hMRI toolbox team meeting

"(What's the story) Morning glory"

"(What's the story) Afternoon glory"

Christophe Phillips

"Cigarette and alcohol"

Key survival info

▶ Building doors open with a badge… don't be locked out!

▶ Coffee & sweets, in the room

▶ Wifi access

- Eduroam should/may work

- Guest network
  → Id `f044109` & pwd `sUM>G6yu`

▶ Dinner in town tonight, who ?

"Don't look back in anger"

Originally "Voxel-Based Quantification", aka. VBQ, toolbox

▶ Some code from 2008 (C. Hutton on `B1map`), then bits and pieces added.

▶ 1st release (public?) in 2011,
    around Bogdan's paper (230 citations)

▶ Started versioning (with SVN) in 2014(?),
    around Martina's paper (225 citations)

Original contributors (from names in code)

▶ J. Ashburner, E. Balteau, B. Draganski, G. Helms, C. Hutton, F. Kherif, A. Lutti, C. Phillips, N. Weiskopf

▶ Where is M.F. Callaghan ???

"Live forever"

Now the hMRI toolbox, based on VBQ code…

▶ Hosted on Github, local then international,

- 1st recorded commit on GitHub (actually SVN) on October 20, 2014
- 1st public beta (v0.1.0) release on November 23, 2018
- 1st public (v0.2.0) release on December 21, 2018
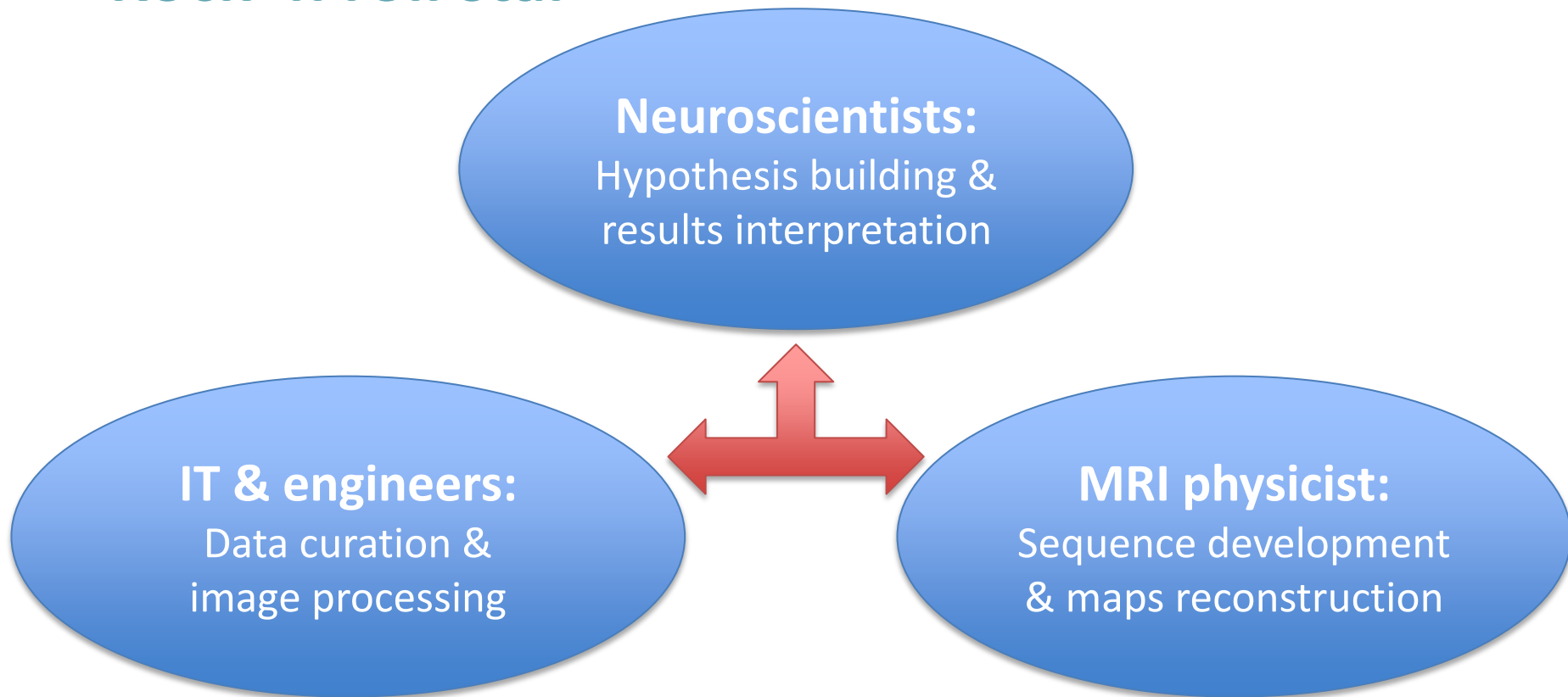- 1134 commits, 16 releases, 44 forks, 29 branches, 61 PRs (53 closed)

More contributors

▶ J. Ashburner, E. Balteau, B. Draganski, G. Helms, C. Hutton, F. Kherif, A. Lutti, C. Phillips, N. Weiskopf

▶ E. Reimer, L. Edwards, P. Scheibe, M.F. Callaghan, B.E. Ugurcan, T. Leuritz, N. Beliy, et al.

"Wonderwall"

- In 2018, presentations at conferences
  - Joint Annual Meeting ISMRM-ESMRMB (https://hdl.handle.net/2268/225763)
  - Organization for Human Brain Mapping Annual Meeting (https://hdl.handle.net/2268/225361)
- In 2019, 2 papers in
  - NeuroImage, "hMRI – A toolbox for quantitative MRI in neuroscience and clinical research" (134 citations)
  - Data in Brief, "Example dataset for the hMRI toolbox" (19 citations)
- Some more stuff
  - Lorio et al. "New tissue priors for improved automated classification of subcortical brain structures on MRI", NeuroImage, 2016 (85 citations)
  - Lutti et al. "Restoring statistical validity in group analyses of motion-corrupted MRI data", Human Brain Mapping, 2022 (13 citations)

"Rock 'n roll star"

Neuroscientists:
Hypothesis building &
results interpretation

IT & engineers:
Data curation &
image processing

MRI physicist:
Sequence development
& maps reconstruction

Each field has his own constraints and interests!

"The masterplan"

Objectives

▶ More advanced acquisition techniques

▶ Better and easier to use reconstruction tools

▶ Improved image processing, spatial and statistics

Other objectives?

▶ Open data

▶ Education & communication

▶ Tool spreading

"Champagne supernova"

Meetings & activities

▶ October 16-17, 2024, "hMRI meeting" here at GIGA CRC Human Imaging, Uliège, Belgium

▶ September 18-19, 2025, "SPM Homecoming" meeting, i.e. developers and contributors, at FIL, London, UK

▶ Any other international workshop/course ?

Hoy, what'cha waitin' fur?!