

AmiGO 2: Welcome to the Beta

Seth Carbon, Chris Mungall, and Heiko Dietze

Berkeley BOP (<http://berkeleybop.org>),
Lawrence Berkeley National Lab

April 11, 2013

Outline

- 1 Recap
- 2 The Current State of Things
- 3 The Future
- 4 Acknowledgments

AmiGO 1

After years of clinging to a core relational database and SQL backend, the increasing number of tricks, extensions, and caches necessary to keep performance at an acceptable level has become too much.

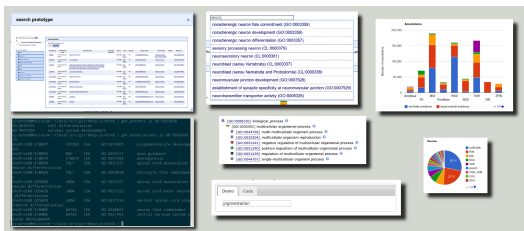
Falling behind on:

- Complicated queries: enrichment, subsets, search, reports, etc.
- Handling larger amounts of data
- Providing services

AmiGO 2

The new architecture brings a lot to the table:

- Data as a document—making life simpler
- Our world is now pre-computed
- Can handle more data
- Easy tool creation, embedding, and widgets
- Direct remote data use (HTTP) and scripting (JavaScript API)



Since Last Time

We now have:

- A stabilized instance (less downtime and oddities)
- Backend and libraries stabilized
- Frontend improvements
- Galaxy aware and kick out to GO Galaxy

The screenshot displays the Galaxy web interface. On the left, a workflow is visible with steps like 'regulates - occurs in T' and 'binding cell'. In the center, a heatmap visualization shows data points in a grid. On the right, a code editor window is open, displaying JavaScript code for a GENEUNTOLOGY Unifvina BioIav workflow. The code includes a 'session_start()' function and a 'function (id)' for adding query filters. Below the code editor, there are buttons for 'Evaluate buffer', 'Clear buffer', and 'Clear log'.

Bugs Now Considered Harmful

We're now entering beta—feedback is welcome.

- The AmiGO 2 Manual home: installation, links to more documentation, etc.
http://wiki.geneontology.org/index.php/AmiGO_2_Manual
- For interface and feature requests
 - Please contact me
 - Trackers are open for business (check here first)
<https://github.com/kltm/amigo>
- For developer stuff: use of widgets, services, scripting, etc.
 - Mailing list home: for announcements, changes that may break things
<https://lists.lbl.gov/sympa/info/amigo2-dev>

Bugs Now Considered Harmful

We're now entering beta—feedback is welcome.

- The AmiGO 2 Manual home: installation, links to more documentation, etc.
http://wiki.geneontology.org/index.php/AmiGO_2_Manual
- For interface and feature requests
 - Please contact me
 - Trackers are open for business (check here first)
<https://github.com/kltm/amigo>
- For developer stuff: use of widgets, services, scripting, etc.
 - Mailing list home: for announcements, changes that may break things
<https://lists.lbl.gov/sympa/info/amigo2-dev>

A new way of doing things. Relax...

Collaboration and Integration

- Work with other groups on tools, schema, and library development
- Better consumption of aligned resources



QuickGO, GONUTS, Wikipedia, Plant Ontology, Virtual Fly Brain, Wikipedia...

The Road to Production

- Frontend
 - Better documentation
 - UI improvements (looking at ZFIN)
 - More widgets as we get feedback
- Production
 - Jenkins loading
 - Scaling, server tuning, and the cloud
 - How many users will we have and how will they be using it?
 - How open do we want to be?
 - Analytics (user tracking) is now a lot harder
 - JS API, direct data, AmiGO 2
- Development
 - A few more backend tweaks (memory and traversal)

Acknowledgments

- Berkeley Bioinformatics Open-source Projects
- The Gene Ontology Consortium
- Saccharomyces Genome Database
- All the users of AmiGO
- All the future users of AmiGO 2