The Future of Collaboration
by Daniel Greenfeld
Who am I?

Daniel Greenfeld (@pydanny)
Cartwheel Web / Revsys
http://djangopackages.com
https://whitespacejobs.org
Fiancé of Audrey Roy

http://www.flickr.com/photos/pydanny/4442245488
Mark Pilgrim
is
Gone
Mark Pilgrim

- feedparser
- contributed to httplib2
- Dive into Python
- Dive into HTML5
Mark’s Projects?

- What is the copyright on his material?
- What about his code?
httpplib2

• Mark wasn’t lead, but outage anyway...
• PyPI?
• http://code.google.com/p/httpplib2 was down
• Had to find a cached download
• A lot of libraries depend on httpplib2
PyPI Issues?

- Packages are too easily deleted
- Dependency checks for that package
- Request a project hand-off?
- Other projects need to be notified
- RSS feed of these things
- Needs moderation but PyPI busy
Repeating History?

- http://pypants(.com|.org|.net) is gone
- http://djangolint.com is here today
Repeating History?

- django-piston
- python.org
- http://opencomparison.org
A Dark Future
Critical Packages Breakdown

• A number of critical Python Packages vanish

• Various build scripts fail

• Replace from caches/backups

• Domain Knowledge is gone

Dark Future
Repercussions

Dark Future

- Annoyance
- Ability for Python to move forward HALTS
- Social Issues
Not the Future
TODAY

• Legacy code tries to install legacy packages
• Various build scripts fail
• Replace from caches/backups **MAYBE**!
• Domain Knowledge is gone
Library of Alexandria

Stuff we make today

Is legacy within 5 years
Trust Issues
Lack of trust makes collaboration hard
No collaboration causes the NIH plague
Repercussions
TODAY

• Annoyance
• Ability for Python to move forward HALTS
• Social issues
Solution?

Sponsorships!
Sponsorships

- Individual, Corporate, Academic, GSOC
- Advance an open source project forward!
Sponsorships

- Python core
- Django
- Plone
- Twisted
- Read the Docs (PSF)
- WebOb (PSF)

Tons more I’m missing!
Problems

- Application process
- Seems focused on short-term development
  - Interns often produce unusable code
- Ongoing maintenance?
Critical Packages
Breakdown

• Legacy code tries to install legacy packages
• Various build scripts fail
• Replace from caches/backups MAYBE!
• Domain Knowledge is gone

NOCHANGES
Repercussions

• Annoyance
• Ability for Python to move forward HALTS
• Social issues
Same as before
Still have Trust Issues
Why should I collaborate with you?
Future still looks dark
So now what?
Solution?

Community Managers
Community Managers

- David Eaves DjangoCon 2011 Keynote
- Makes sure packages are maintained!
Problems

- Need core/senior developers
- They are already busy
- Who assigns authority?
Solution Reconsidered
PSF Paid Community Manager

• Reasonable pay
• Works with PyPI team to do package curation
• Helps project leads if they need to hand off
• Broadcasts so the community knows about it
Solution Reconsidered
PSF Paid Community Manager

• Performance reviews
• Term limits
• Great resume material
• Volunteers have different priorities
Increase of Trust
This makes collaboration easier
The Brighter Future
Critical Packages Breakdown

Today

• A number of critical Python Packages vanish
• Various build scripts fail
• Replace from caches/backups
• Domain Knowledge is gone
Critical Packages Breakdown

• A number of critical Python Packages vanish
• Various build scripts **continue**
• Domain Knowledge **is at risk**
Repercussions

Today

- Annoyance
- Ability for Python to move forward HALTS
- Social Issues
Repercussions

Future

- Annoyance
- Ability for Python to move forward slows
- Mitigated Social Issues
Precedents

• Ubuntu Community Manager
• Isn’t there a Fedora Community Manager?
• Twilio Community Managers
But...
I want more
More reasons to trust
More incentives to collaborate
More reasons to give code back
Question:

