

# **Objekt učenja u repozitoriju - gradivni element digitalnih obrazovnih materijala**

*Ivana Salopek, Maja Stracenski Kalauz, Goran Hudec,  
Sveučilište u Zagrebu, Tekstilno-tehnološki fakultet*

## Objekt učenja

Objekt učenja (engl. Learning object) je element znanja koji se koristi u obrazovnom procesu, a zapisan je u digitalnom obliku

Može sadržavati različite elemente, primjerice, tekst, grafiku (crteže, slike, sheme), zvučne zapise, video zapise (simulacija, film) ili interaktivnu web stranicu.

Temeljne prednosti korištenja:

- pristupačnost (objekti su postavljeni na poslužitelj i dostupni putem Interneta)
- funkcioniranje u različitim programskim okruženjima
- jednostavnost korištenja uz različite primjene

## **Repozitoriji objekata učenja**

Obrazovne organizacije širom svijeta koriste objekte učenja u obrazovnom procesu te ih organiziraju u tzv. repozitorije, odnosno zbirke digitalnih obrazovnih materijala koje omogućavaju korištenje i pohranjivanje obrazovnog sadržaja.

U repozitorijima je svaki objekt učenja opisan skupom odabralih meta podataka kako bi bio prepoznat po svojim karakteristikama.

Najpoznatiji repozitoriji objekata učenja u svijetu su CAREO (Campus Alberta Repository of Educational Objects), CLOE (Cooperative Learning Object Exchange), D-scholarship/DSpace, Educanext, Illumina i MERLOT (Multimedia Educational Resource for Learning and Online Teaching).

## Izrada i objava objekta učenja

Za potrebe rada izrađen je objekt učenja pod nazivom „The yarn evenness“ (u prijevodu „Nejednoličnost pređe“).

Objekt učenja opisuje jedno od bitnih svojstava pređe (nejednoličnost) i to kroz određenje svojstva, matematičke izraze za definiranje svojstva te metode određivanja svojstva koja je pojašnjena pomoću animacije.

Objekt učenja je nakon izrade postavljen na stranicu sjedišta CARNetovog Referalnog centra za izradu obrazovnih materijala koji se bavi problematikom izrade e-materijala te pruža podršku nastavnom osoblju zainteresiranom za izradu i objavu vlastitih obrazovnih materijala. Adresa sjedišta Referalnog centra je <http://www.carnet.hr/referalni/obrazovni/iom>.

## **Odabir baze za objavu objekta**

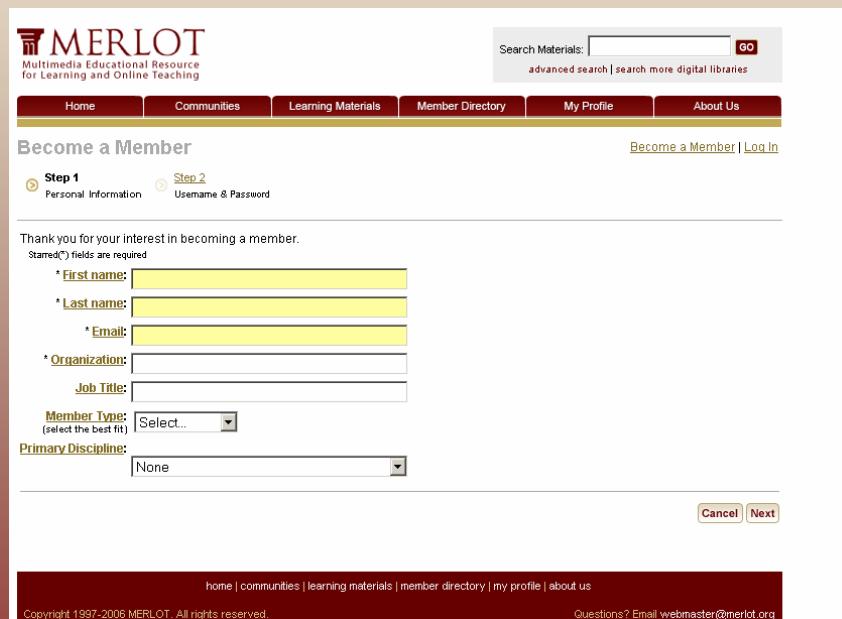
Nakon objave objekta, uslijedio je odabir repozitorija u kojem će se objekt objaviti te je iz niza postojećih odabran repozitorij baze MERLOT (adresa <http://www.merlot.org/>).

