

Otvorena nauka i otvoreni podaci

Edukativni moduli o zaštiti intelektualnog
vlasništva

Vladimir Risojević
Elektrotehnički fakultet
Univerzitet u Banjoj Luci



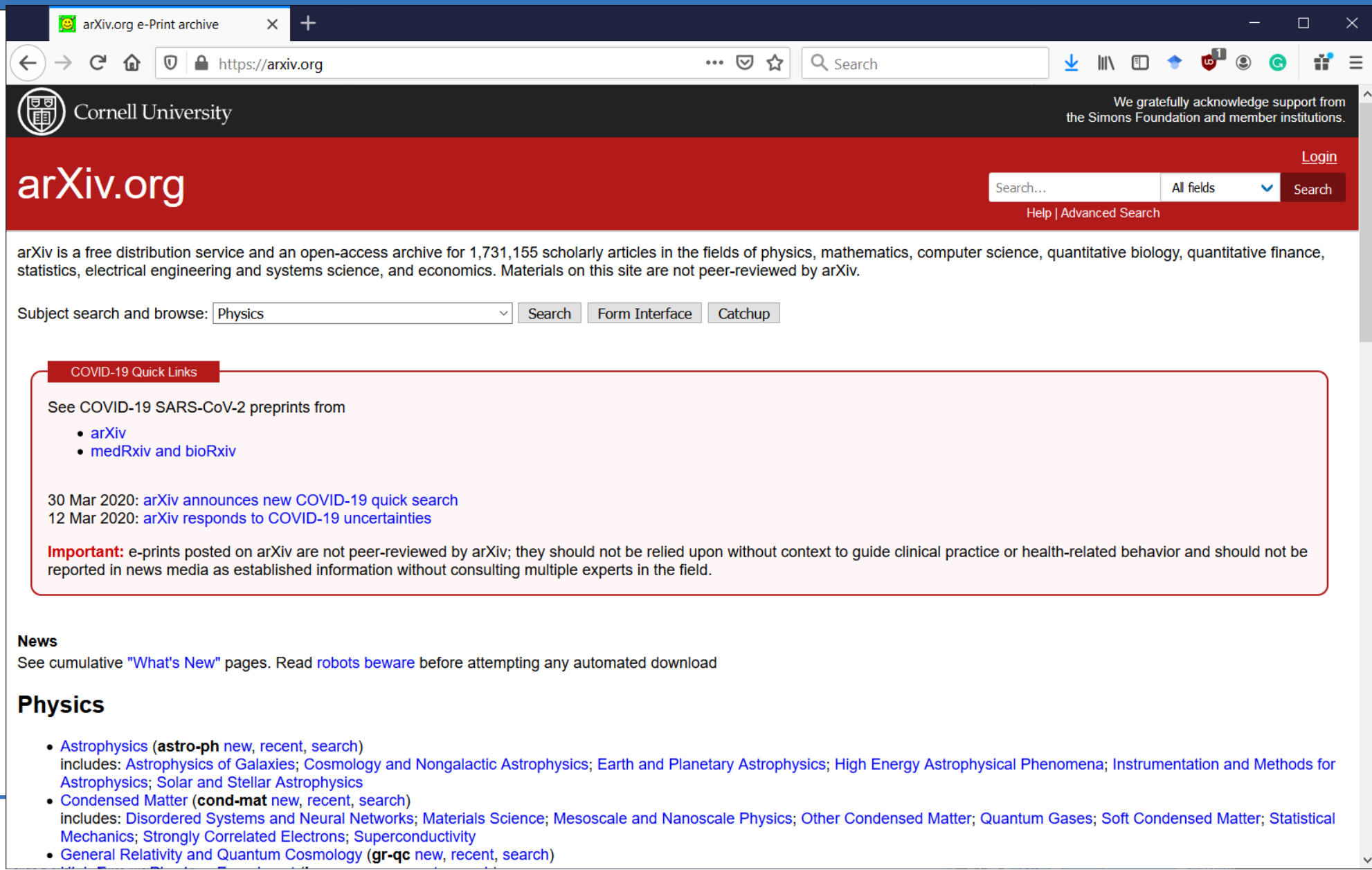
- **Naziv:** National Initiatives for Open Science in Europe
 - **Akronim:** NI4OS-Europe (izgovara se "NIFOS")
 - **Poziv:** INFRAEOSC-05 (b)
Coordination of EOSC-relevant national initiatives across Europe and support to prospective EOSC service providers - Research and Innovation Actions
 - **Broj granta:** 857645
 - **Učesnici:** 22 partnera iz 15 država
-

- Otvorena nauka
 - Otvoren pristup naučnim publikacijama
 - Otvoren pristup primarnim podacima
 - Transparentnost naučne komunikacije i metodologije
 - Razvoj digitalne infrastrukture
 - Otvoreno znanje čine sadržaj, informacije i podaci koji se mogu slobodno koristiti, ponovno koristiti i redistribuirati bez zakonskih, tehnoloških ili socijalnih ograničenja ([Open Knowledge Foundation](#))
-

Zašto mi je ovo bitno?



