

# Работа со складишта за отворени податочни множества

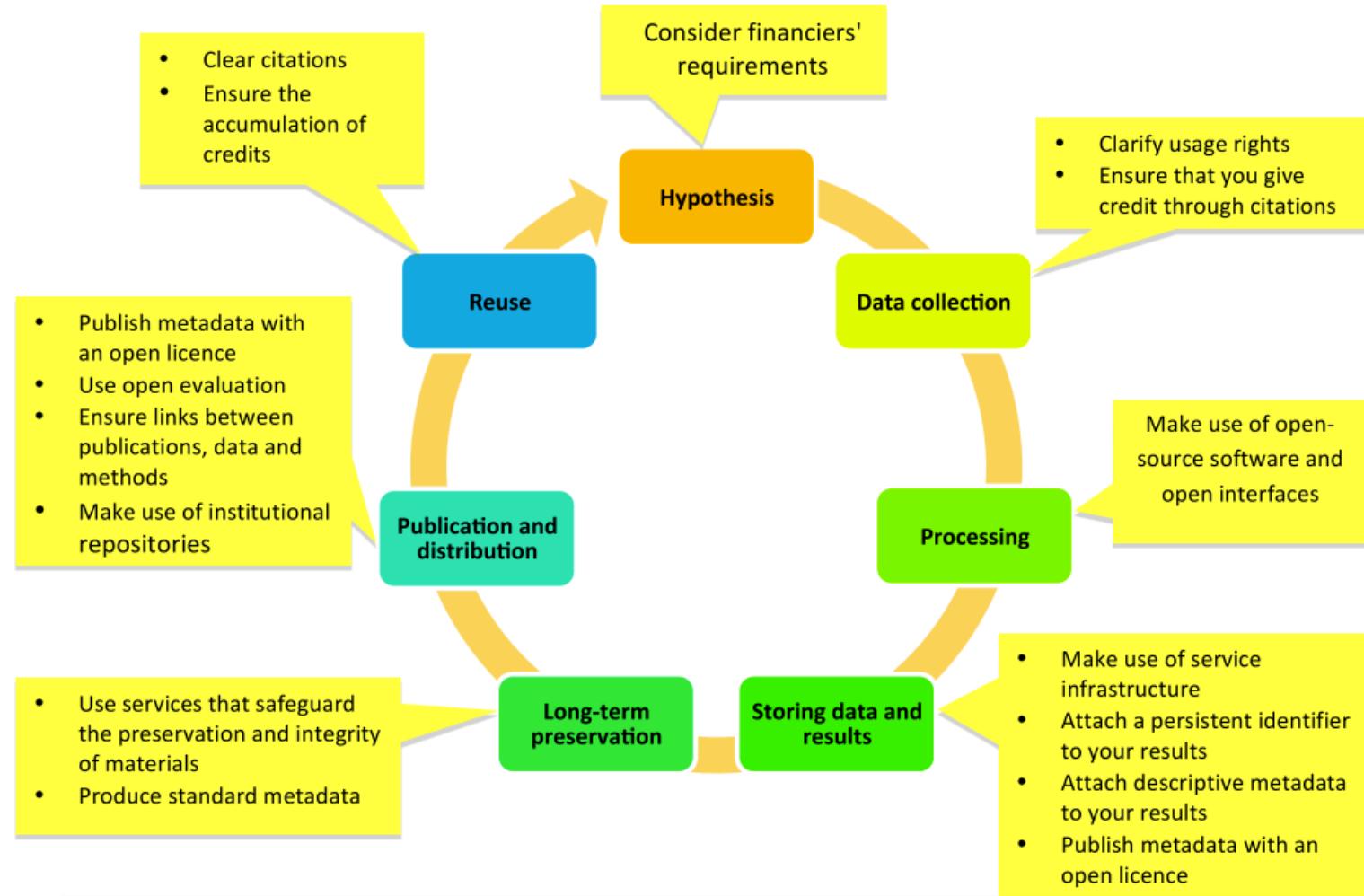
Capacity Building Training  
Skopje, 15.10.2021

Anastas Mishev, UKIM



- ❑ Основи принципи на отворената наука
- ❑ Складишта на отворени податочни множества како основа за проверлива и повторлива наука
- ❑ Типови на складишта на податоци
- ❑ Примери на складишта на отворени податочни множества
- ❑ Податочно складиште на репозиториумот на УКИМ
  - ❑ Практичен пример за поставување на податочно множество
- ❑ Иднината на научните публикации
- ❑ Референци

# Основни принципи на отворена наука



<https://www.fosteropenscience.eu/sites/default/files/pdf/3986.pdf>

# Складишта на податочни множества

- ❑ Складишта на отворени податочни множества се клучни за проверлива и повторлива наука
- ❑ Складиште на податоци или податочни множества е генерички термин кој означува архива во која се зачувани податоци за анализа, дистрибуција или известување
- ❑ Можат да бидат во строго тесна научна област или мултидисциплинарни
- ❑ Квалитет на податоците
  - ❑ Начини на проверка на квалитетот
- ❑ Опис на податоците
  - ❑ клучен за нивно повторно искористување
  - ❑ “data curation”
- ❑ Неопходен чекор кај одредени издавачи
  - ❑ Препорачан или овозможен кај други

“ - Researchers, on the whole, do not do replication tests as part of their own work, or even as part of the peer review process. In the future, they may be incentives for researchers to do so, and post-publication crowd-sourced peer review in the mold of Wikipedia, as promoted by Edward Curry, may prove to be a successful model.

“ - Academic institutions, and their libraries, are increasingly involved in the data management process, but are not involved in replication as a matter of course (note some calls for libraries to take a more active role in this regard).

# Типови на складишта на податоци

- ❑ Складиштата на податоци, уште наречени и податочни библиотеки или податочни архиви, можат да бидат од различен тип
- ❑ Data warehouse – големи складишта кои најчесто складираат податоци од различни извори или сегменти, каде податоците можат да бидат и неповрзани меѓусебно.
- ❑ Data lake – големи складишта на неструктурирани податоци описани со соодветни мета-податоци
- ❑ Data marts – подмножества од data warehouse кои содржат податоци релевантни за одредена област
- ❑ Складишта на мета податоци - содржат информации за модели на податоци, описи на изворите, значење на податоците итн.
- ❑ Data cubes – повеќедимензионални податоци складирани во табели, најчесто содржат временски секвенци од податоци.