Baza MERLOT okuplja članove iz oko 10 000 sveučilišta i srednjih škola širom svijeta, a u svom repozitoriju ima više od 16 000 objekata učenja koje su suradnici baze bez naknade stavili na raspolaganje drugim korisnicima.

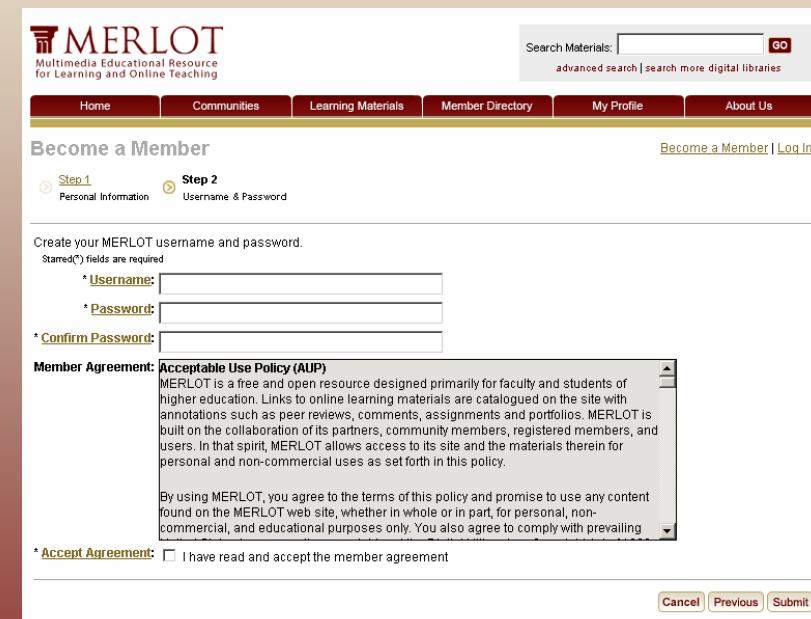
Objekti su, radi lakšeg pretraživanja podijeljeni u sedam područja, i to: umjetnost, poslovanje, edukacija, društvene znanosti, matematika i statistika, znanost i tehnologija te socijalne znanosti.

## Registracija

Prvi uvjet za objavu objekta učenja je registracija u MERLOT bazi. U postupku registracije, osoba je dužna dati temeljne osobne podatke (ime, prezime, elektroničku poštu, naziv organizacije u kojoj je zaposlen, radno mjesto, područje djelovanja), a nakon završetka registracije na njenu elektronsku poštu stiže pismo s lozinkom i korisničkim imenom koji se koriste za ulazak u repozitorij baze i prijavu novih objekata.



The screenshot shows the first step of the registration process, titled "Step 1 Personal Information". It includes fields for First name, Last name, Email, Organization, Job Title, Member Type (dropdown menu), and Primary Discipline (dropdown menu). A note states that marked (\*) fields are required. At the bottom are "Cancel" and "Next" buttons.



The screenshot shows the second step of the registration process, titled "Step 2 Username & Password". It includes fields for Username, Password, and Confirm Password. Below these is a "Member Agreement" section containing the "Acceptable Use Policy (AUP)". A note states that marked (\*) fields are required. At the bottom are "Cancel", "Previous", and "Submit" buttons.

## Faze objave

Prije same objave objekta učenja potrebno je upisati lozinku i korisničko ime, a zatim odabrati opciju za prijavu materijala.