Pristup naučnim publikacijama



The screenshot shows the arXiv.org website interface. At the top, there is a browser window with the address bar showing 'https://arxiv.org'. The website header includes the Cornell University logo and the text 'We gratefully acknowledge support from the Simons Foundation and member institutions.' Below this, the 'arXiv.org' logo is prominently displayed on the left, and a search bar is on the right with a 'Search' button and a 'Login' link. A navigation menu below the search bar includes 'Help' and 'Advanced Search'. The main content area starts with a paragraph describing arXiv as a free distribution service for 1,731,155 scholarly articles in physics, mathematics, computer science, quantitative biology, quantitative finance, statistics, electrical engineering and systems science, and economics. Below this is a 'Subject search and browse' section with a dropdown menu set to 'Physics' and buttons for 'Search', 'Form Interface', and 'Catchup'. A red-bordered box titled 'COVID-19 Quick Links' contains information about preprints, a list of links for arXiv and medRxiv and bioRxiv, dates for new search features, and an important disclaimer that e-prints are not peer-reviewed and should not be used for clinical practice. Below this is a 'News' section with a link to 'What's New' pages and a warning about automated downloads. The 'Physics' section follows, listing sub-fields like Astrophysics, Condensed Matter, and General Relativity and Quantum Cosmology with links to 'new', 'recent', and 'search' pages.

arXiv.org e-Print archive

https://arxiv.org

Cornell University

We gratefully acknowledge support from the Simons Foundation and member institutions.

arXiv.org

Search... All fields Search

Help | Advanced Search

arXiv is a free distribution service and an open-access archive for 1,731,155 scholarly articles in the fields of physics, mathematics, computer science, quantitative biology, quantitative finance, statistics, electrical engineering and systems science, and economics. Materials on this site are not peer-reviewed by arXiv.

Subject search and browse: Physics Search Form Interface Catchup

COVID-19 Quick Links

See COVID-19 SARS-CoV-2 preprints from

- [arXiv](#)
- [medRxiv and bioRxiv](#)

30 Mar 2020: [arXiv announces new COVID-19 quick search](#)
12 Mar 2020: [arXiv responds to COVID-19 uncertainties](#)

Important: e-prints posted on arXiv are not peer-reviewed by arXiv; they should not be relied upon without context to guide clinical practice or health-related behavior and should not be reported in news media as established information without consulting multiple experts in the field.

News
See cumulative "What's New" pages. Read [robots beware](#) before attempting any automated download

Physics

- **Astrophysics** ([astro-ph new](#), [recent](#), [search](#))
includes: [Astrophysics of Galaxies](#); [Cosmology and Nongalactic Astrophysics](#); [Earth and Planetary Astrophysics](#); [High Energy Astrophysical Phenomena](#); [Instrumentation and Methods for Astrophysics](#); [Solar and Stellar Astrophysics](#)
- **Condensed Matter** ([cond-mat new](#), [recent](#), [search](#))
includes: [Disordered Systems and Neural Networks](#); [Materials Science](#); [Mesoscale and Nanoscale Physics](#); [Other Condensed Matter](#); [Quantum Gases](#); [Soft Condensed Matter](#); [Statistical Mechanics](#); [Strongly Correlated Electrons](#); [Superconductivity](#)
- **General Relativity and Quantum Cosmology** ([gr-qc new](#), [recent](#), [search](#))

Non-thermal plasma in contact

https://www.inptdat.de/dataset/non-thermal-plasma-contact-water-origin-sp

York Plasma Institute
University of York
Heslington, York
YO10 5DQ
UK

[Homepage](#)
ypi-reception@york.ac.uk

License

Creative Commons Attribution 4.0 International (CC BY 4.0)

[OPEN DATA](#)

Metadata Export

[Plasma-MDS](#) [DataCite](#)