# European data lakes

## Projected figures 2025



**530%**  
increase of global  
data volume  
From 33 zettabytes  
in 2018 to 175  
zettabytes



**€829  
billion**  
value of data  
economy in the  
EU27  
From €301 billion  
(2.4% of EU GDP)  
in 2018



**10.9  
million**  
data  
professionals in  
the EU27  
From 5.7 million in  
2018



**65%**  
Percentage of EU  
population with  
basic digital skills  
From 57% in 2018

# Примери за складища на податоци

## General repositories

- [4TU.ResearchData](#)
- [ANDS contributing repositories](#)
- [Dryad Digital Repository](#)
- [Figshare](#)
- [Harvard Dataverse](#)
- [Mendeley Data](#)
- [Open Science Framework](#)
- [Science Data Bank](#)
- [Zenodo](#)
- [Code Ocean](#)

## Biomedical Sciences

- [Eukaryotic Pathogen Database Resources \(EuPathDB\)](#)
- [Influenza Research Database \(IRD\)](#)
- [The Cancer Imaging Archive \(TCIA\)](#)

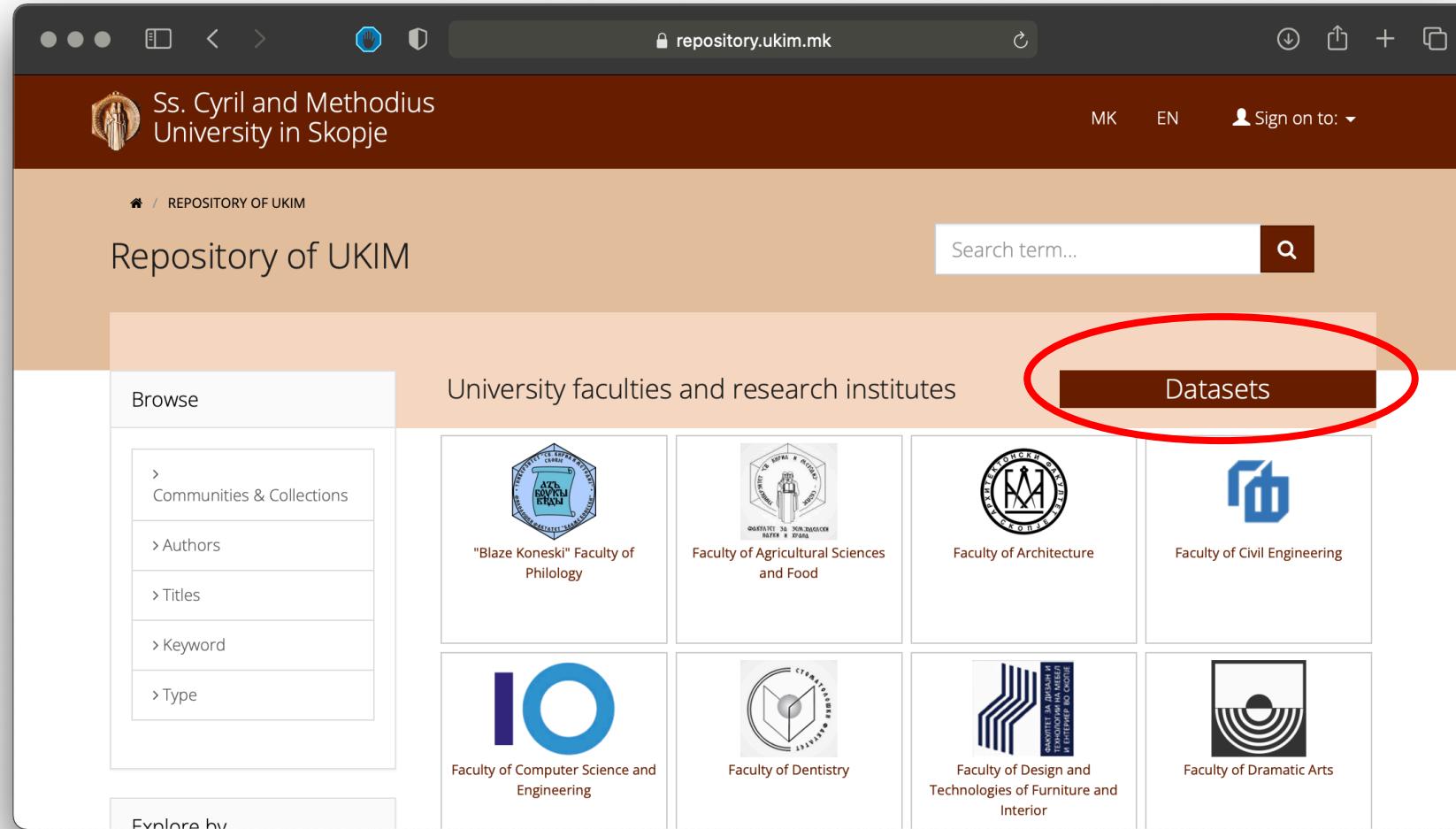
## Sequencing

- [dbSNP](#)
- [dbVar](#)
- [Database of Genomic Variants archive \(DGVa\)](#)
- [DNA DataBank of Japan \(DDBJ\)](#)
- [European Nucleotide Archive \(ENA\)](#)
- [GenBank](#)
- [MGnify](#)
- [miRBase](#)
- [NCBI Sequence Read Archive \(SRA\)](#)
- [NCBI Trace Archives](#)
- [UniProt](#)

## Taxonomic and Species Diversity

- [Global Biodiversity Information Facility \(GBIF\)](#)
- [Mycobank](#)
- [NCBI Taxonomy](#)
- [Integrated Taxonomic Information System \(ITIS\)](#)

# Податочно складиште на репозиториумот на УКИМ



The screenshot shows the homepage of the Repository of Ss. Cyril and Methodius University in Skopje. The top navigation bar includes links for MK, EN, and sign-on options. A search bar is located at the top right. On the left, there's a sidebar titled 'Browse' with links for Communities & Collections, Authors, Titles, Keyword, and Type. The main content area features a grid of university faculties and research institutes, each with a logo and name. A red circle highlights the 'Datasets' button in the top right corner of the grid.

Ss. Cyril and Methodius University in Skopje

MK EN Sign on to: ▾

REPOSITORY OF UKIM

Repository of UKIM

Search term... 

