

Challenges of Developing Open Science Communities and Resources in the Middle East

Planting the seeds of Open Science in the MENA region





The Turing Way project illustration by Scriberia. Used under a CC-BY 4.0 licence. DOI: 10.5281/zenodo.3332807

By Batool Almarzouq (She/her) Computational Biologist @batool664



There is NO existence for Open Science Communities, resources or any type of OS infrastructure in the Middle East.

@OpenSciSaudi, @batool664





The research systems is relatively **new** in Middle East, which makes it easier to incorporate OS principles rather than shifting and shaping established systems.

From article by Sandersan Onie titled "Redesign open science for Asia, Africa and Latin America" DOI: https://doi.org/10.1038/d41586-020-03052-3









Motivation:

Saudi Arabia's Vision 2030

focuses on installing values, enhancing knowledge and improving equal access to education.

> VISION 1_9 2 30 المملكة العربية السعودية кілядом оғ saudi arabia





We initiated OS Communities to address this need..



The Turing Way project illustration by Scriberia. Used under a CC-BY 4.0 licence. DOI: 10.5281/zenodo.4906004









R-Ladies is an organization that promotes gender diversity in the community of users of the R statistical programming language. It is made up of local chapters affiliated with the worldwide coordinating organization R-Ladies Global

There is **few** useR groups/R-Ladies in the MENA region.

There is **low representation and participation** for MENA R users in the International conferences.







The vision of R MENA ia to provide a platform to connect **R users/groups** in the MENA region where all the groups can interact, support, inspire each other and drive the creation of more useR/R-Ladies groups across the MENA region.





Mouna

BFI AID



Amal Tlili

Iman Al-Hasani

Fahad Almsned

Haifa Ben Messaoud





Kamila

BENADROUCHE



Mohammed El Fodil









@OpenSciSaudi, @batool664



The Turing Way project illustration by Scriberia. Used under a CC-BY 4.0 licence. DOI: 10.5281/zenodo.3332807

Zerodo https://bit.ly/34lC81e



 (\mathbf{i})

BY

(00)



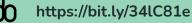
Open Science Community Saudi Arabia (OSCSA)

We want to provide a **place in Saudi Arabia where newcomers and experienced peers interact**, inspire each other to **embed open science** (research) practices and values in their workflows and **drive the creation of policies, infrastructures and support services**.

Together working to make Open Science the norm.

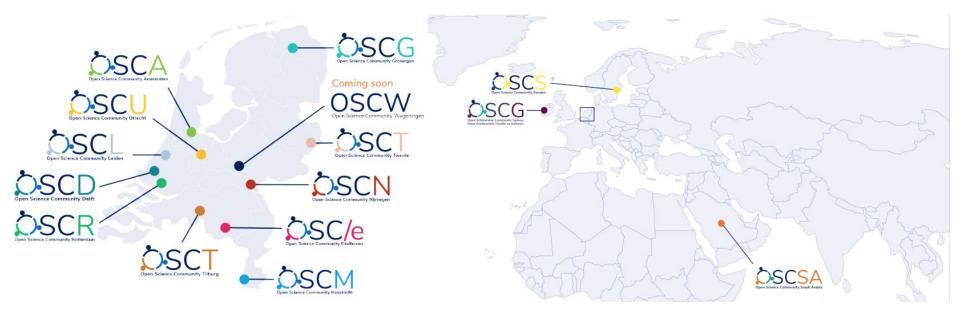








The International Network of Open Science Communities (INOSC)



Overview of the current Open Science Communities. As of May 2021, the International Network of Open Science Communities (INOSC) comprises Open Science Communities at 11 locations in the Netherlands, 1 in Ireland, 1 in Sweden, and 1 in Saudi Arabia. Image by Anita Eerland, licensed under CC BY-ND 3.0.

https://bit.ly/34lC81e











Open Science Community Saudi Arabia was born by the support of the **Open Life Science Program**.

Examples of our activities:



An Open Science Approach to Machine Learning in Biomedical Research



Workshop : Collaborating on Open Data Science Projects





The biggest Challenge is the Language barrier

Article Talk

Read Edit View history Search Wikipedia

Q

Open science

From Wikipedia, the free encyclopedia

One definition of **Open science** holds that it is the movement to make scientific research (including publications, data, physical samples, and software) and its dissemination accessible to all levels of an inquiring society, amateur or professional.^[1] Open science is transparent and accessible knowledge that is shared and developed through collaborative networks.^[2] It encompasses practices such as publishing open research, campaigning for open access, encouraging scientists to practice open-notebook science, and generally making it easier to publish and communicate scientific knowledge.

Usage of the term **Open science** varies substantially across disciplines, with a notable prevalence in the **STEM** disciplines. **Open research** is often used quasisynonymously to address the gap that the denotion of "science" might have regarding an inclusion of the Arts, Humanities and Social Sciences. The primary focus connecting all disciplines is the widespread uptake of new technologies and tools, and the underlying ecology of the production, dissemination and reception of knowledge from a research-based point-of-view. ^{[3][4]}

As Tennant et al. (2020) note, the term **Open science** "implicitly seems only to regard 'scientific' disciplines, whereas **Open Scholarship** can be considered to include research from the Arts and Humanities (Eve 2014;^[6] Knöchelmann 2019^[6]), as well as the different roles and practices that researchers perform as educators and communicators, and an underlying open philosophy of sharing knowledge beyond research communities.^{#[7]}

