



#### Introduction

- Open Science helps to increase the transparency and rigor of scientific research.
- In Malaysia, the Open Science movement has already been initiated among academic institutions, but the current state of the movement remains vague.
- Unclear situation on to what extent the library has progressed towards Open Science. In connecting the dots, we need to know what we have done and can do soon in supporting open science.
- This paper offers steps in promoting open science in academic libraries to assist the institutions in cultivating a more open research culture. Also striving towards fulfilling almost all principles of open science practices.



### What is Open Science?

Open Science means the can be made shared and available to everyone to access, use and share with certain conditions, depending on the types of data.

It demands science, which includes pure science and social science, to be done with integrity that assures accuracy of research data, in an open, reliable and reproducible fashion.



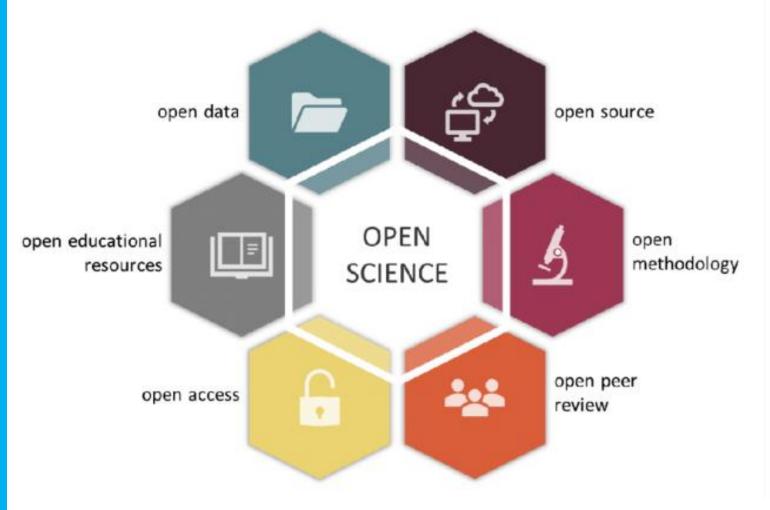
## What is Open Science?

For Open Science, data sharing is guided by the FAIR principle. FAIR stands for Findable, Accessible, Interoperable and Reusable. Specifically, FAIR is described as:

- a. Findable Data and metadata are easily to find by both humans and computers. Usually this task is enabled by machine-readable persistent identifiers and metadata
- b. Accessible Data can be retrieved using the outlined protocols
- c. Interoperable System can be used with other tools
- d. Reusable Data is well-defined and can be used for different purposes and in different settings

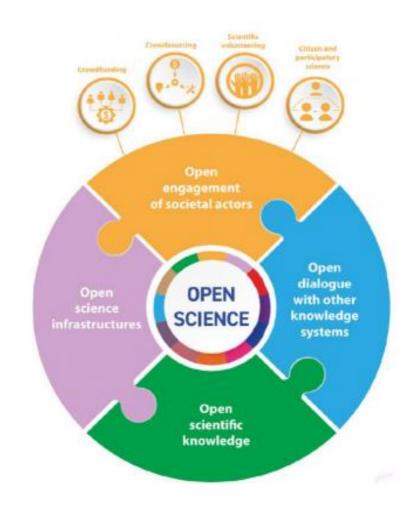


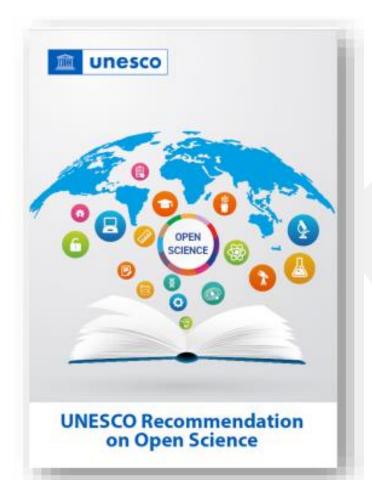
## Principles of Open Science





## Open Science & Open Data







# Among UiTM Libraries Initiatives towards Open Science

- Open educational resources
- Opening access to research publications
- Research data sharing