How do we keep the projects that do this operating?
Call to Action
Proposal:

PSF

Project Incubation
The Idea Part I

The PSF provides seed money to open source projects that can provide a return of investment on these items:

- Tangible benefit to the Python community
- Money via a viable business model
The Idea Part II

What the PSF Board / Community does:

• Choose from participants in coding contests
  • Django Dash & other unborn contests
• PSF offers YC-style seed funding
• Marketing: Blog posts, PyCon booths, python.org
• Lets them go to do their thing
The Idea Part III

What the incubatee provides:

• Deliverable open source code
• Something that makes the Python world better
• PSF is an investor so dividends come back
What this isn’t

• Covering < $100 monthly hosting
• Throwing money at things without a self-supporting business model
• For part-timers - It’s all or nothing
If I were rich I would do this right now
Real World
Example Projects
djangolint.com
http://djangolint.com

• Winner of this year’s Django Dash
http://djangolint.com

1. Enter github repo url for your django project
2. Press 'Go' and wait until the code analysis finished
3. Check the results

https://github.com/opencomparison/opencomparison

For example: https://github.com/yumike/djangolint

✔ Preparing to work with the project.

✔ Cloning the project.

✔ Parsing the source code.

✔ Checking the project for deprecated and non-optimal code.

Done! You can see the results here.
You'll have access to the results within 30 days.
http://djangolint.com

YOUR PROJECT:
https://github.com/opencomparison/opencomparison

RESULTS URL:
http://djangolint.com/results/292356af133e1dfa71ff5de124622d832dc48361

FIXES:

apps/grid/urls.py

'django.views.generic.date_based.archive_index' function is deprecated

90.   ),
91.   
92.   url(
93.       regex = r"^latest/$",
94.       view = archive_index,
95.       name = "latest_grids",
96.       kwargs = dict(
97.           queryset=Grid.objects.select_related(),
98.           date_field='created'
99.       )
100.   ),
101.   
102.   url(
http://djangolint.com

- Winner of this year’s Django Dash
- I want this for Python
- API/Syndication? (Open Comparison)
- Will it be maintained?
- Will it go the way of PyPants?
Business Model

Pay to analyze privately

(Great for client projects!)
Easy linting increases Trust
Collaborate with high lint rated projects!
http://rtfd.org

• Placed in the 2010 Django Dash
• python.rtfd.org
• plone.rtfd.org
• pydanny-event-notes.rtfd.org
A measurable benchmark!
Documentation increases Trust
Documentation increases Trust increases Collaboration
Can it do more?

• Support other markup languages?
Business Model

Pay for private doc hosting?
http://depot.io

- A place to freeze your Python dependencies
- Let’s PyPI focus on what it does best - Indexing
- Provides additional security
- Fetch packages any way you want
- Not yet launched.

Developer paying the bills?
http://depot.io

Possible Advantages

• PyPI is still the canonical source
• Less need for Paid Community manager
• Will probably archive all legacy packages

(Except ones flagged for critical things like security)

• OMG CAN WE HAVE THIS PLEASE?
Dependability increases
Trust
Collaboration
Trust increases
http://depot.io

• PSF should incubate this project

• Open source it?
  •  + Lowers the bus factor
  •  - Easy launch of copy versions of site
  •  - Does it become harder to earn profit?
  •  + Once launched, SLA is key
PyPI
http://pypi.python.org/pypi