Browse

> Communities & Collections

> Authors

> Titles

> Keyword

> Type

Explore by

University faculties and research institutes

"Blaze Koneski" Faculty of Philology

Faculty of Agricultural Sciences and Food

Faculty of Architecture

Faculty of Civil Engineering

Faculty of Computer Science and Engineering

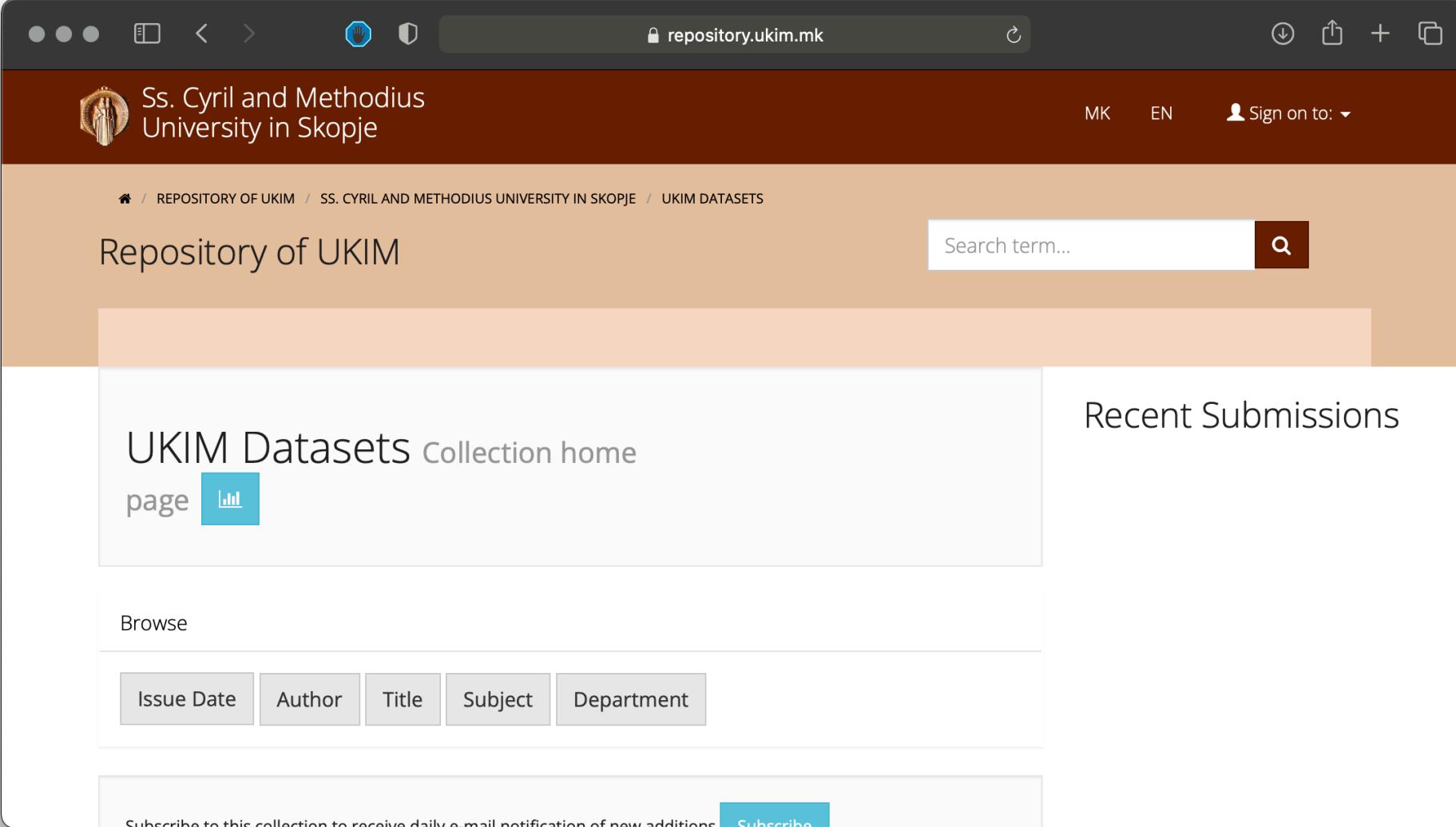
Faculty of Dentistry

Faculty of Design and Technologies of Furniture and Interior

Faculty of Dramatic Arts

Datasets

# Преглед на тековни записи



The screenshot shows the homepage of the Repository of the Ss. Cyril and Methodius University in Skopje. The header includes the university's logo, navigation icons, and language links (MK, EN). A search bar is prominently displayed. The main content area features a "Recent Submissions" section and a "UKIM Datasets Collection home" section with a "page" button. Below these are browse filters for Issue Date, Author, Title, Subject, and Department. A footer section allows users to subscribe to receive notifications.

Ss. Cyril and Methodius  
University in Skopje

repository.ukim.mk

MK EN Sign on to:

REPOSITORY OF UKIM / SS. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE / UKIM DATASETS

Repository of UKIM

Search term...

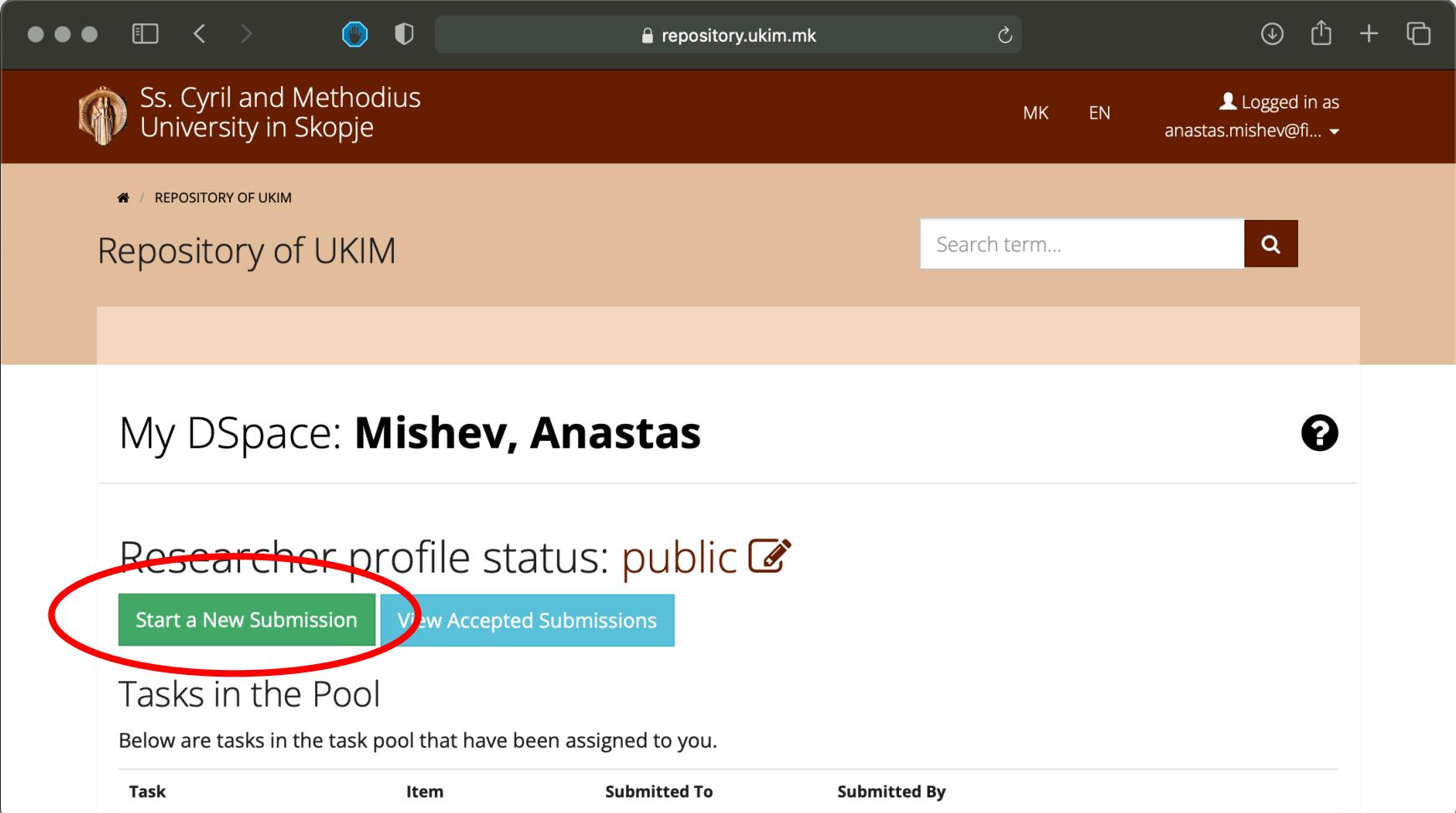
UKIM Datasets Collection home

Recent Submissions

Browse

Issue Date Author Title Subject Department

Subscribe to this collection to receive daily e-mail notification of new additions.