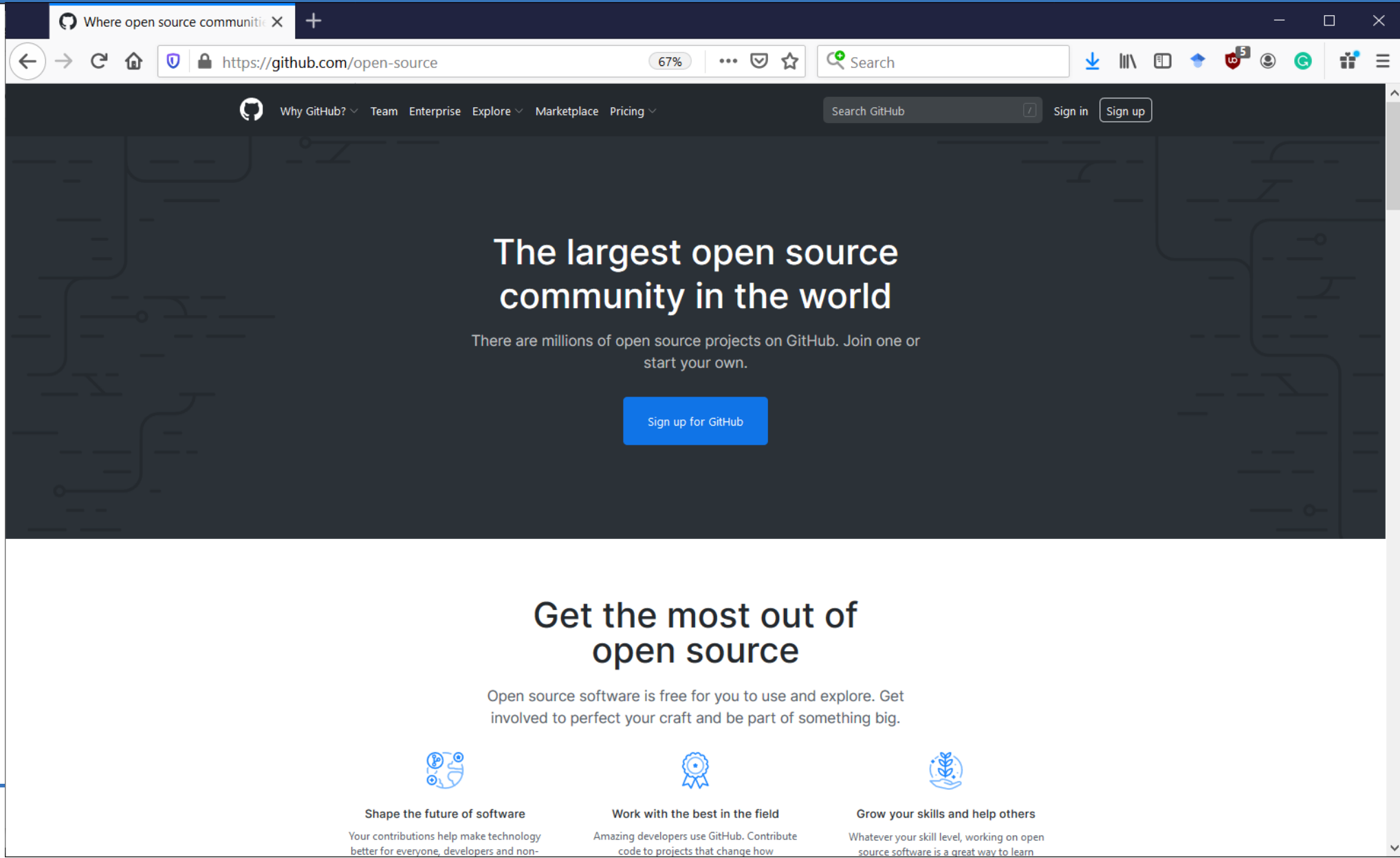
Other Access

The information on this page (the dataset metadata) is also available in these formats.

[JSON](#) [RDF](#)

via the [DKAN API](#)

Field	Value
Authors	Gorbanev, Yury Chechik, Victor O'Connell, Deborah
Release Date	2015-12-07
Resources	Non-thermal plasma in contact with water: The origin of species (external resource)
Identifier	aa998c4a-ccbe-4563-a96c-dc3169bace53
Permanent Identifier (DOI)	doi:10.15124/15f674be-e9ca-4a00-9ba6-3c24e70a6aa4
Permanent Identifier (URI)	https://www.inptdat.de/node/98
Is supplementing	Y. Gorbanev et al., Chemistry : A European Journal 22 (2016) 3496-3505
Plasma Source Name	kHz plasma jet CAP
Plasma Source Application	reactive species generation
Plasma Source Specification	AC low frequency atmospheric pressure non-thermal
Plasma Source Properties	The plasma was ignited in a quartz tube (4 mm ID and 6 mm OD, 100 mm length) surrounded by copper electrodes (10 mm width) separated by 20 mm. A PVM500 Plasma Resonant and Dielectric Barrier Corona Driver power supply (Information Unlimited) was used to sustain the plasma. The distance between the electrodes was 20 mm in all experiments. Voltage and frequency were kept



The screenshot shows the GitHub homepage in a browser window. The browser's address bar displays 'https://github.com/open-source' with a 67% zoom level. The page features a dark header with the GitHub logo, navigation links (Why GitHub?, Team, Enterprise, Explore, Marketplace, Pricing), a search bar, and 'Sign in' and 'Sign up' buttons. The main content area has a dark background with a white text overlay: 'The largest open source community in the world' and 'There are millions of open source projects on GitHub. Join one or start your own.' Below this is a blue 'Sign up for GitHub' button. The lower section of the page is white and contains the heading 'Get the most out of open source' followed by a paragraph: 'Open source software is free for you to use and explore. Get involved to perfect your craft and be part of something big.' At the bottom, there are three columns, each with an icon and a title: 'Shape the future of software', 'Work with the best in the field', and 'Grow your skills and help others'. Each column also includes a short paragraph of text.

Where open source communiti X +

https://github.com/open-source 67% Search

Why GitHub? Team Enterprise Explore Marketplace Pricing Search GitHub Sign in Sign up




The largest open source community in the world

There are millions of open source projects on GitHub. Join one or start your own.

Sign up for GitHub

Get the most out of open source

Open source software is free for you to use and explore. Get involved to perfect your craft and be part of something big.