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<table>
<thead>
<tr>
<th>Updated</th>
<th>Package</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-10-06</td>
<td>fresnel 0.1.0</td>
<td>light interaction with interfaces and multilayers</td>
</tr>
<tr>
<td>2011-10-06</td>
<td>stripplers_mixi 1.0rc3</td>
<td>Python library for mixi Graph API</td>
</tr>
<tr>
<td>2011-10-06</td>
<td>regex 20111006</td>
<td>Alternate regular expression module, to replace re.</td>
</tr>
<tr>
<td>2011-10-06</td>
<td>isoma.recipe.django 3.1.2</td>
<td>Buildout recipe for Django</td>
</tr>
<tr>
<td>2011-10-06</td>
<td>Shake 0.5.4</td>
<td>A web framework mixed from the best ingredients</td>
</tr>
<tr>
<td>2011-10-06</td>
<td>py.saunter 0.16</td>
<td>An opinionated Selenium framework</td>
</tr>
<tr>
<td>2011-10-06</td>
<td>slimit 0.5.5</td>
<td>Slimit - JavaScript minifier</td>
</tr>
<tr>
<td>2011-10-06</td>
<td>Shake-Images 0.2</td>
<td>Simple front end to the smtplib and email modules, to simplify sending</td>
</tr>
<tr>
<td></td>
<td></td>
<td>emails in your Shake app</td>
</tr>
<tr>
<td>2011-10-06</td>
<td>Shake-Files 0.2</td>
<td>Allows your Shake application to flexibly and efficiently handle file</td>
</tr>
<tr>
<td></td>
<td></td>
<td>uploads</td>
</tr>
<tr>
<td>2011-10-06</td>
<td>Shake-Auth 0.5</td>
<td>Shake's awesome authentication extension.</td>
</tr>
<tr>
<td>2011-10-06</td>
<td>Shake-Mail 0.2</td>
<td>Simple front end to the smtplib and email modules, to simplify sending</td>
</tr>
<tr>
<td></td>
<td></td>
<td>emails in your Shake app</td>
</tr>
<tr>
<td>2011-10-06</td>
<td>Shake-SQLAlchemy 0.2</td>
<td>Add SQLAlchemy support to your Shake application</td>
</tr>
<tr>
<td>2011-10-05</td>
<td>speedparser 0.1.1</td>
<td>feedparser but faster and worse</td>
</tr>
<tr>
<td>2011-10-05</td>
<td>django-countries 1.1</td>
<td>Provides a country field for Django models.</td>
</tr>
<tr>
<td>2011-10-05</td>
<td>dotfiles 0.4.2</td>
<td>Easily manage your dotfiles</td>
</tr>
<tr>
<td>2011-10-05</td>
<td>django_structure 0.0.3</td>
<td>This app allow you to create your own custom django project structure, and then use it as you please.</td>
</tr>
<tr>
<td>2011-10-05</td>
<td>ldapom 0.9.1</td>
<td>A simple ldap object mapper for python</td>
</tr>
<tr>
<td>2011-10-05</td>
<td>django-conneg 0.4</td>
<td>An implementation of content-negotiating class-based views for Django</td>
</tr>
<tr>
<td>2011-10-05</td>
<td>pygit2 0.15.0</td>
<td>Python bindings for libgit2</td>
</tr>
<tr>
<td>2011-10-05</td>
<td>kemvi 1.0.0</td>
<td>Kemvi client-side library</td>
</tr>
<tr>
<td>2011-10-05</td>
<td>eulexistdb 0.15.1</td>
<td>Idiomatic access to the eXist-db XML Database using XPath and XQuery</td>
</tr>
</tbody>
</table>
PyPI

• Launched before the days of OS X
• The canonical source for Python packages
• Focusing hard on just Indexing
Business Model

Pay for a PyPI Appliance?
Dependability increases
Trust
Trust increases
Collaboration
opencomparison.org
http://djangopackages.com/

**Django Packages**

Django Packages is a directory of reusable apps, sites, tools, and more for your Django projects.

931 packages and counting!

Know of any packages not listed here? Add them now! It's quick and easy.

Or add a grid comparing the features of 2 or more similar packages.

**Package Categories**

**Apps (735)**

Small components used to build projects. An app is anything that is installed by placing in settings.INSTALLED_APPS.

**Frameworks (41)**

Large efforts that combine many python modules or apps. Examples include Django, P inex, and Satchmo. Most CMS falls into this category.

**Other (119)**

Other are not installed by settings.INSTALLED_APPS, are not frameworks or sites but still help Django in some way.

