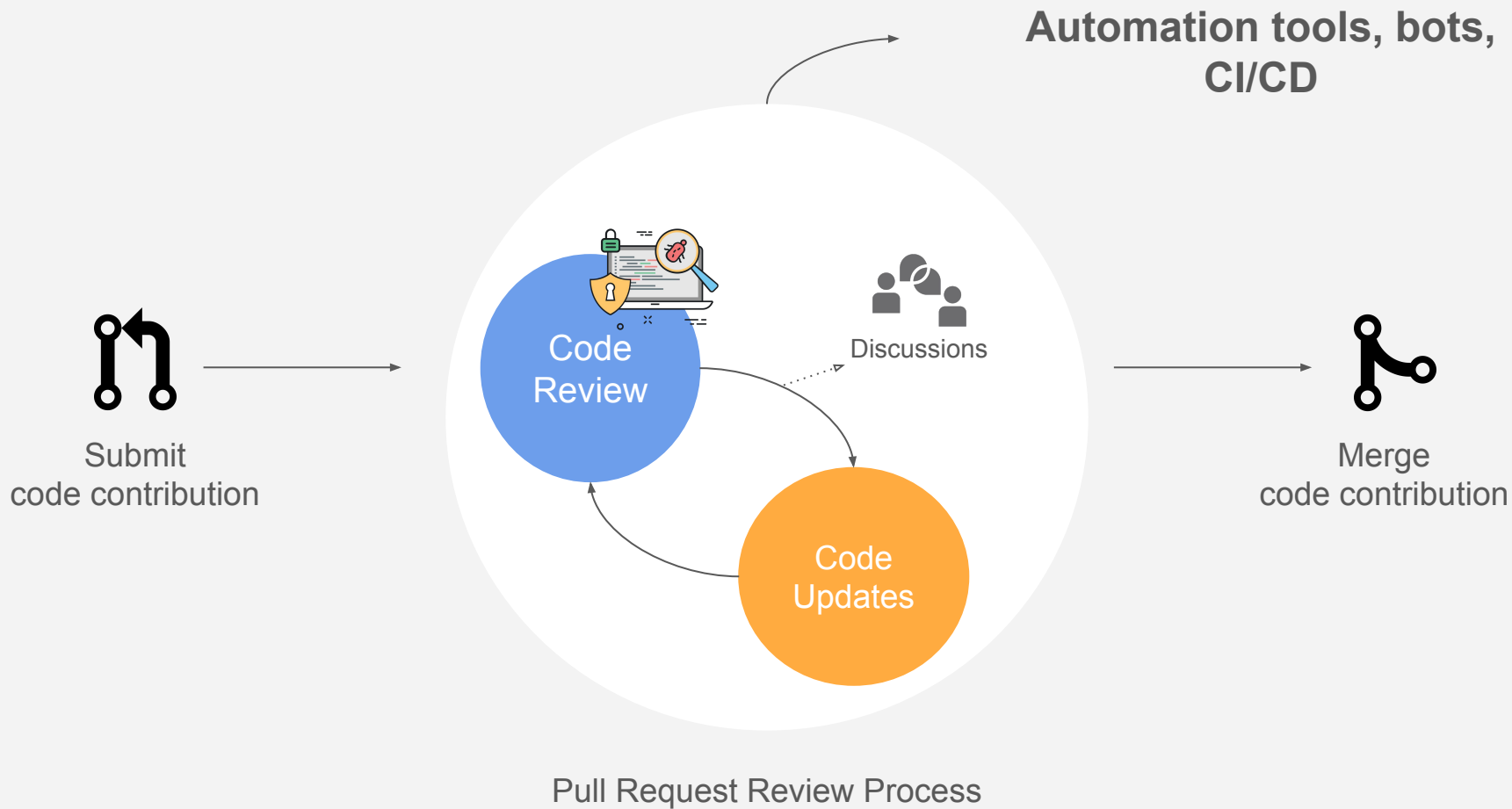


How people really use GitHub Actions

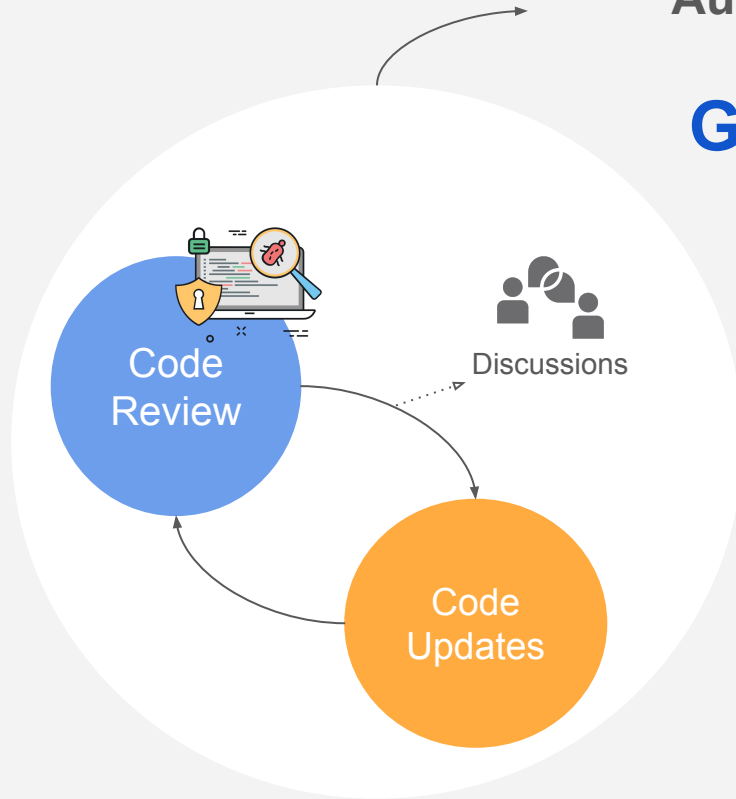
Mairieli Wessel
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Submit
code contribution