The screenshot shows a web browser window for the Repository of UKIM ([repository.ukim.mk](https://repository.ukim.mk)). The page is titled "Repository of UKIM" and features a search bar with the placeholder "Search term...". A red circle highlights the "Start a New Submission" button, which is green with white text. Below the search bar, the text "Researcher profile status: public" is displayed next to a pencil icon. The main content area is titled "My DSpace: Mishev, Anastas" and includes sections for "Tasks in the Pool" and a table for managing submissions.

Ss. Cyril and Methodius University in Skopje

MK EN Logged in as anastas.mishev@fi...

REPOSITORY OF UKIM

Repository of UKIM

Search term...

My DSpace: **Mishev, Anastas**

Researcher profile status: public

Start a New Submission

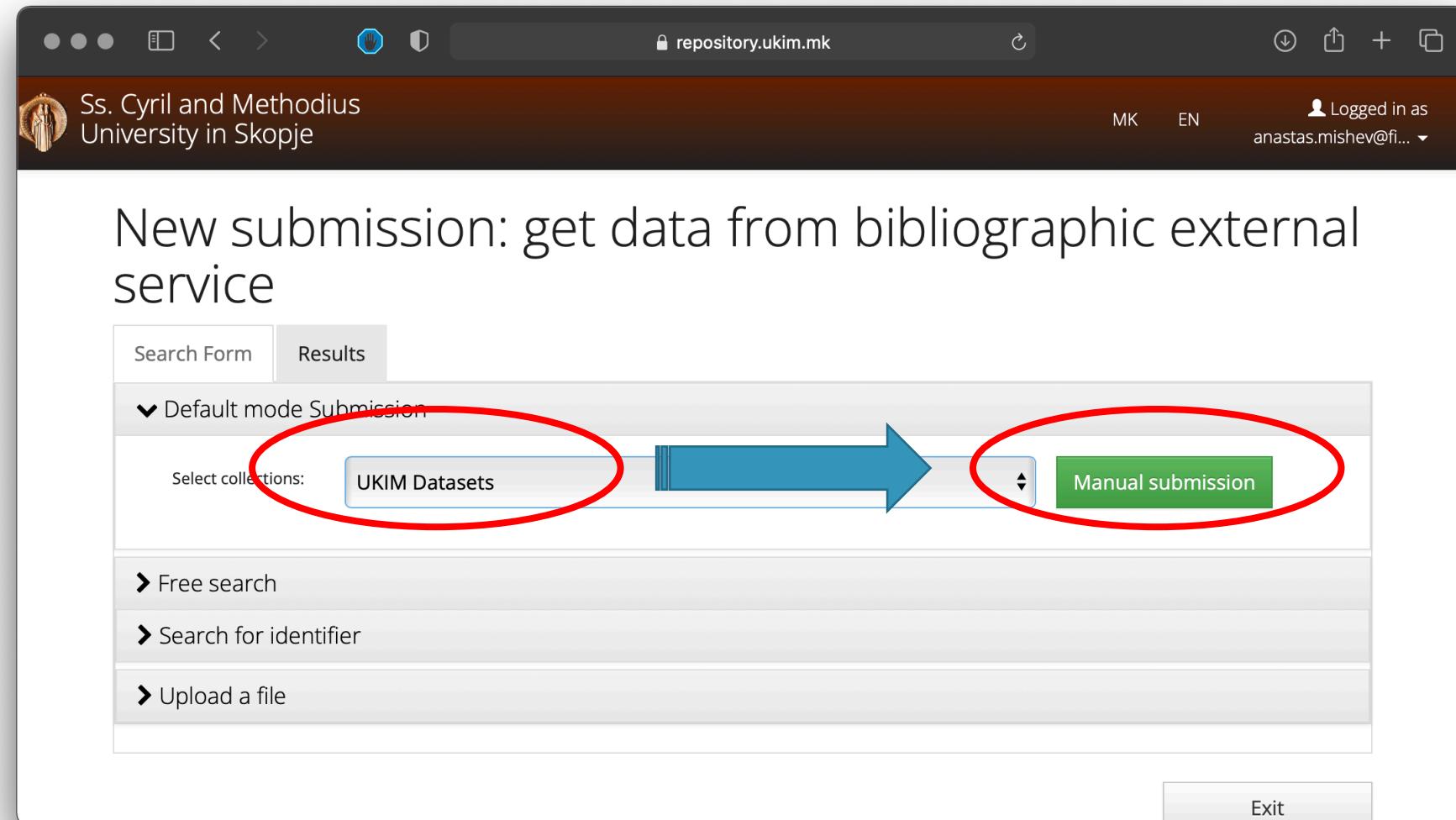
View Accepted Submissions

Tasks in the Pool

Below are tasks in the task pool that have been assigned to you.

Task	Item	Submitted To	Submitted By
------	------	--------------	--------------

# Избор на тип и рачен внес



# Внесување автори и опис

Please fill in the requested information about this submission below. In most browsers, you can use the tab key to move the cursor to the next input box or button, to save you having to use the mouse each time.

Enter the names of the authors of this item in the form Surname, Firstname [i.e. Smith, Josh or Smith, J].

Authors

Filiposka, Sonja	<input checked="" type="checkbox"/> 
Mishev, Anastas	<input checked="" type="checkbox"/> 
Gilly, Katja	<input type="checkbox"/> 

[Remove Entr](#)

[+ Add More](#)

Enter the main title of the item.

Title \*

If the item has any alternative titles, please enter them here.

Other Titles

[+ Add More](#)

Please give the date of previous publication or public distribution. You can leave out the day and/or month if they aren't applicable.

Date of Issue \*

Month:	април
Day:	
Year:	2018

# Поврзување со труд

resource management

node mobility

Enter the name of any sponsors.

