

Mary Barkworth¹, Ben Brandt², Neil Cobb², Curtis Dyreson³,
Will Pearse¹ [Names listed alphabetically]

¹Biology Department, Utah State University

²Northern Arizona University

³Computer Science Department, Utah State University

Symbiota2

Overview

What is Symbiota?

Why Symbiota + 1?

Symbiota2

What is Symbiota?

Software that encourages participation, collaboration, and research

Small collections
Large collections
Systematists
Scientists
Photographers
Educators
Policy makers
Research scientists
Citizen scientists
Other projects

Contribute records
Specimen-, image-, observation-based
Contribute images
View distribution
Maintain curated checklists
Generate multi-access keys
Flashcard quizzes for teaching
Spatial analyses
Link to Keybase, Genbank, EoL

Software that levels the playing field

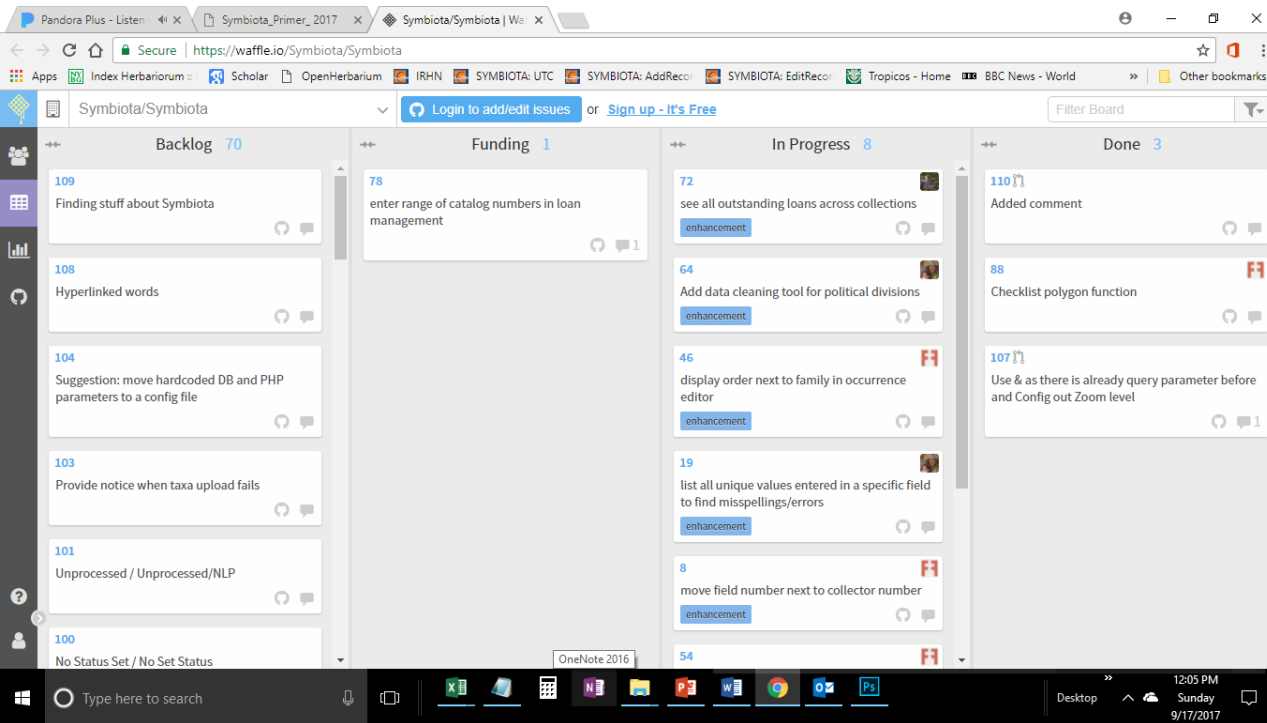
Or perhaps just numbers

- Number of collections, number of records, map of collections

Over 766 collections, 40 collection networks, 37 million records

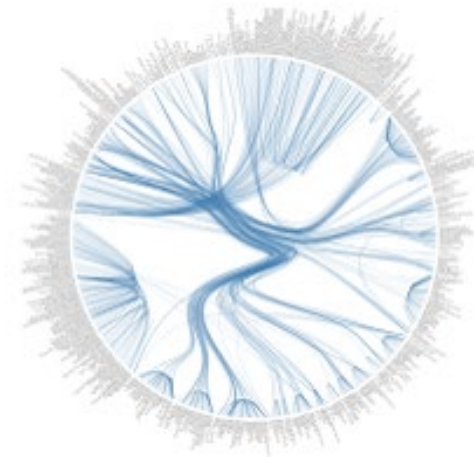
Why Symbiota + 1?

- Many people = Many asks

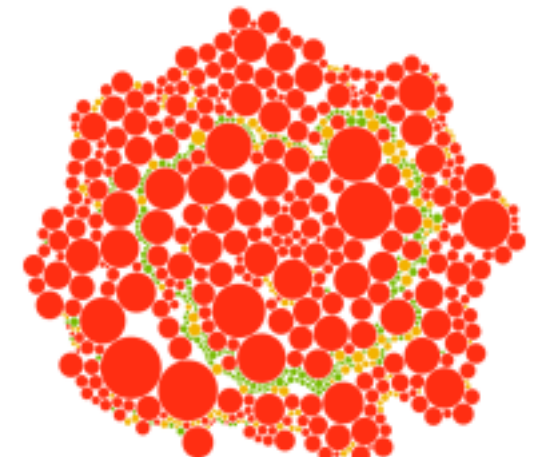


- Some simple, some not

- Two major developers
 - Code complex
 - PHP



Class relationships
Classes on outside,
edges connect classes
that call each other