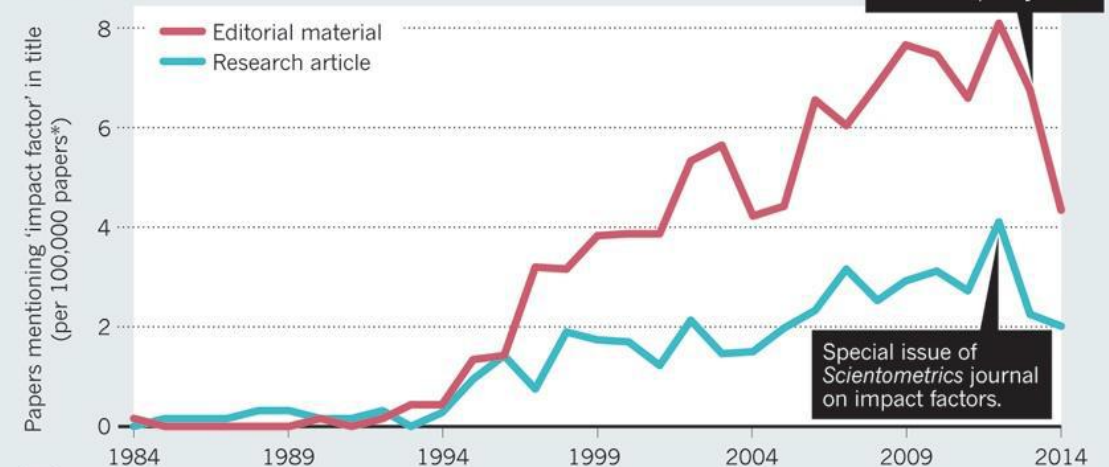
- **Shape the future of software**
Your contributions help make technology better for everyone, developers and non-
- **Work with the best in the field**
Amazing developers use GitHub. Contribute code to projects that change how
- **Grow your skills and help others**
Whatever your skill level, working on open source software is a great way to learn

- ❑ Evaluacija istraživanja se svodi na mjerenje – kvantitativna evaluacija
- ❑ Neophodna je i kvalitativna evaluacija
- ❑ Lajdenski manifest o vrednovanju istraživanja
 - ❑ http://www.leidenmanifesto.org/uploads/4/1/6/0/41603901/lajdenski_manifest_serbian.pdf

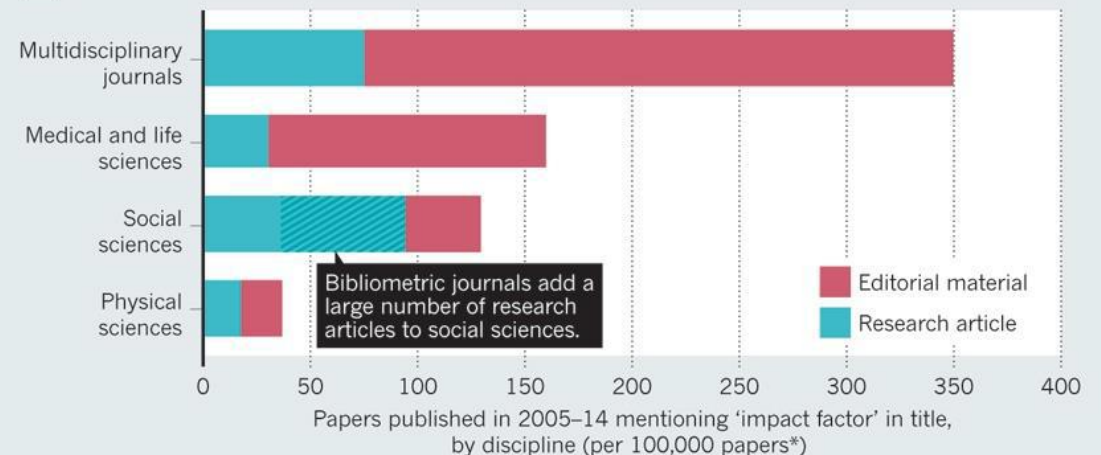
IMPACT-FACTOR OBSESSION

Soaring interest in one crude measure — the average citation counts of items published in a journal in the past two years — illustrates the crisis in research evaluation.