**Projects (36)**

This is for individual projects such as Django Packages, DjangoProject.com, and others.

**random 5**

- **django-facebookconnect**: Use facebook connect in your Django project
- **django-cube**: A Facebook Connect backend for use with django-registration
- **django-registration-facebook-backend**: An adapter for using Jinja2 templates with Django.
- **permachart**: Permanent Charts
Pyramid Packages is a directory of reusable apps, sites, tools, and more for your Pyramid projects.

35 packages and counting!

Know of any packages not listed here? Add them now! It's quick and easy.

Or add a grid comparing the features of 2 or more similar packages.

Package Categories

Add-Ons (26)
Pyramid supports extensibility through add-ons.

Application Scaffolding (3)
Development environments are packages which use Pyramid as a core, but offer alternate services and scaffolding. Each development environment presents a set of opinions and a *personality* to its users.

other (3)
Anything else that doesn't fit into the other categories.

Projects (3)
Working open-source examples of Pyramid projects. e.g. KARL Project

random 5

- WebError
  - WebError Error reporting and interactive debugger
  - 1 users

- pyramid_beaker
  - Beaker sessioning bindings for Pyramid
  - 1 users

- pyramid_tm
  - Centralized transaction management for Pyramid applications (without middleware)
  - 1 users

- pyramid_xmlrpc
  - XML-RPC helper code for the Pyramid web framework
  - 0 users

- pyramid_jqm
  - JQuery Mobile starter scaffolding for Pyramid
  - 1 users
opencomparison.org

- Competed in Django Dash 2010
- More sites coming soon!
  - Plone
  - Flask
  - Python!
- A year of expansion and code cleanup
opencomparison.org

Largest sprint group at PyCon 2011!
Many good people

Most downloads

Maintained?

Much recent work

Many good people

Django Social Auth is my current registration preference

Pyramid Packages is a directory of reusable apps, sites, tools, and more for your Pyramid projects.

36 packages and counting!

Know of any packages not listed here? Add them now! It’s quick and easy.

add package »

Or add a grid comparing the features of 2 or more similar packages.

add grid »

Featured Package

Stargate

WebSocket support for pyramid

Added 2 hours, 54 minutes ago

How to get your Pyramid package featured here

Do you have a package that you’d like us to feature? Does it have tests? Are the docs on Read the Docs?

If so, tweet at @Open_Comparison with a link, and make sure the description field in your repo has been filled out.
I ❤️ Open Comparison

• More OAUTH and OpenID Support
• Improved search
• Language neutral to support other tools
• Better caching
• Additional RSS feeds
• Give us more hard metrics please!
Business Model

???

.
Business Model

• Consulting for Open Comparison
• Enterprise Support?
• Ideas anyone?
Results?
Self-sustaining Python ecosystem
Critical Packages Breakdown

Today

• A number of critical Python Packages vanish
• Various build scripts fail
• Replace from caches/backups
• Domain Knowledge is gone
Critical Packages
Breakdown

Future

- A number of critical Python Packages **don’t** vanish
- Various build scripts **continue**
- **Domain Knowledge remains**
Repercussions

• Annoyance
• Ability for Python to move forward HALTS
• Social Issues
Repercussions

Future

• Complacency about stability of ecosystem
• Ability for Python to move forward continues
• **What** Social Issues?
The Future?
The Ideas

- Paid Community Manager
- PSF project incubation
Shoot them down!
Paid Community Manager

• If the PSF doesn’t do it, there is already PyPI
• Maybe the PSF shouldn’t be involved
• Ubuntu didn’t debate the position
PSF Project Incubation

This is not cheap!
At least $15K per incubation
PSF Project Incubation

Problem

This is not cheap!
At least $15K per incubation
PSF Project Incubation

• Already exist, just not with the PSF
• How much produced code comes out?
• Imagine the energy of a start-up giving back!
• Is happening already so PSF ought to profit...
Thanks Github!

http://octodex.github.com/#collabocats
Questions?