



OPEN SCIENCE / OPEN DATA

Challenges and Best Practices
in Scientific Data Management

September, 20th – 2018, 9h – FAPESP

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WHY WE ARE INVOLVED IN?

- 1) There is an world-wide tendency for Open Science Access;
- 2) To encourage discussion about who is *the owner* of research data thesis work, etc.....;
- 3) Necessity to improve impact of our research;
- 4) Funding agencies (e.g. FAPESP) has been pushing us to think about it;
- 5) To go beyond the academic circle.....Social impact of our science;

...

We (our group) do believe in a changing of paradigm.



WHAT WE ARE DOING?

1) Since 2013 we have a Institutional Repository;



repositorio.unesp.br

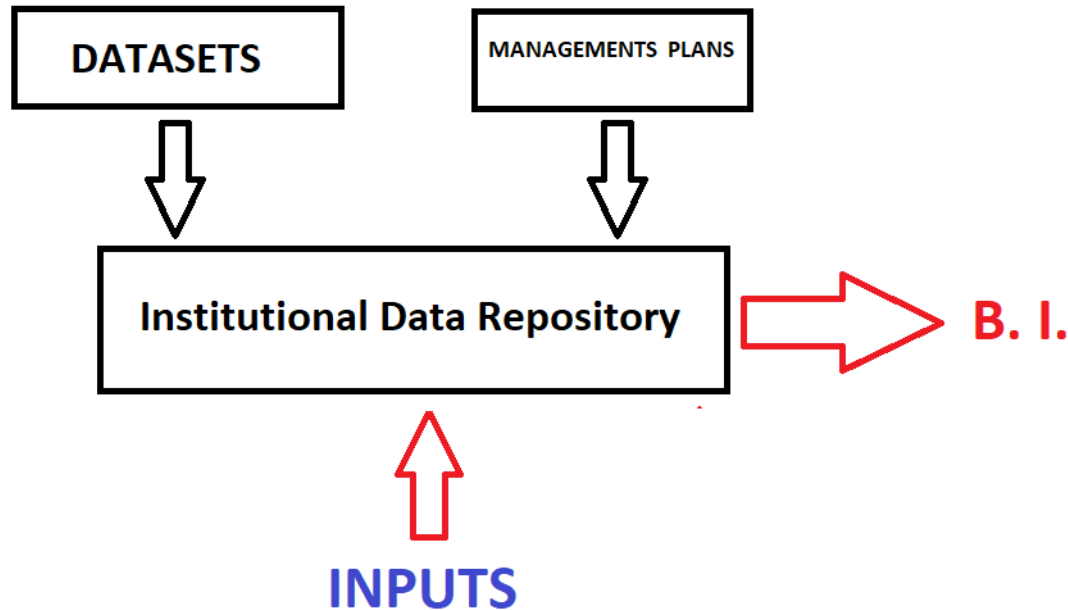
2) Working Group (Vice-President for Research Office, Libraries General Coordination and Technology of Information Central Office) - Portaria UNESP 03/08/2018