Sponsors

repository.ukim.mk

### Authority Publication Lookup

Results 1 to 19 of 19 for "Community-based allocation and migration strategies for fog co

1.	<a href="#">Community-based allocation and migration strategies for fog computing(20.500.12188/4024)</a> Offloading Edge Vehicular Services in Realistic Urban Environments(20.500.12188/14047) Proceedings of the 17th International Conference for Informatics and Information Technology - CIIT Strengthening public health services: evaluation of essential public health operations.(20.500.12188/13243) Second national communication on climate change(20.500.12188/13243) PHYSICAL CAPITAL INVESTMENTS AND LABOUR PRODUCTIVITY ACROSS COUNTRIES – PANEL ANALYSIS THE POLITICAL SCIENCE IN THE REPUBLIC OF MACEDONIA: CHALLENGES AND PERSPECTIVES(20.500.12188/13243) Volume correlation of bladder, rectum and intestines in gynecological pelvis radiotherapy(20.500.12188/13243) Proceedings of the 1st international scientific conference "Economic and Business Trends Shaping the Future of the Region" Study of gonadosomatic index of Salmo ohridanus Steindachner from Ohrid Lake(20.500.12188/7102) SINGLE INSTITUTION EXPERIENCE OF TWO-DIMENSIONAL VERSUS TRI-DIMENSIONAL INTRACAVITY ISLAMIC FINANCE TOOLS AS AN ALTERNATIVE TO PREVENT FUTURE GLOBAL CRISES(20.500.12188/13243)
2.	<a href="#">Community-based allocation and migration strategies for fog computing(20.500.12188/4024)</a> Publication Title
3.	<a href="#">Community-based allocation and migration strategies for fog computing(20.500.12188/4024)</a> Publication Title

Accept   See More Results   Cancel

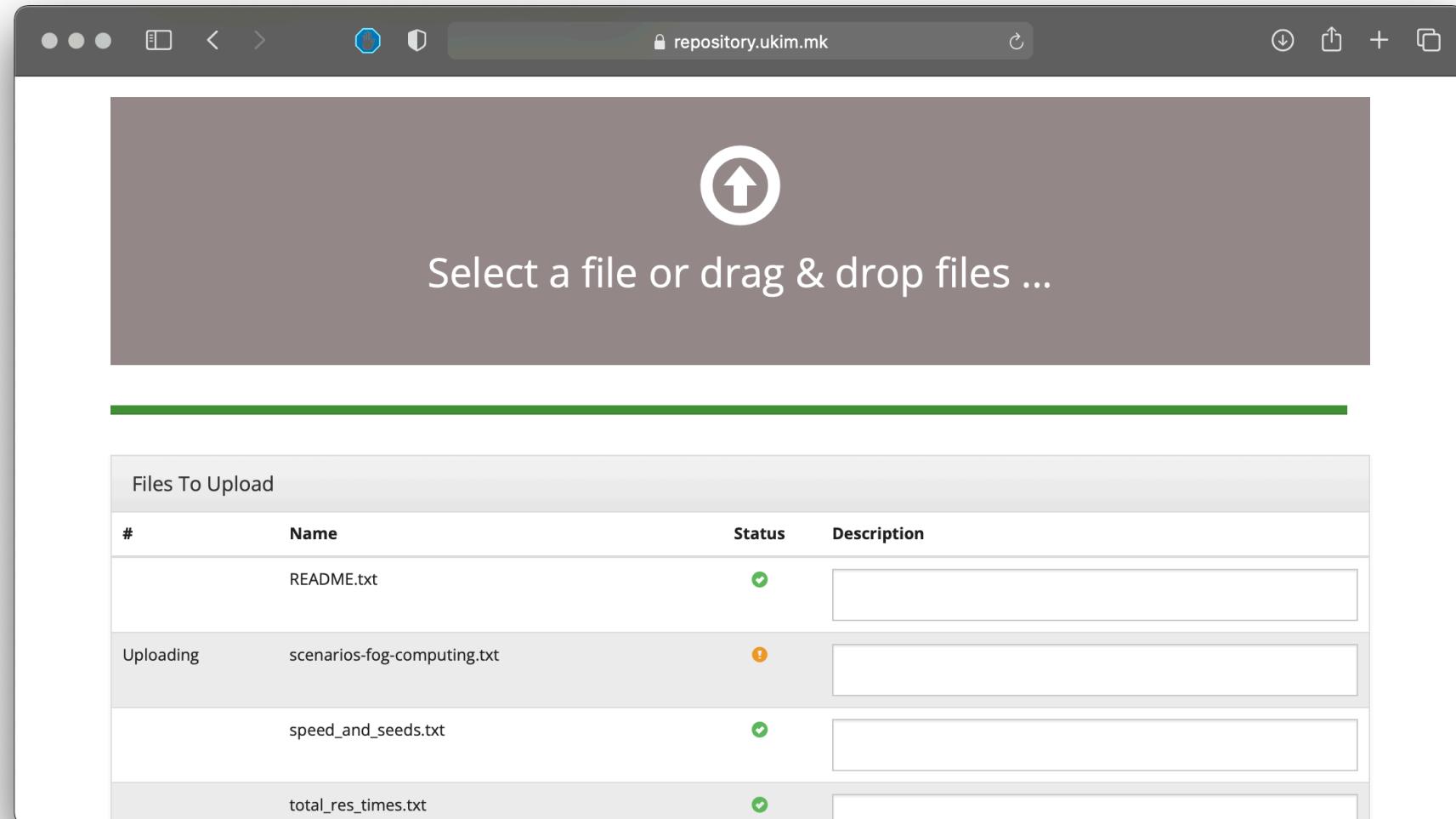
Link the dataset to one or more existent publications in the repository that make use of it or, put here the publication citation.