1 ARTICLES MENTIONING 'IMPACT FACTOR' IN TITLE



2 WHO IS MOST OBSESSED?



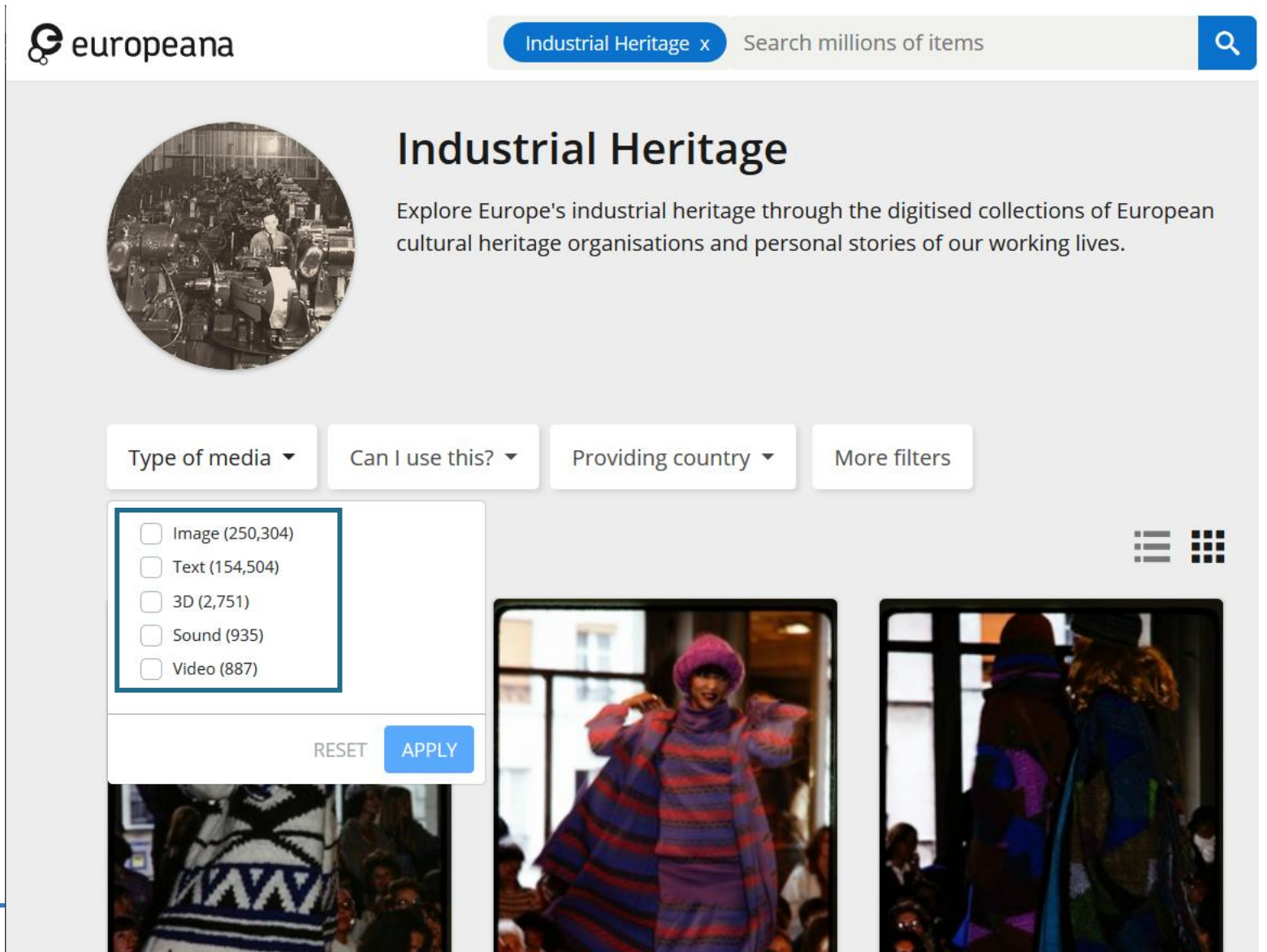
- Reakcije na Platformu za otvorenu nauku MPNTR Republike Srbije:
 - Kako može da se traži da omogućim uvid u svoje neobjavljene podatke, kada postoji opasnost da ih neko drugi iskoristi, objavi itd?
 - Na osnovu čega ću pisati rad i ko će mi takav rad prihvatiti za objavljivanje?
 - Kako smemo da objavimo podatke, kada tu ima i ličnih informacija o ispitanicima?
 - U mojoj oblasti istraživanja ne postoje podaci.
 - ...

Da li koristite podatke u istraživanju?



Šta su podaci u društvenim i humanističkim naukama?

- Primarni izvori
- Sekundarni izvori
- Teorijski tekstovi
- Metodološki alati
- Digitalni alati
- Bilješke
- Reference...

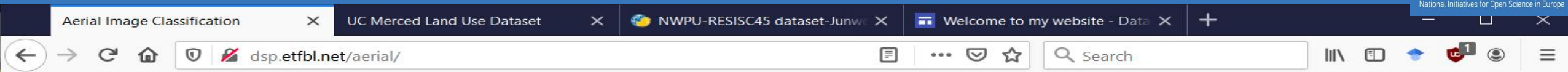


The screenshot shows the Europeana website interface for the 'Industrial Heritage' collection. At the top, the Europeana logo is on the left, and a search bar contains 'Industrial Heritage x' and 'Search millions of items'. Below the search bar is a circular profile picture of a factory interior. To the right of the profile picture is the title 'Industrial Heritage' and a description: 'Explore Europe's industrial heritage through the digitised collections of European cultural heritage organisations and personal stories of our working lives.' Below the description are four filter buttons: 'Type of media', 'Can I use this?', 'Providing country', and 'More filters'. The 'Type of media' dropdown menu is open, showing a list of media types with their respective counts: Image (250,304), Text (154,504), 3D (2,751), Sound (935), and Video (887). Below the filters are three image thumbnails showing people wearing colorful, patterned clothing. The 'APPLY' button is highlighted in blue.

Kako pronalazite podatke?







Aerial Image Classification

The amount of remote sensed imagery that has become available by far surpasses the possibility of manual analysis. One of the most important tasks in the analysis of remote sensed images is land use classification. This task can be recast as semantic classification of remote sensed images.

Database of RGB+NIR aerial images

[Database](#) of aerial images with both RGB and NIR versions.

Database of RGB aerial images

The database consists of 606 RGB aerial images of size 128*128 pixels. They have been obtained by partitioning a larger (4500*6000 pixels) ortophoto image of the part of Banja Luka, Bosnia and Herzegovina. In this image there is a variety of structures, both man-made, such as buildings, factories, and warehouses, as well as natural, such as fields, trees and rivers.