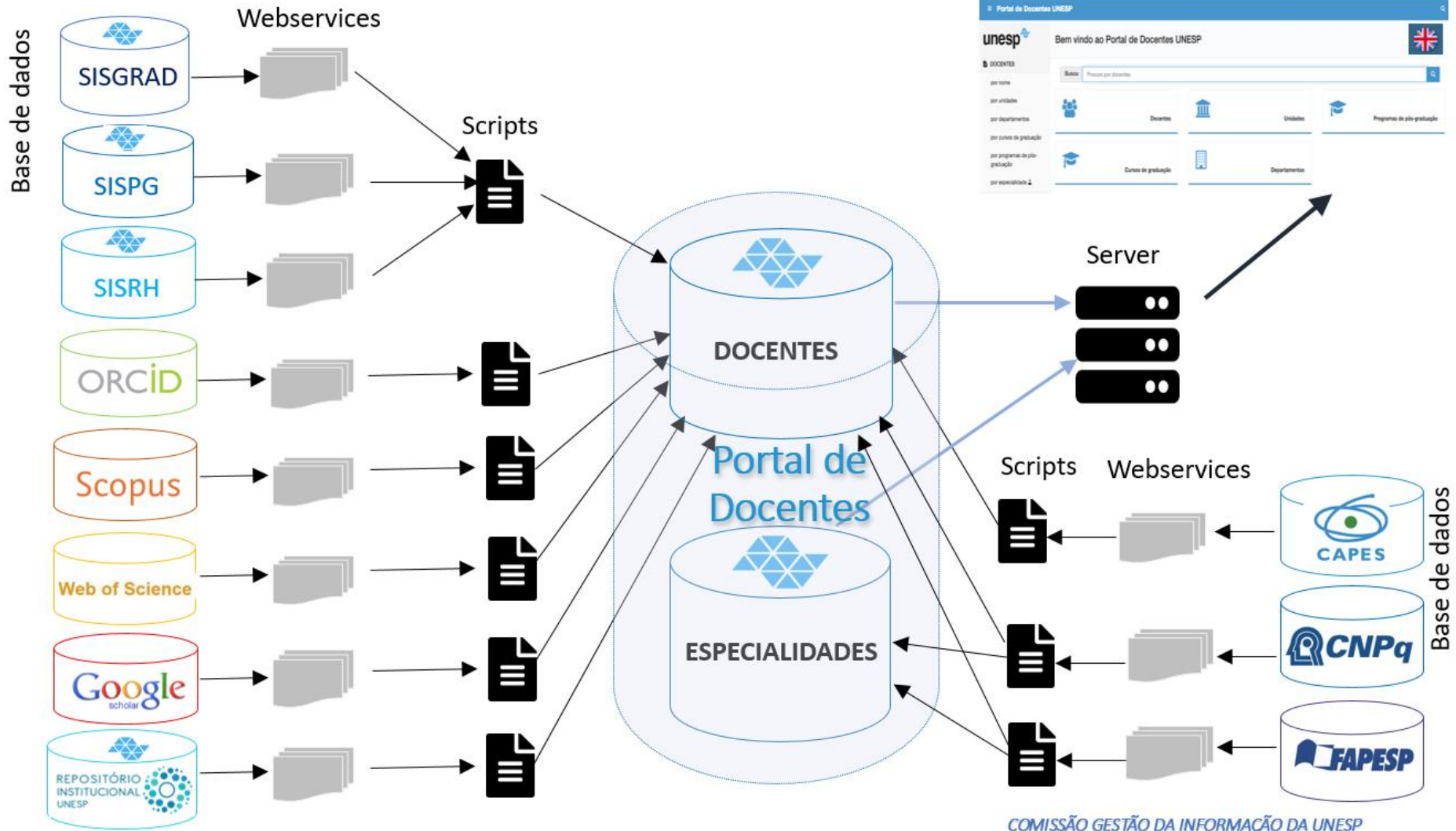
Initiatives to offer computational infrastructure to data store and adequate support to prepare a Data Management Plan;



3) Workshops (on-line access) about *Open Science* and *Data Management*;

4) Including our dataset and data plans in our Institutional Repository (DSpace);



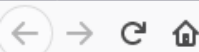




5) Integration with DMPTOOL;

The screenshot displays the DMPTool interface. At the top left is the DMPTool logo with the tagline 'Build your Data Management Plan'. The user is logged in as 'São Paulo State University (UNESP)'. Navigation links include 'My Dashboard' and 'Create plan'. An information banner states: 'Info: The NSF templates for AGS, EAR, CISE, and SBE were updated with very minor changes, mostly updated links on 9/12/18. DMPTool admins should transfer any customizations (instructions)'. The main project title is 'Adsorption of bisphosphonates and proteins on TiO2 surfaces for bone implants'. Below the title are tabs for 'Project Details', 'Plan overview', 'Write Plan', 'Share', and 'Download'. A progress indicator shows '0/13 answered'. A list of project components is shown, each with a plus sign and a progress count:

- Data Collection (0 / 2)
- Documentation and Metadata (0 / 1)
- Ethics and Legal Compliance (0 / 2)
- Storage and Backup (0 / 2)
- Selection and Preservation (0 / 2)
- Data Sharing (0 / 2)
- Responsibilities and Resources (0 / 2)



Sobre ▾

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DMPTool



DMPTool

Build your Data Management Plan

Ferramenta para construir sur plano de gestão de dados.