Publication

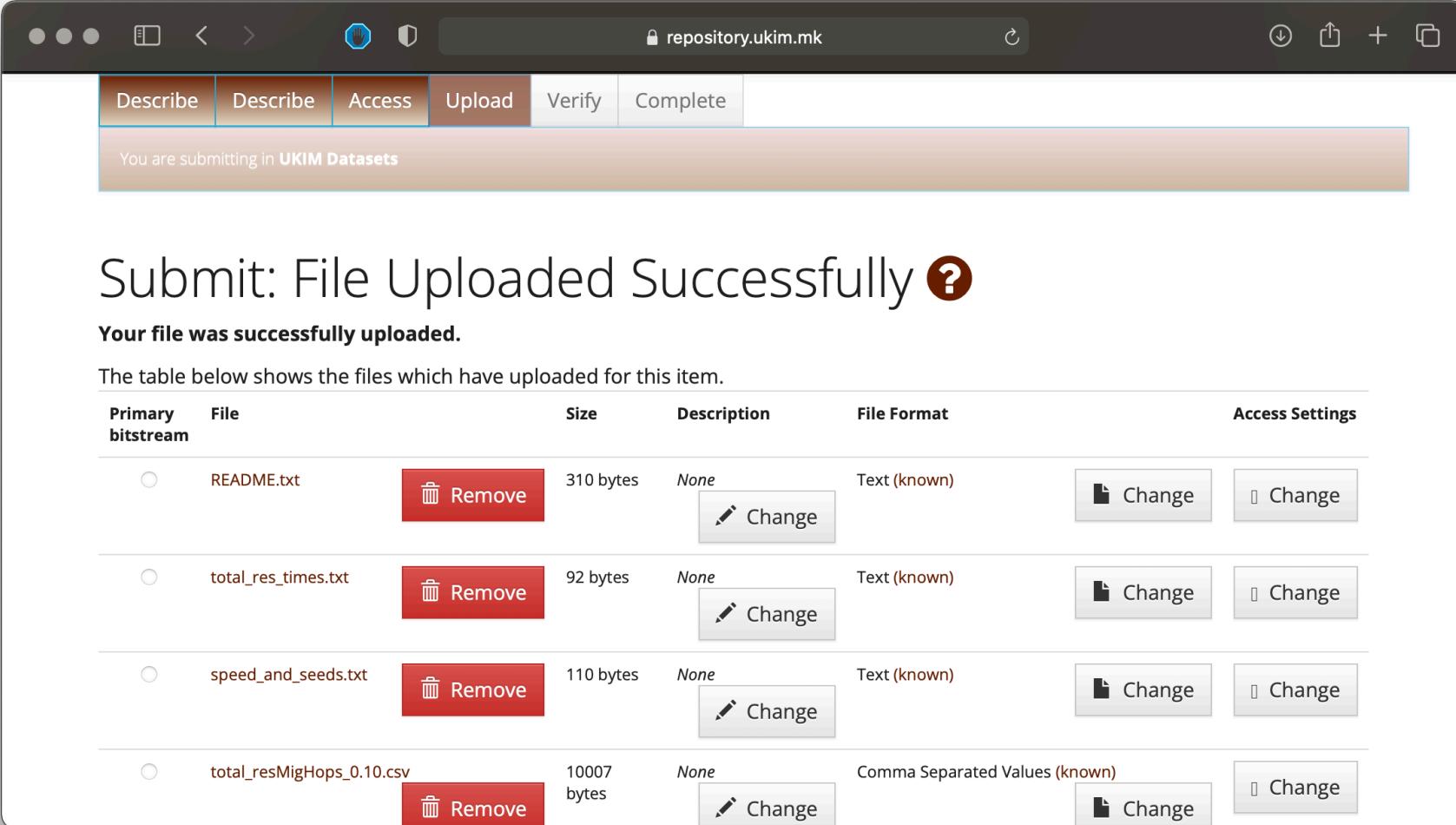
Enter any other description or comments in this box.