We manually classified all images into 6 categories. Examples of images from each category are shown in the figure, from left to right: houses, cemetery, industry, field, river, and trees.



UC Merced Land Use Dataset

[Download the dataset.](#)

October 28, 2010

This is a 21 class land use image dataset meant for research purposes.

There are 100 images for each of the following classes:

- agricultural
- airplane
- baseballdiamond
- beach
- buildings
- chaparral
- denseresidential
- forest
- freeway
- golfcourse
- harbor
- intersection
- mediumresidential
- mobilehomepark
- overpass
- parkinglot
- river
- runway
- sparseresidential
- storagetanks
- tenniscourt

Each image measures 256x256 pixels.

The images were manually extracted from large images from the USGS National Map Urban Area Imagery collection for various urban areas around the country. The pixel resolution of this public domain imagery is 1 foot.

Please cite the following paper when publishing results that use this dataset:

Yi Yang and Shawn Newsam, "Bag-Of-Visual-Words and Spatial Extensions for Land-Use Classification," ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM GIS), 2010.

Shawn D. Newsam
Assistant Professor and Founding Faculty
Electrical Engineering & Computer Science

[Home](#)[Recent news](#)[Saliency Detection Based
On Deep Learning](#)[Publications](#)[Group members](#)[Co-saliency database:
Cosal2015](#)[NWPU VHR-10 dataset](#)[NWPU-RESISC45
dataset](#)

NWPU-RESISC45 dataset

NWPU-RESISC45 dataset is a publicly available benchmark for RE mote Sensing Image Scene Classification (RESISC), created by Northwestern Polytechnical University (NWPU). This dataset contains 31,500 images, covering 45 scene classes with 700 images in each class. These 45 scene classes include airplane, airport, baseball diamond, basketball court, beach, bridge, chaparral, church, circular farmland, cloud, commercial area, dense residential, desert, forest, freeway, golf course, ground track field, harbor, industrial area, intersection, island, lake, meadow, medium residential, mobile home park, mountain, overpass, palace, parking lot, railway, railway station, rectangular farmland, river, roundabout, runway, seaice, ship, snowberg, sparse residential, stadium, storage tank, tennis court, terrace, thermal power station, and wetland.

Please cite the following paper when publishing results that use this dataset fully or partly:

G. Cheng, J. Han, X. Lu. Remote Sensing Image Scene Classification: Benchmark and State of the Art. Proceedings of the IEEE.

This dataset can be downloaded from [OneDrive \(https://1drv.ms/u/s!AmgKYzARBl5ca3HNaHilzp_IXjs\)](https://1drv.ms/u/s!AmgKYzARBl5ca3HNaHilzp_IXjs) or [Baidu Wangpan \(http://pan.baidu.com/s/1mifR6tU\)](http://pan.baidu.com/s/1mifR6tU).

The following figure shows two samples of each class from this dataset.



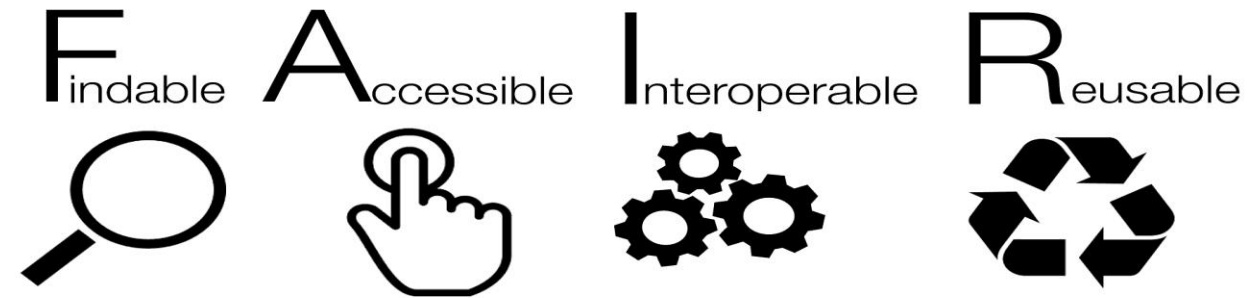
- Da li postoji željeni skup podataka?
- Kako ga pronaći?
- Kojim alatima?
- Mogu li se pronađeni podaci preuzeti?
- U kojem formatu?
- Da li se podaci smiju preuzeti?
- Pod kojim uslovima?
- Koga treba citirati?
- Možemo li automatizovati potrebne aktivnosti?

Kako obezbijediti lakši pristup podacima za ljude i mašine?



- ❑ Smjernice koje olakšavaju:
 - ❑ pronalaženje
 - ❑ pristup,
 - ❑ integraciju,
 - ❑ ponovno korištenje,
 - ❑ citiranje podataka.
- ❑ Mjerljivi principi
- ❑ Kontinuum usklađenosti
- ❑ Ne radi se o standardu

- Findable – omogućeno pronalaženje (vidljivi)
- Accessible – omogućen pristup (dostupni)
- Interoperable – omogućena saradnja (interoperabilni)
- Reusable – omogućeno ponovno korištenje (višekratni)



SangyaPundir / CC BY-SA (<https://creativecommons.org/licenses/by-sa/4.0>)

- ❑ Mogu se primijeniti na sve digitalne istraživačke objekte
 - ❑ rječnike,
 - ❑ algoritme,
 - ❑ alate,
 - ❑ radne tokove...
- ❑ Osigurava se transparentnost, ponovljivost i ponovno korištenje

Moram li dijeliti svoje podatke bez ograničenja?