Sama prijava materijala teče u pet faza:

1. Prijava naziva i URL-a na kojoj se objekt nalazi
2. Opis objekta
3. Kategorija
4. Podaci o autoru
5. Dodatne informacije

## 1. Prijava naziva i URL-a na kojoj se objekt nalazi

The screenshot shows the MERLOT website interface. At the top, there is a navigation bar with links for Home, Communities, Learning Materials, Member Directory, My Profile, and About Us. To the right of the navigation bar is a search bar with the placeholder "Search Materials:" and a "GO" button. Below the search bar are links for "advanced search" and "search more digital libraries". The main content area has a title "Contribute A Material" and a welcome message "Welcome Ivana Salopek | [Log Out](#)". Below this, there are five steps labeled "Step 1" through "Step 5", each with a circular icon. Step 1 is highlighted in yellow and labeled "Title & URL". Step 2 is "Description", Step 3 is "Category", Step 4 is "Author", and Step 5 is "Optional Information". A horizontal line separates this from the contribution form. The form contains two required fields: "Title" (containing "The yarn eveness") and "URL" (containing "http://www.carnet.hr/crepozitorij/yarn\_evennes.htm"). A small link "[test]" is visible next to the URL field.

## 2. Opis objekta (Uključuje detaljni opis objekta, određenje vrste materijala, publike kojoj je materijal primarno namijenjen, URL adrese)

 **MERLOT**  
Multimedia Educational Resource  
for Learning and Online Teaching

Search Materials:  **GO**  
[advanced search](#) | [search more digital libraries](#)

Home Communities Learning Materials Member Directory My Profile About Us

**Contribute A Material** Welcome Ivana Salopek | [Log Out](#)

Step 1 Step 2 Step 3 Step 4 Step 5  
Title & URL Description Category Author Optional Information

---

Provide as much details about the material as you can, include keywords in your description to help others find it in MERLOT.  
Starred(\*) fields are required

\* **Description:**   
The topic of the object is the yarn evenness. The object gives the description of the property, statistics for the yarn evenness and method of the yarn evenness measurement.

\* **Material Type:** Lecture/Presentation

**Primary Audience:** (check all that apply)  
 Grade School  College Lower Division  
 Middle School  College Upper Division  
 High School  Graduate School  
 College General Ed  Professional

**Mirror Site URL:**  [test]

**Display Image URL:**  (100 x 100 pixels) [test]

### 3. Kategorija (definiranje kategorije u koju se objekt može svrstati i jezika objekta)



Multimedia Educational Resource  
for Learning and Online Teaching

Search Materials:    
[advanced search](#) | [search more digital libraries](#)

[Home](#)

[Communities](#)

[Learning Materials](#)

[Member Directory](#)

[My Profile](#)

[About Us](#)

#### Contribute A Material

Welcome Ivana Salopek | [Log Out](#)

Step 1  
Title & URL

Step 2  
Description

Step 3  
Category

Step 4  
Author

Step 5  
Optional Information

Specify at least one subject category for the material, continue selecting categories until you have reached the most appropriate.

Starred(\*) fields are required

\* **Category:**

Categories added:

[Delete](#)

Science and Technology

**Language:**

Languages added:

[Delete](#)

English

#### 4. Podaci o autoru (ime, prezime, elektronička pošta, organizacija)

 **MERLOT**  
Multimedia Educational Resource  
for Learning and Online Teaching

Search Materials:  **GO**  
[advanced search](#) | [search more digital libraries](#)

[Home](#) [Communities](#) **Learning Materials** [Member Directory](#) [My Profile](#) [About Us](#)

**Contribute A Material** Welcome Ivana Salopek | [Log Out](#)

Step 1 Step 2 Step 3 Step 4 Step 5  
Title & URL Description Category Author Optional Information

---

Provide any Author information known about the material and click Add.

**First name:**

**Last name:**

**Email:**

**Organization:**

**Add**

Authors added :

[Delete](#) Ivana Salopek ivana.salopek@ttf.hr Faculty of Textile Technology [View Profile](#)

5. Dodatne informacije (format objekta, tehnički zahtjevi, alat kojim je objekt izrađen, broj verzije materijala, traži li se naknada za korištenje objekta, autorska prava)