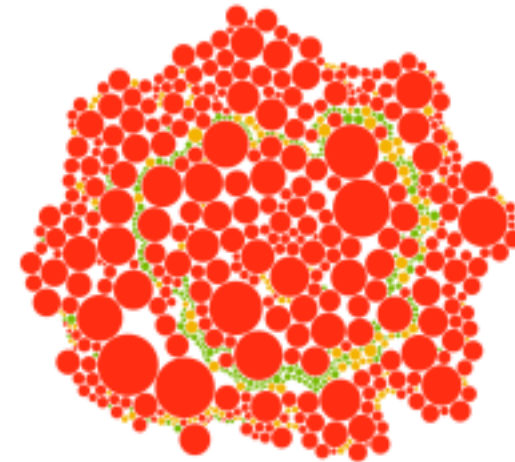
Cyclometric complexity:
Circle size – connectedness
Color – complexity, red
high, green low

Why Symbiota + 1?

- Many people – many asks
 - Small
 - Other languages
 - Add a field
 - Make tasks easier
 - Large
 - Enable integration into other work flows
 - Incorporate survey data
 - Make tasks easier
 - Integrate research tools

Few developers (2 major, some minor)

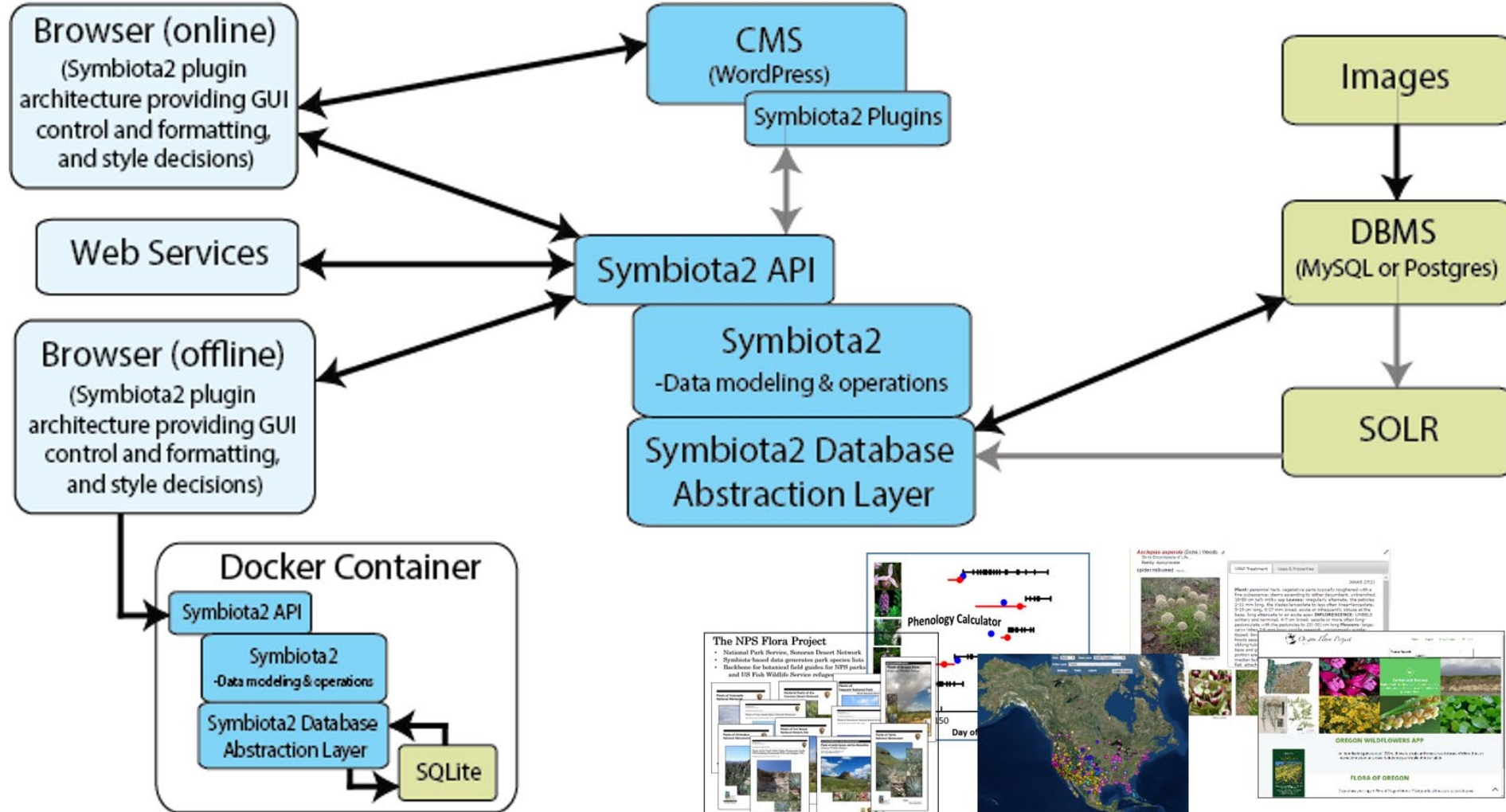
Multicolored strand of wool



Client

Server

Data



For providers

1

Work Offline –
helps with
fieldwork, poor
internet access

2

Better
navigation tools
from CMS
integration

3

Incorporate
more kinds of
data – EXIF,
survey

4

Modify Forms –
reorganize
fields, change
language

End users

Ability to connect to information in other database systems (bibliographic, morphological)

Mapping phylogenetic diversity

Determining active species

Generate apps for trails

Developers

Plugin
Architecture

RESTful
Workflow

Adaptable to
other DBMS

Symbiota2

More options
for data
providers

Easier to
navigate

New abilities
built in

Easier for
potential
developers