#### **Open Educational Resources**







#### Massive Open Online Courses **UiTM Library**

Search courses

Log in



















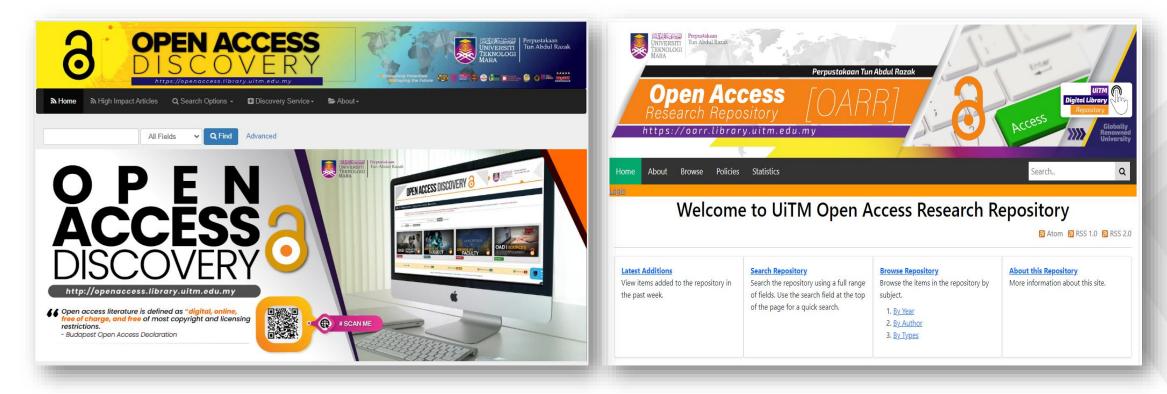




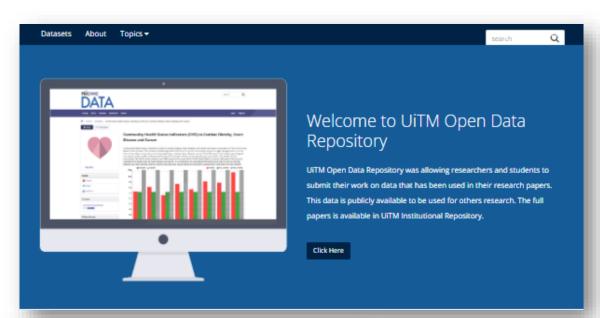


#### **Opening Access to Research Publications**



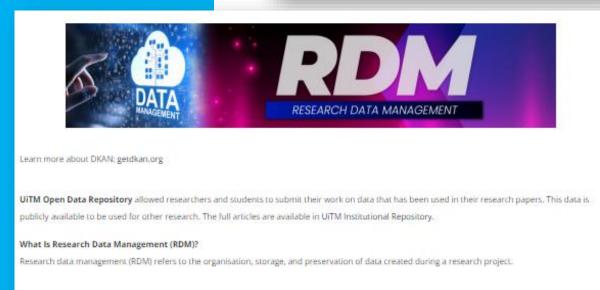


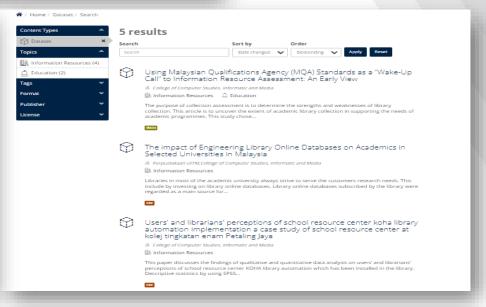
Open access literature is defined as "digital, online, free of charge, and free of most copyright and licensing restrictions." The recommendations of the <u>Budapest Open Access Declaration</u> —including the use of liberal licensing (such as CC BY)— is widely recognized in the community as a means to make a work truly open access.