Description

# Поставување на датотеки

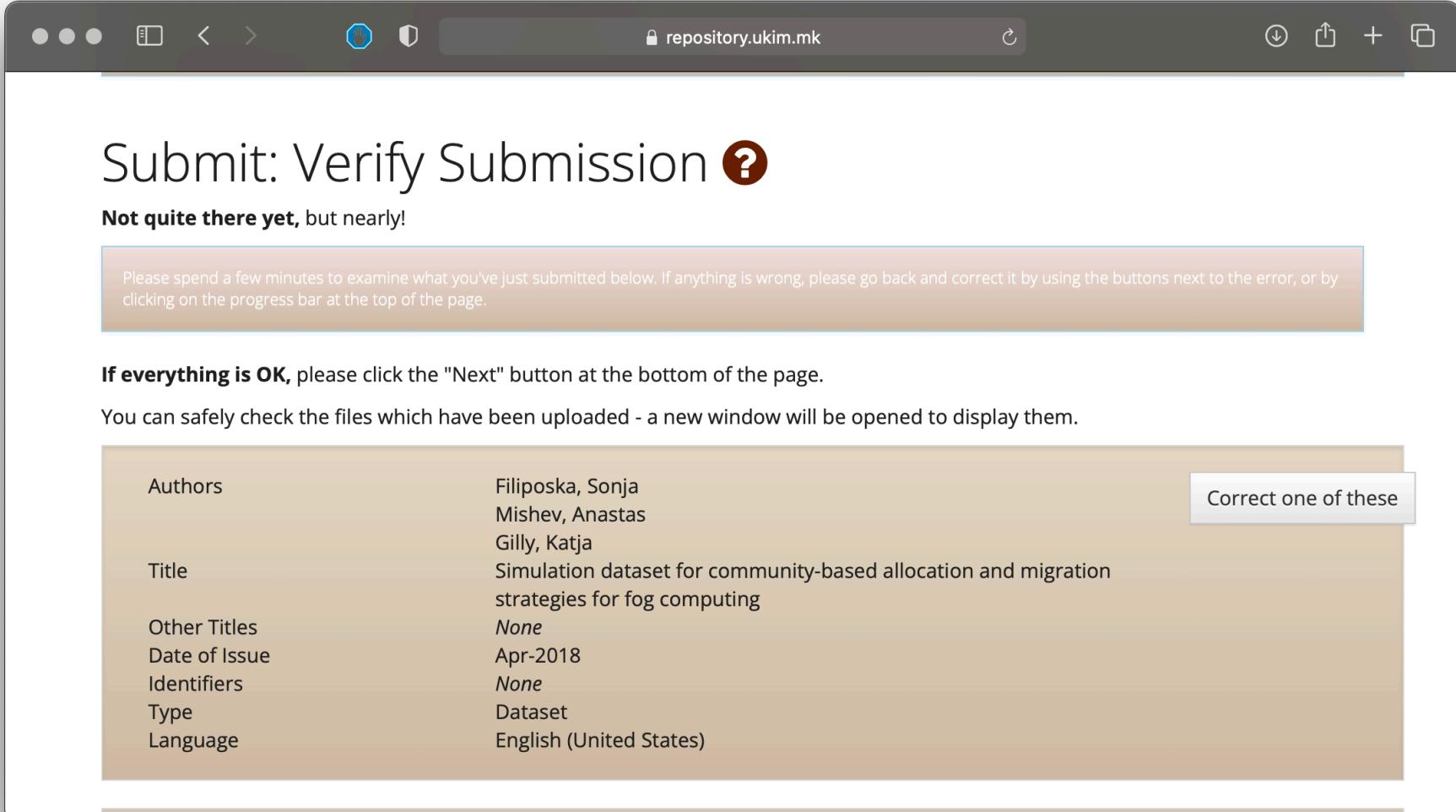


# Преглед на датотеки



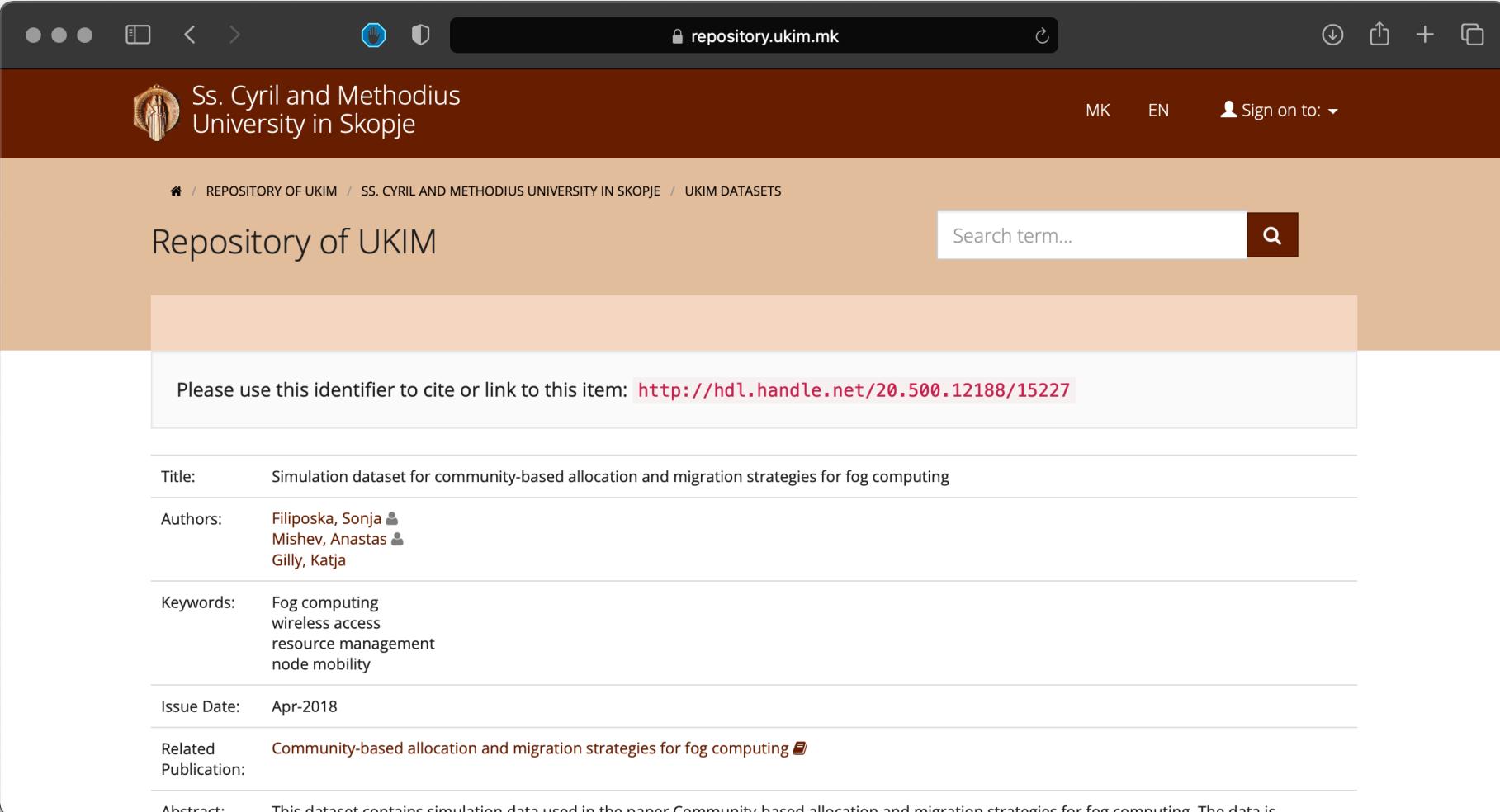
The screenshot shows a web browser window with the URL [repository.ukim.mk](https://repository.ukim.mk). The top navigation bar includes tabs for **Describe**, **Access**, **Upload** (which is highlighted in blue), **Verify**, and **Complete**. A message bar at the top states: "You are submitting in **UKIM Datasets**". The main content area displays a success message: "Submit: File Uploaded Successfully ?". Below this, a sub-header says "Your file was successfully uploaded." A table lists four uploaded files:

Primary bitstream	File	Size	Description	File Format	Access Settings
<input type="radio"/>	README.txt	310 bytes	None	Text (known)	Change  Remove
<input type="radio"/>	total_res_times.txt	92 bytes	None	Text (known)	Change  Remove
<input type="radio"/>	speed_and_seeds.txt	110 bytes	None	Text (known)	Change  Remove
<input type="radio"/>	total_resMigHops_0.10.csv	10007 bytes	None	Comma Separated Values (known)	Change  Remove



The screenshot shows a web browser window with the URL `repository.ukim.mk` in the address bar. The main content is titled "Submit: Verify Submission" with a question mark icon. A message below says "Not quite there yet, but nearly!" followed by a note: "Please spend a few minutes to examine what you've just submitted below. If anything is wrong, please go back and correct it by using the buttons next to the error, or by clicking on the progress bar at the top of the page." A callout box points to the right side of the submission details table with the text "Correct one of these".

Authors	Filiposka, Sonja Mishev, Anastas Gilly, Katja
Title	Simulation dataset for community-based allocation and migration strategies for fog computing
Other Titles	<i>None</i>
Date of Issue	Apr-2018
Identifiers	<i>None</i>
Type	Dataset
Language	English (United States)