Adsorption of bisphosphonates and proteins on TiO₂ surfaces for bone implants

Project Details

Plan overview

Write Plan

Share

Download

* Project title

Adsorption of bisphosphonates and proteins on TiO₂ surfaces for bone i

mock project for testing, practice, or educational purposes

Funder

FAPESP

Grant number (optional)

2017/15035-5

Project abstract

Nanostructured titanium dioxide (TiO₂) has been used as surface modifier in biomedical implants, promoting biocorrosion resistance and increasing bioactivity of the oxides, showing promising results with the interaction with living matter. Although the biocompatibility of this oxide is recognized, there are still many aspects of the adhesion mechanisms between biomolecules and the surface of the

Plan Guidance Configuration

To help you write your plan, DMPTool can show you guidance from a variety of organizations.

Select up to 6 organizations to see their guidance.

DMPTool

Find guidance from additional organizations below

[See the full list](#)

Submit

-Principal Investigator-

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-Data Contact Person-

Same as Principal Investigator

Submit

Cancel



Build your Data Management Plan

São Paulo State University (UNESP)

São Paulo State University (UNESP)



My Dashboard Create plan

🟢 Notice: Successfully saved your plan.

🔔 Info: The NSF templates for AGS, EAR, CISE, and SBE were updated with very minor changes, mostly updated links on 9/12/18. DMPTool admins should transfer any customizations (instructions).

Adsorption of bisphosphonates and proteins on TiO₂ surfaces for bone implants

Project Details

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Digital Curation Centre

This plan is based on the "Digital Curation Centre" template provided by Digital Curation Centre (DCC).

<http://www.dcc.ac.uk/resources/how-guides/develop-data-plan>

Instructions

Write plan

Data Collection

- What data will you collect or create?
- How will the data be collected or created?

Documentation and Metadata

- What documentation and metadata will accompany the data?

Ethics and Legal Compliance

- How will you manage any ethical issues?
- How will you manage copyright and Intellectual Property Rights (IP/IPR) issues?

Storage and Backup

- How will the data be stored and backed up during the research?
- How will you manage access and security?



São Paulo State University (UNESP)

São Paulo State University (UNESP)



[My Dashboard](#) [Create plan](#)

Info: The NSF templates for AGS, EAR, CISE, and SBE were updated with very minor changes, mostly updated links on 9/12/18. DMPTool admins should transfer any customizations (instructions).

Adsorption of bisphosphonates and proteins on TiO₂ surfaces for bone implants

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expand all | collapse all

0/13 answered

+ Data Collection (0 / 2)

+ Documentation and Metadata (0 / 1)

+ Ethics and Legal Compliance (0 / 2)

+ Storage and Backup (0 / 2)

+ Selection and Preservation (0 / 2)

+ Data Sharing (0 / 2)

+ Responsibilities and Resources (0 / 2)



Adsorption of bisphosphonates and proteins on TiO₂ surfaces for bone implants

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Set plan visibility

Public or organizational visibility is intended for finished plans. You must answer at least 50% of the questions to enable these options. Note: test plans are set to private visibility by default.

- Private: visible to me, specified collaborators and administrators at my organization
- Organization: anyone at my organization can view
- Public: anyone can view

Manage collaborators

Invite specific people to read, edit, or administer your plan. Invitees will receive an email notification that they have access to this plan.

Email address	Permissions
paulo.lisboa@unesp.br	Owner

Invite collaborators

* Email

* Permissions

- Co-owner: can edit project details, change visibility, and add collaborators
- Editor: can comment and make changes
- Read only: can view and comment, but not make changes

[Send invitation](#)



Adsorption of bisphosphonates and proteins on TiO₂ surfaces for bone implants

Data Collection

What data will you collect or create?

graphics, list of data and electron microscopy images.

How will the data be collected or created?

Different types of experiment:

- 1) X-ray Diffraction;
- 2) X-Ray photoelectron spectroscopy;
- 3) Electron microscopy;
- 4) Biological Tests

Documentation and Metadata

What documentation and metadata will accompany the data?



CHALLENGES

- 1) A number of !!;
- 2) To spread the Open Science Approach @ UNESP;
- 3) To be adherent to e-Science environment;
- 4) To establish an institutional policy about Data Management (the biggest);
- 5) Ethical issues;
- 6) Validating the model by different research areas (...physics, biology, engineering, plant science, social science, literature, social science,....etc);
- 7) To better provide information within this framework.



AI
Assessoria de Informática

