

File Version Control

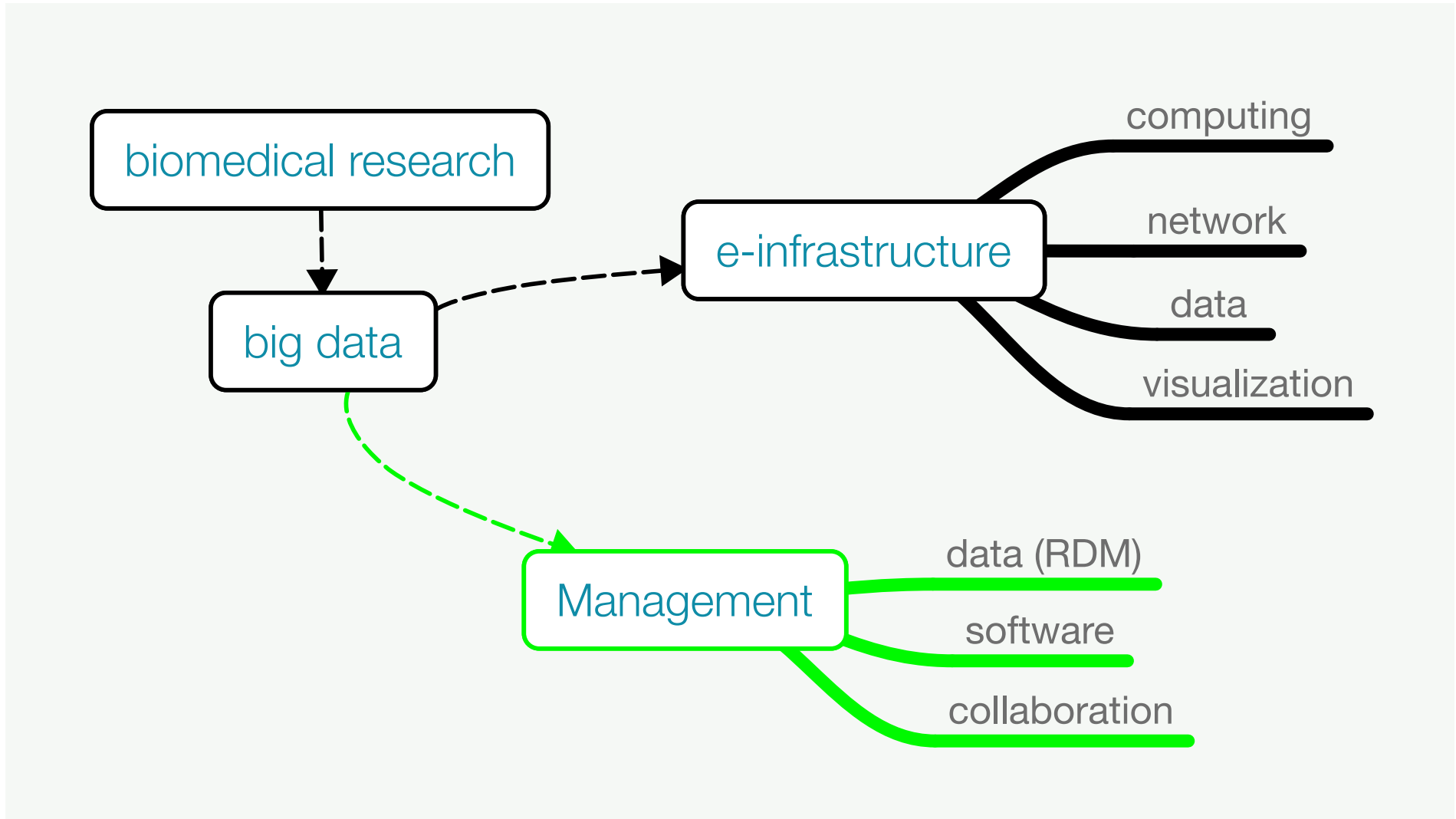
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<http://www.ebioscience.amc.nl/teaching/escienceGS>

Today



Why management tools?

