M <sub>u</sub> =2.69 ; M <sub>i</sub> =2.98 ; N=45		<i>My First Encounter With...</i> M <sub>g</sub> =3.39 ; N=87	

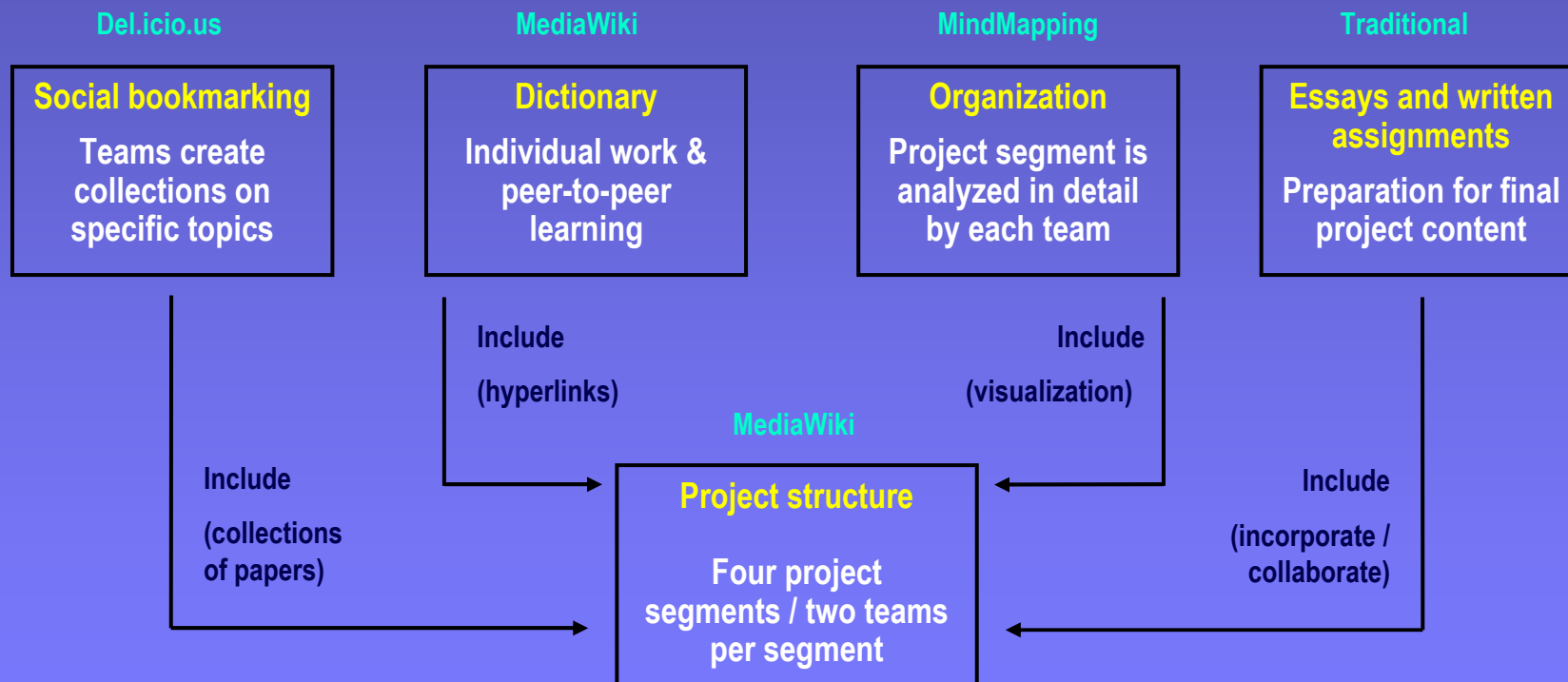
\* M<sub>u</sub> - average rating of usefulness; M<sub>i</sub> - average rating of interestingness ; M<sub>g</sub> - average rating of general aspects of e-tivity

\*\* the rating for M<sub>u</sub>, M<sub>i</sub> and M<sub>g</sub> was performed on a Likert-type scale ranging from 1-very poor to 5-very good



# University CRM project /1

## Project-oriented e-tivities for teams of students





# Conclusion

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- ◆ Wikis, blogs and social bookmarking tools can be used for the creation and implementation of useful and interesting online learning activities.
- ◆ Various Web 2.0 applications enable novel designs of online learning environments.
- ◆ Innovation in online education may be costly, but it is also rewarding and potentially very effective.