Open Science can be seen as a continuation of, rather than a revolution in, practices begun in the 17th century with the advent of the academic journal, when the societal demand for access to scientific knowledge reached a point at which it became necessary for groups of scientists to share resources^[8] with each other.^[9] In modern times there is debate about the extent to which scientific information should be shared.^[10] The conflict that led to the Open Science movement is between the desire of scientists to have access to shared resources versus the desire of individual entities to profit when other entities partake of their resources.^[11] Additionally, the status of open access and resources that are available for its promotion are likely to differ from one field of academic inquiry to another.^[12]

			Contents [hide]	
1	Princi	ples		
2	Background			
	2.1	Types	1	
		2.1.1	Infrastructure School	
		2.1.2	Measurement school	
		2.1.3	Public School	

https://bit.ly/34lC81e

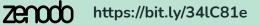




The biggest Challenge is the Language barrier

Q ابحث في ويكيبيديا	ا عدل تاريخ	لة نقال
🎉 II, Kali		فتح العلوم
		من ويكيبينيا، الموسوعة الحرة
تقديم طلب لمراجعة المقالة في الصفحة (مناسبة. يمكن أيضاً	هذه مقالة غير مراجعة. ينبغي أن يزال هذا القالب بعد أن يراجعها محرر مغاير للذي أنشأها؛ إذا لزم الأمر فيجب أن توسم المقالة بقوالب الصيانة ال المخصصة لذلك. (نوفمبر 2017)
[2][1] بيتمع.	جميع مستويات اله	ب فتح العلوم (بالإنجليزية: open science) و(بالفرنسية: science ouverte) هي الحركة التي تريد وضع البحث العلمي والبيانات في متناول
Bien commun Ressource éducative ouverte Donnée Science ouverte Méthode Sciences participatives & citoyennes		مراجع [عذا] 1. * "منادمات عن فتح العلوم على موقية eurovoc.europa.eu"، eurovoc.europa.eu . مزرشف من الأصلي؟ في 10 أغسطس 2020 2. * "معلومات عن فتح العلوم على موقية academic.microsoft.com". academic.microsoft.com . مزرشف من الأصلي؟ في 1 نوا
في كومنز صور وملفات عن: فتح العلوم		
		👸 بوابة علوم







How can we teach OS principles for novice learners?









Open Science III: Next steps - applying FAIR research principles

Cohort call / Week 10

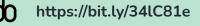
- FAIR Data
- FAIR Software
- FAIR Training



OLS: Designing and empowering for inclusivity

Week 14 – cohort call

- Unconscious Bias & Designing for inclusion
- Using Personas and Pathways
- Mountain of Engagement
- Mentored contributions







How can we teach OS principles for novice learners?

OLS-3 Cohort Talks and Transcripts

Malvika Sharan; So Yo Yehudi; Temmy Tsang; Carlos Martinez; Helena Rasche; Sether Plomp; Andre Maia Chagas; Iratxe Puebla; Leubla; Chagas; Platake Puebla; Platake Puebla;

This is a collection of **Open Life Science (OLS-3) videos and captions** in order to make them accessible, re-useable, and encourage further translation in other languages beyond English and Arabic. All original videos are available on Open LifeSci YouTube channel. This project was initiated by Talarify and Open Science Community in Saudi Arabia to facilitate learning of Open science practices to novice learners.

Individual videos can be downloaded from the GitHub repository:

- Introduction to Open Life Sciences
- Open Canvas for Project Strategy
- Roadmapping for Open Projects
- A Primer on Open Licenses
- README for Open Projects
- Contributing Guidelines and Codes of Conduct for Open Projects
- Agile and Iterative Project Management Methods
- Open Source in Research
- Open Data
- Open Source/Science Hardware
- ASAPbio supports preprint adoption in the life sciences
- Open Protocols
- Participatory Citizen Science
- Fair Data
- Fair Training
- Good enough practices for fair software
- Open Leadership Career Guidance: Social Entrepreneurship
- Open Science Hardware
- Local and National Publishers in Indonesia and the Impact on Open Science
- Unconscious Bias
- Personas and Pathways
- Discovering pathways and patterns of engagement in your work

Open Life Science (OLS-3) videos and captions are made available through Zenodo and GitHub, in order to make them **accessible**, **reusable**, **and encourage further translation** in other languages beyond English and Arabic.





The Topics:

- Introduction to Open Life Sciences
- Open Canvas for Project Strategy
- Roadmapping for Open Projects
- A Primer on Open Licenses
- README for Open Projects
- Contributing Guidelines and Codes of Conduct for Open Projects
- Agile and Iterative Project Management Methods
- Open Source in Research
- Open Data
- Open Source/Science Hardware
- ASAPbio supports preprint adoption in the life sciences

- Open Protocols
- Participatory Citizen Science
- Fair Data
- Fair Training
- Good enough practices for fair software
- Open Leadership Career Guidance: Social Entrepreneurship
- Open Science Hardware
- Local and National Publishers in Indonesia and the Impact on Open Science
- Unconscious Bias
- Personas and Pathways
- Discovering pathways and patterns of engagement in your work





Very short introductory materials for OS



We welcome contributors to improve the the transcript, translation workflow or expand the translation!







A big thank you!



Anelda van der Walt

Malvika Sharan



Yo Yehudi



Emmy Tsang

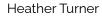


Dorothea Hug Peter



Yanina Bellini Saibene







https://bit.ly/34lC81e







Inspired by:



We welcome all contributions!



@batool664, @OpenSciSaudi, @RLadiesDammam

Zenodo https://bit.ly/34lC81e