- Management = “the process of dealing with or controlling things or people.” (google)
- What for?
 - Enable & Control
 - Record & Retrieve
- Data
- Collaboration
- Software 



Towards Reproducible Science

Data, Materials, and Code Availability

All code used for this study is available on GitHub¹, including R notebooks () that demonstrate how to reproduce all the results, figures, and statistics from the data. The eye tracking, questionnaire, and meta-data can be downloaded from a figshare repository (). All of these and additional resources can be found on this study's page on the Open Science Framework².



<https://uvaauas.figshare.com/>



Software Version management

- Management = “the process of dealing with or controlling things or people.” (google)
- What for?
 - Enable & Control
 - Record & Retrieve
 - Understand & Reproduce
- Files
- Version control
- Collaboration control



Version control?

- Version control (system) is a system that records changes to a file or set of files over time so that you can recall specific versions later.
- Can be applied to any file (programs, scripts, notes, data)
- Allows
 - annotate relevant changes
 - revert files back to a previous state
 - compare changes over time
 - see who last modified something

<https://git-scm.com/book/en/v2/Getting-Started-About-Version-Control>



Example of version control: keep track of changes to a script

- Case
 - You developed a ‘program’ (script in R or a syntax in SPSS) to calculate statistics on some dataset.
 - After one year you need to run the ‘program’ again, but you need to adapt it to the newest version of R or SPSS
- How would you manage the files containing the old and the new version of your program?



Example of collaboration: share a script

- Case
 - After 2 years a new researcher from overseas wants to use your program
 - She needs to update it to cope with the newest version of R or SPSS
 - You are interested in using this updated program
- How would you share your program with another researcher?



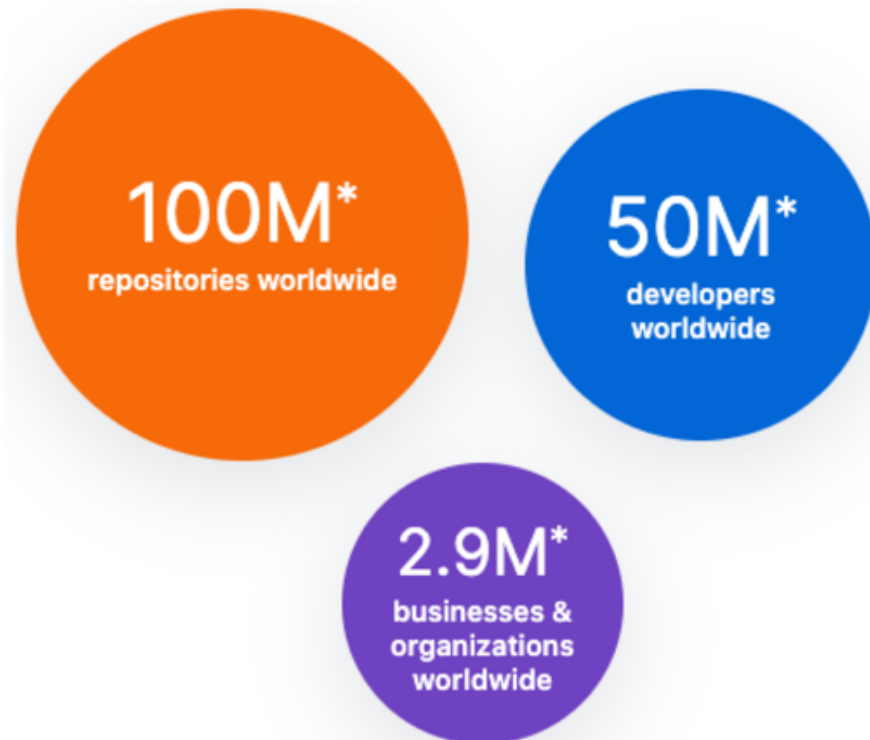
POLL



Example: GitHub



- <https://github.com/>
- code hosting platform for **version control** and **collaboration**



Sign in to GitHub

Username or email address
s.d.olabbarriaga@amsterdamumc.nl

Password
.....