## Research Data Sharing





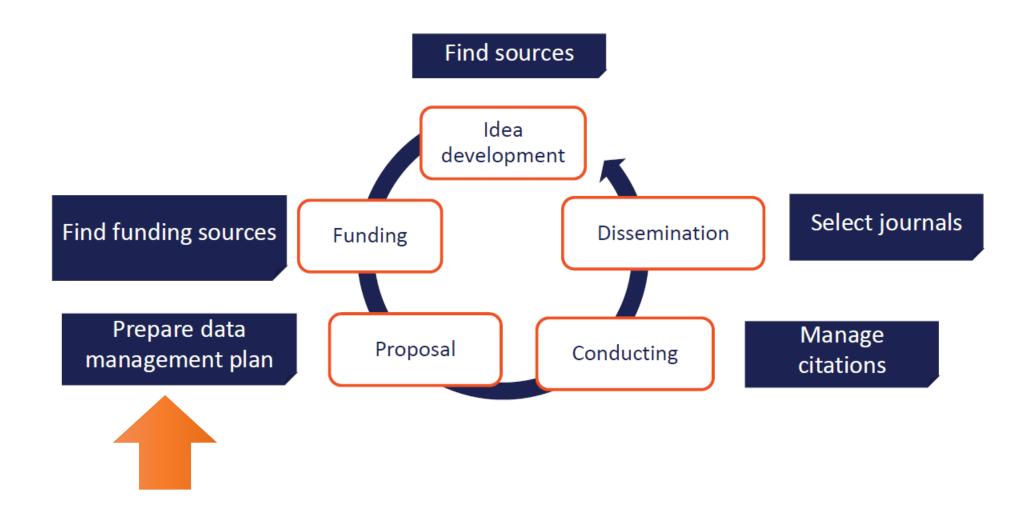


# Suggestion for next steps?

- Research Data Management
- Data Literacy
- Citizen Science

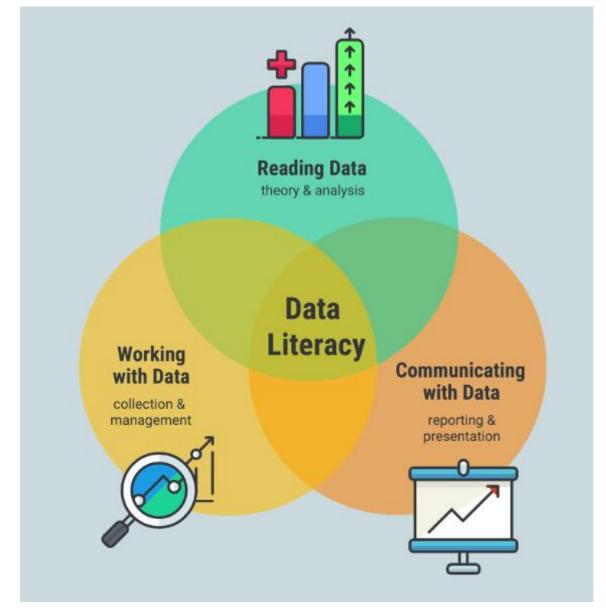
#### Suggestion for next steps: Research Data Management







Suggestion for next steps: Data Literacy



Suggestion for next steps: Citizen Science











#### The Contribution of Open Science to SDGs



#### **5P Principles**

End poverty and hunger, and ensure dignity and equality. and in a healthy environment.











Social

SECTOR

PROSPERITY

Ensure prosperous and fulfilling lives in harmony with nature









Economic

PLANET

PEOPLE

Protect the planet and natural resources and climate











Environment

PEACE

Foster peaceful and inclusive society



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PARTNERSHIP

Implement the agenda through a global partnership Fostering peace and partnerships