The screenshot shows the MERLOT website interface for contributing a material. At the top, there is a navigation bar with links for Home, Communities, Learning Materials (which is highlighted in yellow), Member Directory, My Profile, and About Us. To the right of the navigation bar is a search bar with a 'GO' button and links for advanced search and searching more digital libraries. Below the navigation bar, the page title 'Contribute A Material' is displayed, along with a welcome message for the user 'Ivana Salopek' and a 'Log Out' link. The main content area is titled 'Step 5 Optional Information'. It includes fields for 'Technical Format' (set to 'Other'), 'Technical Requirements' (a large text area), 'Learning Management System' (checkboxes for WebCT, Blackboard, Desire2Learn, and Angel Learning, with an additional field for other LMS names), 'Material Version' (a text input field), 'Cost Involved' (radio buttons for yes, no, unsure), 'Source Code Available' (radio buttons for yes, no, unsure), 'Section 508 compliant' (radio buttons for yes, no, unsure), and 'Copyright' (radio buttons for yes, no, unsure).

MERLOT  
Multimedia Educational Resource  
for Learning and Online Teaching

Search Materials:  **GO**  
[advanced search](#) | [search more digital libraries](#)

Home Communities **Learning Materials** Member Directory My Profile About Us

Welcome Ivana Salopek | [Log Out](#)

Contribute A Material

Step 1 Step 2 Step 3 Step 4 Step 5  
Title & URL Description Category Author Optional Information

Include any other optional information you know about the material.

Technical Format:

Technical Requirements:

Learning Management System:  WebCT  Angel Learning  
 Blackboard  ???icon.other????  
 Desire2Learn

Material Version:

Cost Involved:  yes  no  unsure

Source Code Available:  yes  no  unsure

Section 508 compliant:  yes  no  unsure

Copyright:  yes  no  unsure

Prijavljeni se objekt postavlja u repozitorij, u kategoriju koja je odabrana tijekom postupka prijave objekta. Time objekt postaje dostupan svim posjetiteljima sjedišta baze.

The screenshot shows a user interface for a digital library. At the top, there is a navigation bar with links for Home, Communities, Learning Materials, Member Directory, My Profile, and About Us. A search bar is located at the top right, with a 'GO' button and links for advanced search and more digital libraries. The main content area is titled 'Material Detail' and features a heading 'The yarn evenness'. To the left of the heading is a placeholder image labeled 'No Image Available'. Below the heading are several metadata fields: Material Type (Lecture/Presentation), Technical Format (Shockwave), Cost involved (no), Location (go to material), Date Added (listopad 06, 2006), and Date Modified (listopad 06, 2006). There is also information about the author (Ivana Salopek) and submitter (Ivana Salopek). A 'Description' section provides a brief overview of the object's purpose. On the right side of the detail page, there are three boxes: one for 'About this material' (listing Peer Reviews, Comments, Assignments, and Personal Collections), one for adding comments or assignments, and one for authorized users only (with an 'Edit material' link).

**MERLOT**  
Multimedia Educational Resource  
for Learning and Online Teaching

Search Materials:  **GO**  
[advanced search](#) | [search more digital libraries](#)

Home Communities Learning Materials **Member Directory** My Profile About Us

**Material Detail**

Welcome Ivana Salopek | [Log Out](#)

**The yarn evenness**

**No Image Available**

**Material Type:** Lecture/Presentation  
**Technical Format:** Shockwave  
**Cost involved:** no  
**Location:** [go to material](#)  
**Date Added:** listopad 06, 2006  
**Date Modified:** listopad 06, 2006

**Author:** Ivana Salopek [✉](#)  
Faculty of Textile Technology  
**Submitter:** [Ivana Salopek](#)

**Description:**  
The topic of the object is the yarn evenness. The object gives the description of the property, statistics for the yarn evenness and method of the yarn evenness measurement.

**Browse in Categories:**  
- [Science and Technology](#)

**More information about this material:**  
**Primary Audience:** College General Ed  
**Language:** English  
**Copyright:** unsure  
**Source Code Available:** no  
**Section 508 compliant:** unsure

**About this material:**

Peer Reviews (not reviewed)  
Comments (none)  
Assignments (none)  
Personal Collections (none)

**Add your own:**

[Write a comment](#)  
[Create an assignment](#)  
[Add a snapshot](#)

**Add to a personal collection :**

New personal collection

**Authorized users only:**

[Edit material](#)