Forgot password?

Sign in

New to GitHub? [Create an account.](#)



How GitHub works



- Based on git (<https://git-scm.com/>)
- Service in the cloud
- Access
 - Web interface
 - Desktop application (windows, linux, mac)



Main concepts of GitHub



- Repository/Project
- Check out files
- Commit changes
- Versions, Releases
- Organizations, Teams



Demo

- <https://github.com/>
- github desktop

- Individual account (SilviaOlabarriaga)
- Group account (AMCeScience)

- User profile (activity, settings)
- Repositories (private, public)
- History
- Issues
- Wiki



<https://gitlab.amc.nl/>



- <http://intranet.amc.nl/web/organisatie/domeinen/research/research-life-cycle/archiving-open-data/git-software-control-and-repository.htm>

AMC

An local GitLab is available <https://gitlab.amc.nl/>

- The system is an unofficial product, hosted by ADICT.
- It is only available in the AMC <https://mijnwerkplek.amc.nl>
- You can ask for an GitLab account by <http://coldfusion.amc.nl/adict/storingsmelding/>;
Bij omschrijving: "gitlab account aanvragen voor <inlognaam_amc>"




GitLab Projects Groups More Search or jump to...

Projects


Welcome to GitLab

Code, test, and deploy together




Create a project

Projects are where you store your code, access issues, wiki and other features of GitLab.




Create a group

Groups are the best way to manage projects and members.



Explore public projects

There are 9 public projects on this server. Public projects are an easy way to allow everyone to have read-only access.



Learn more about GitLab

Take a look at the documentation to discover all of GitLab's capabilities.



Groups

Your groups

Explore public groups

Last created ▾

New group



Below you will find all the groups that are public.

You can easily contribute to them by requesting to join these groups.



		kgresearch The AMC Clinical Genetics research group	0	2	4	
		AMC_RADNG Shared repo for Radiology and Nuclear Medicine @ AMC	0	9	12	
		AMC_KNF_OOG KNF map met al de oogonderzoek software	0	1	2	
		AMC_Matlab_toolboxes Collection of publicly available toolboxes	0	3	5	
		AMC_KNF_Windows	0	2	4	
		AMC_KNF_Ultrasound	0	2	2	
		AMC_KNF_MRI	0	4	2	
		AMC_KNF_MER	0	2	2	
		AMC_KNF_EEG_EMG	0	10	3	





AMC_Matlab_toolboxes

Collection of publicly available toolboxes

Request Access

Global

Search by name

Subgroups and projects

Shared projects

Archived projects

Last created

-   **SPM12**
SPM12 toolbox from: <http://www.fil.ion.ucl.ac.uk/spm/download...> ★ 0  1 year ago
-   **SPM8**
Imported from: <http://www.fil.ion.ucl.ac.uk/spm/download/restr...> ★ 0  1 year ago
-   **ExploreDTI** ★ 0  1 year ago





You won't be able to pull or push project code via SSH until you add an SSH key to your profile

Don't show again | Remind later

AMC_Matlab_toolboxes > SPM12 > Details

SPM12 Public LICENSE

SPM12 toolbox from: <http://www.fil.ion.ucl.ac.uk/spm/download/restricted/eldorado/spm12.zip>

Project ID: 86

0

Star

0

Fork

HTTPS

<https://gitlab.amc.nl>



+



Global

Request Access

Readme Files (107.9 MB) Commits (2) Branch (1) Tags (2) Auto DevOps enabled

master

spm12 /

+

History

Find file



Updated SPM to r6906

Wouter Potters authored 1 year ago

fb524dfb



Name

Last commit

Last update

@file_array

Updated SPM to r6906

1 year ago

@gitti

Updated SPM to r6906

1 year ago



Take home message

- Tools can facilitate management in research activity
 - data, collaborations, software
- Many tools with variations in
 - Functions
 - Ease of use
 - Availability (price)
 - Security
- Pick one!

- At AMC

- software winkel
- <https://gitlab.amc.nl/>