Moram li dijeliti svoje podatke bez ograničenja?

- ❑ Podaci ne moraju biti otvoreni
 - ❑ Može postojati period embarga
 - ❑ Treba da budu vidljivi – omogućiti pristup metapodacima
 - ❑ Definirati način za dobijanje pristupa podacima
 - ❑ Dodijeliti podacima odgovarajuću licencu
-

Creative Commons licence



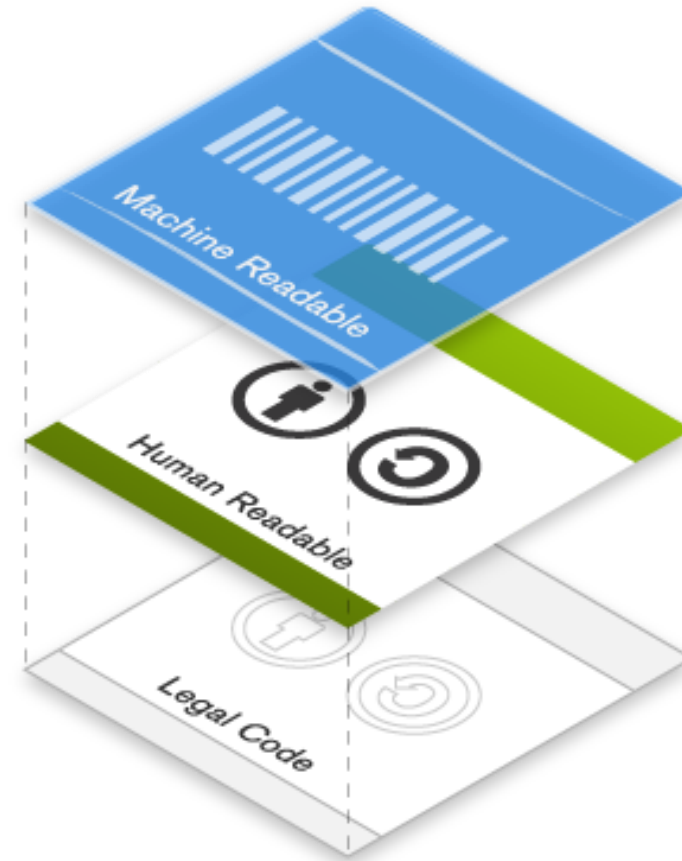
- ❑ Pod određenim uslovima daje korisniku prava da:
 - ❑ koristi,
 - ❑ distribuira materijal.
 - ❑ Primjenjuje se na materijal kod kojeg postoje pravila korištenja:
 - ❑ tekst,
 - ❑ muzika,
 - ❑ slike,
 - ❑ multimedija,
 - ❑ softver...
 - ❑ Proizilazi iz autorskih prava
-

- ❑ Otvorena nauka
- ❑ Omogućiti:
 - ❑ pristup,
 - ❑ ponovno korištenje,
 - ❑ modifikaciju rezultata rada.
- ❑ Otvorene licence/licence slobodnog sadržaja
- ❑ Daju pravo korisniku da preduzme 5R aktivnosti:
 - ❑ Retain – zadrži
 - ❑ Reuse – ponovno koristi
 - ❑ Revise – izmijeni
 - ❑ Remix – kombinuje
 - ❑ Redistribute – dijeli sa drugima