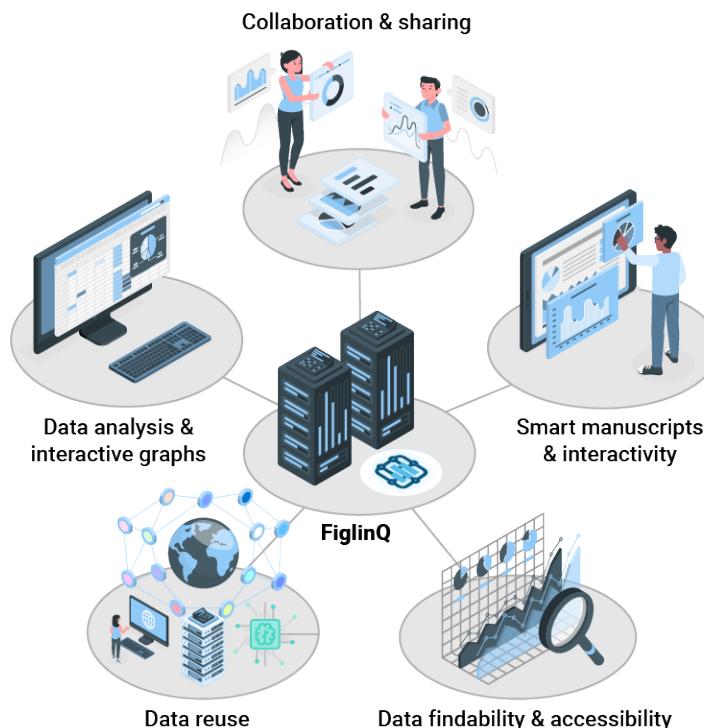
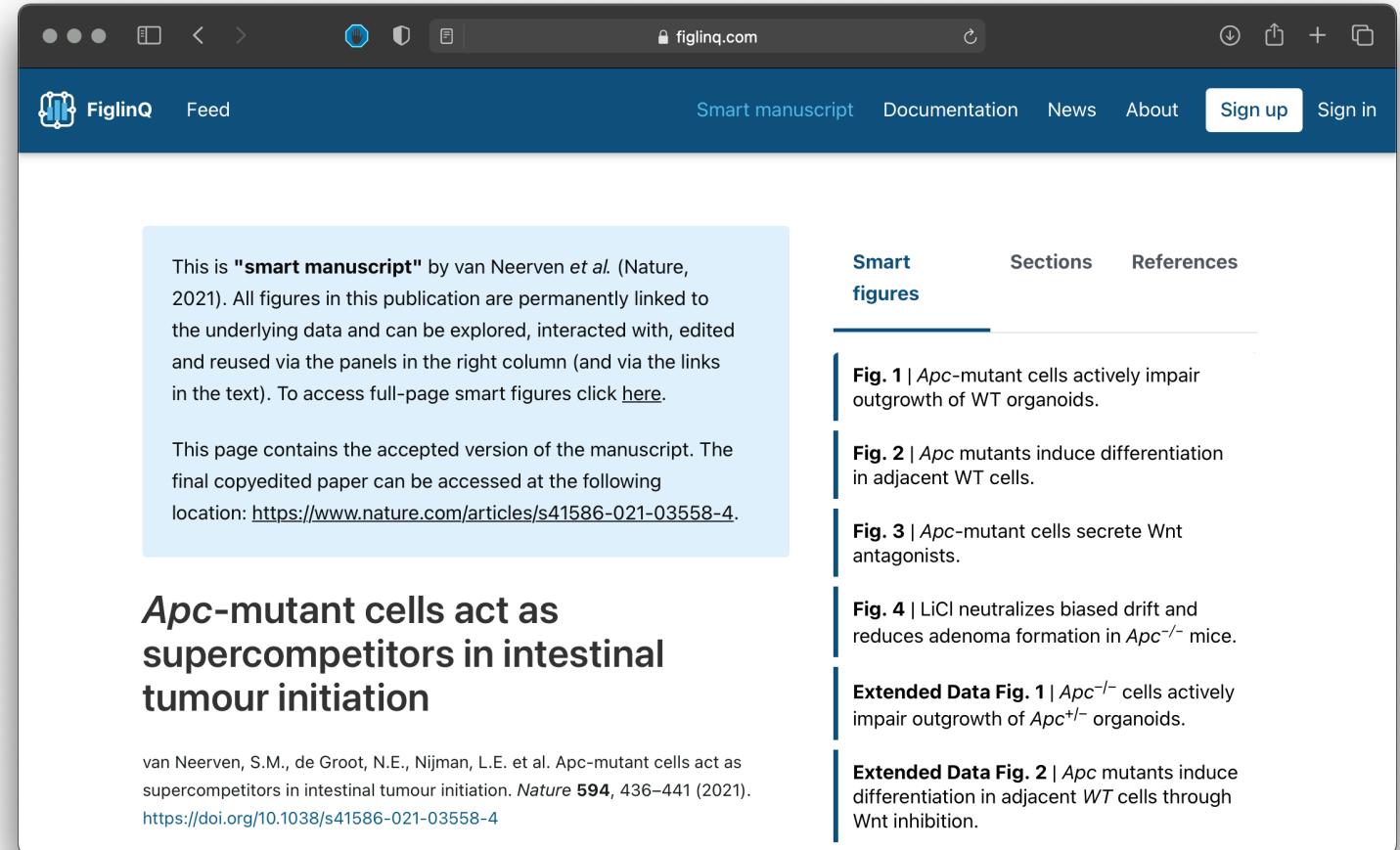
The screenshot shows a web browser window displaying the Repository of Ss. Cyril and Methodius University in Skopje. The URL in the address bar is `repository.ukim.mk`. The page title is "Repository of UKIM". The navigation menu includes links for "MK" and "EN" and a "Sign on to:" dropdown. The breadcrumb navigation shows the path: Home / REPOSITORY OF UKIM / SS. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE / UKIM DATASETS. A search bar at the top right contains the placeholder "Search term...". The main content area displays a dataset record:

Please use this identifier to cite or link to this item: <http://hdl.handle.net/20.500.12188/15227>

Title:	Simulation dataset for community-based allocation and migration strategies for fog computing
Authors:	Filiposka, Sonja Mishev, Anastas Gilly, Katja
Keywords:	Fog computing wireless access resource management node mobility
Issue Date:	Apr-2018
Related Publication:	Community-based allocation and migration strategies for fog computing <a href="#">[link]</a>
Abstract:	This dataset contains simulation data used in the paper Community-based allocation and migration strategies for fog computing. The data is

# Иднина на научните публикации

<https://figlinq.com/smart>

This is "smart manuscript" by van Neerven et al. (Nature, 2021). All figures in this publication are permanently linked to the underlying data and can be explored, interacted with, edited and reused via the panels in the right column (and via the links in the text). To access full-page smart figures click [here](#).

This page contains the accepted version of the manuscript. The final copyedited paper can be accessed at the following location: <https://www.nature.com/articles/s41586-021-03558-4>.

## Apc-mutant cells act as supercompetitors in intestinal tumour initiation

van Neerven, S.M., de Groot, N.E., Nijman, L.E. et al. Apc-mutant cells act as supercompetitors in intestinal tumour initiation. *Nature* **594**, 436–441 (2021). <https://doi.org/10.1038/s41586-021-03558-4>

Smart figures
Sections
References

**Fig. 1** | Apc-mutant cells actively impair outgrowth of WT organoids.

**Fig. 2** | Apc mutants induce differentiation in adjacent WT cells.

**Fig. 3** | Apc-mutant cells secrete Wnt antagonists.

**Fig. 4** | LiCl neutralizes biased drift and reduces adenoma formation in *Apc*<sup>-/-</sup> mice.

**Extended Data Fig. 1** | *Apc*<sup>-/-</sup> cells actively impair outgrowth of *Apc*<sup>+/-</sup> organoids.

**Extended Data Fig. 2** | Apc mutants induce differentiation in adjacent WT cells through Wnt inhibition.

# Референци

- <https://repository.ukim.mk/handle/20.500.12188/11971>
- <https://figlinq.com/smart>
- <https://isps.yale.edu/news/blog/2013/07/the-role-of-data-repositories-in-reproducible-research>
- <https://digitalguardian.com/blog/what-data-repository>
- <https://www.astera.com/type/blog/data-repository/>
- <https://authorservices.taylorandfrancis.com/data-sharing/share-your-data/repositories/>
- <https://stealthbits.com/blog/what-is-a-data-repository-and-what-is-it-used-for/>
- <https://journals.asm.org/list-data-repositories>
- <https://www.nature.com/sdata/policies/repositories>
- [https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy_en)
- [https://like-itn-digitalization.readthedocs.io/en/latest/2\\_open\\_science/](https://like-itn-digitalization.readthedocs.io/en/latest/2_open_science/)

Благодарам!