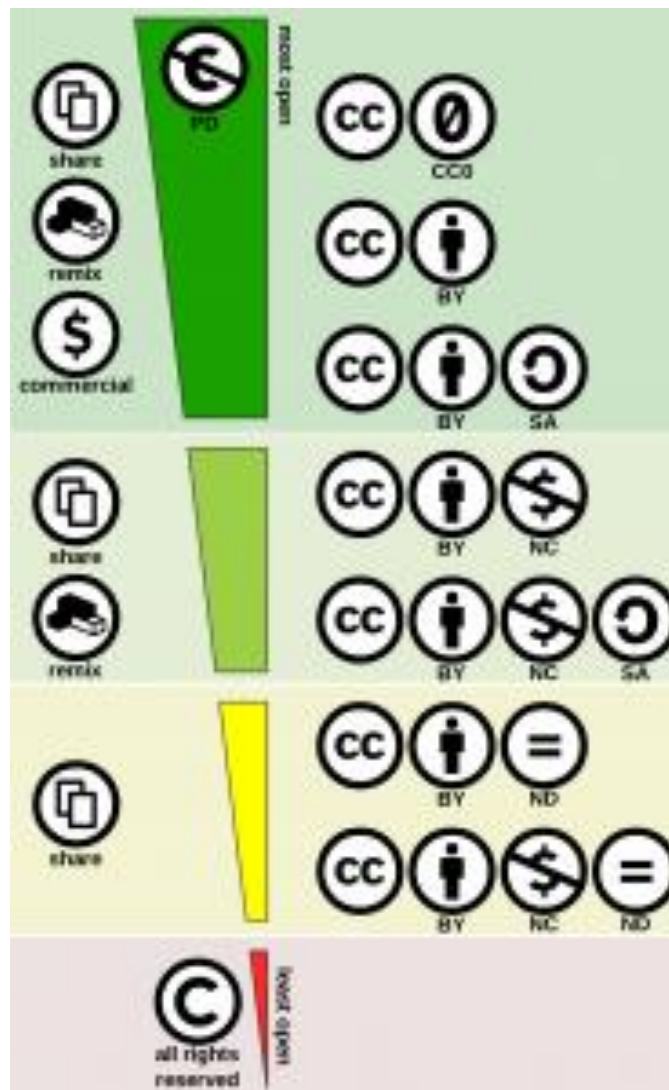




- ❑ Creative Commons (CC)
 - ❑ Međunarodna neprofitna organizacija
 - ❑ Razmjena znanja
- ❑ CC licence
 - ❑ Zadržavanje autorskih prava
 - ❑ Dozvoljavaju:
 - ❑ umnožavanje
 - ❑ distribuciju
 - ❑ preradu djela.
- ❑ Tri sloja licenci
- ❑ Nisu pogodne za softver





Koje CC licence su mi na raspolaganju?



- Onlajn alat za izbor licence
 - <https://creativecommons.org/choose/?jurisdiction=rs>
 - Da li dozvoljavate distribuciju adaptacija Vašeg rada?
 - Da
 - Ne
 - Da, pod istim uslovima
 - Da li dozvoljavate komercijalne upotrebe Vašeg rada?
 - Da
 - Ne
-

- Dva tipa licenci:
 - Vlasničke (proprietary)
 - Uslove korištenja i distribucije propisuje nosilac autorskih prava
 - End-User Licence Agreement (EULA)
 - Moraju biti u skladu sa zakonom
 - Zatvorene licence
 - Slobodni softver i softver otvorenog koda (Free and Open Source – FOSS)
 - Korisnik može da koristi, proučava i mijenja softver bez prihvatanja uslova
 - Uslovi licence određuju distribuciju
 - Spektar mogućnosti prema nivou ograničenja
 - Pomoć pri izboru licence: <https://choosealicense.com/>
-

Neću da izaberem licencu

- ❑ Šta znači odsustvo licence?
 - ❑ Odsustvo prava da se djelo koristi, umnožava, distribuira ili mijenja
 - ❑ Umanjuje se uticaj djela
 - ❑ Javno vlasništvo
 - ❑ Odricanje od autorskih prava CC0 
 - ❑ Oznaka javnog vlasništva (Public Domain Mark) 
-

- Šira i brža diseminacija
 - Povećanje uticaja i vidljivosti istraživanja
 - Promocija novih otkrića i paradigmi
 - Valorizacija znanja i praksi
 - Održivi projekti i inicijative
 - Usklađenost i priprema za preporuke
 - Podaci ne moraju uvijek biti dostupni bez ograničenja
 - Važno je izabrati odgovarajuću licencu za djelo/podatke/softver
-

❑ Otvorena nauka

- ❑ Preporuka Komisije (EU) 2018/790 o pristupu i čuvanju naučnih informacija, <http://www.open.ac.rs/docs/Preporuka-EU-2018-790.pdf>

❑ Infrastruktura/Servisi

- ❑ OpenAIRE, <https://www.openaire.eu/>
- ❑ EOSC, <https://www.eosc-portal.eu/>
- ❑ EUDAT, <https://www.eudat.eu/>
- ❑ RDA, <https://www.rd-alliance.org/>

❑ FAIR principi

- ❑ Wilkinson, M., Dumontier, M., Aalbersberg, I. *et al.* The FAIR Guiding Principles for scientific data management and stewardship. *Sci Data* **3**, 160018 (2016). <https://doi.org/10.1038/sdata.2016.18>
- ❑ Guidelines on FAIR Data Management in Horizon 2020, https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

- <https://www.go-fair.org/>
 - Inicijativa čiji je cilj implementacija FAIR principa
- <https://www.fairsfair.eu/>
 - Projekat čiji su cilj praktična rješenja za korištenje FAIR principa u životnom ciklusu istraživačkih podataka
- <https://fairsharing.org/>
 - Informativni i edukativni resurs o standardima za podatke i metapodatke, bazama podataka i politikama

❑ Procjena koliko su podaci FAIR

- ❑ Jones, Sarah, & Grootveld, Marjan. (2017, November). How FAIR are your data?. Zenodo. <http://doi.org/10.5281/zenodo.1065991>
- ❑ <https://www.surveymonkey.com/r/fairdat>
- ❑ <https://satisfyd.dans.knaw.nl/>

❑ Otvorene licence

- ❑ Creative Commons Srbije, <http://creativecommons.org.rs/>
- ❑ Choose an open source license, <https://choosealicense.com/>

❑ Iskustva iz Srbije

- ❑ Nacionalni portal otvorene nauke, <http://www.open.ac.rs>
- ❑ Platforma za otvorenu nauku, <http://www.mpn.gov.rs/wp-content/uploads/2018/07/Platforma-za-otvorenu-nauku.pdf>