Automation tools, bots,
CI/CD,
GitHub Actions



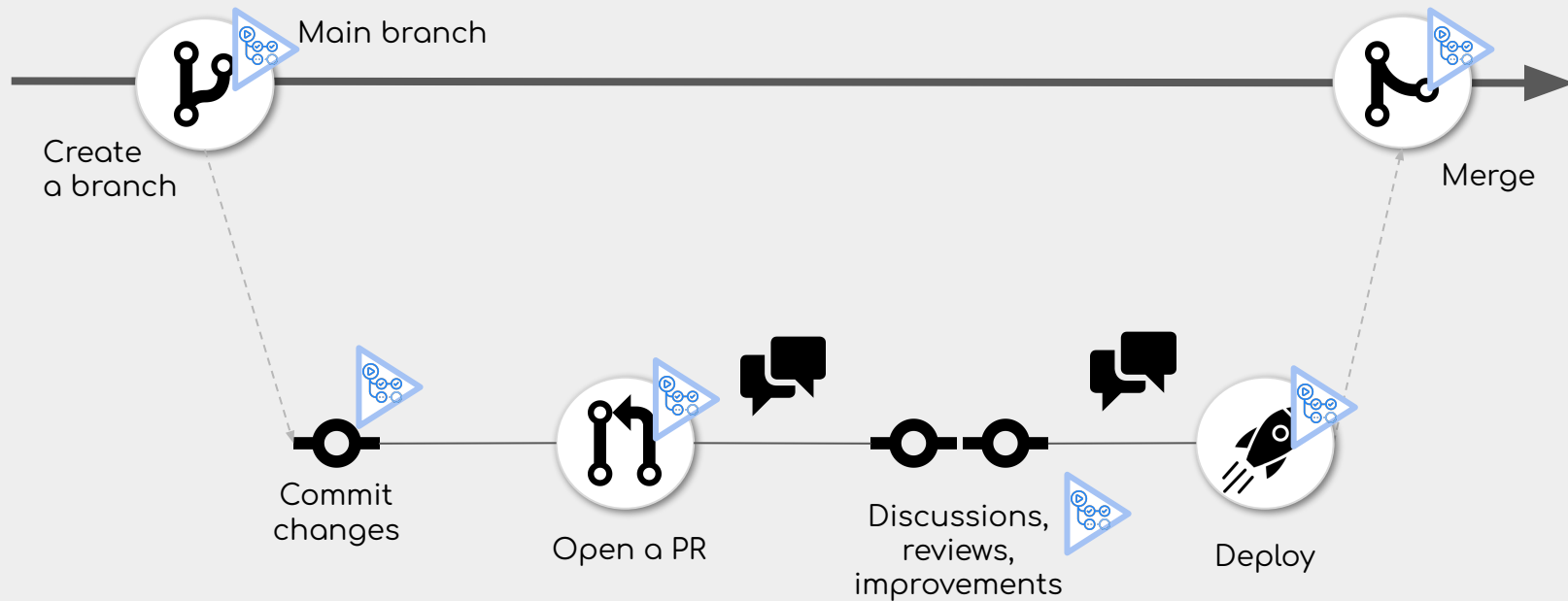
Merge
code contribution

Pull Request Review Process

GitHub Actions

An event-driven API to automate development workflows.

GitHub Workflow automation with **GitHub Actions**



The `Gammapy` example: Greetings action

```
name: Greetings

on: [pull_request, issues]

jobs:
  greeting:
    runs-on: ubuntu-latest
    steps:
      - uses: actions/first-issue-greeting@v1
        with:
          repo-token: ${{ secrets.GITHUB_TOKEN }}
          issue-message: 'Merci! We will respond to your issue shortly. In the meantime, try import gammapy; gammapy.song(karaoke=True)'
          pr-message: 'Graça! We will respond to your pull request shortly. In the meantime, try import gammapy; gammapy.song(karaoke=True)'
```



github-actions bot commented on Nov 24, 2020



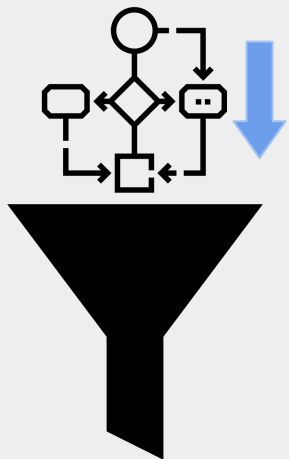
Merci! We will respond to your issue shortly. In the meantime, try `import gammapy; gammapy.song()`



How developers use GitHub Actions

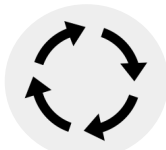
Usage of GitHub Actions

Workflow files from
3,190 repositories



708 Actions

Categories of Actions



A typical GitHub Action is added twice,
and never removed or modified.

There are exceptions!

Publishing

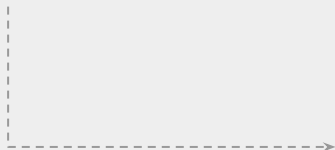
Code quality

How developers discuss
about GitHub Actions

Discussions about GitHub Actions



Manual
analysis of
209 issues



GitHub Actions
Maintenance



Announcement of
GitHub Actions



Requesting GitHub
Actions to be
implemented



Switching CI/CD
tools to GitHub
Actions



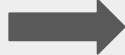
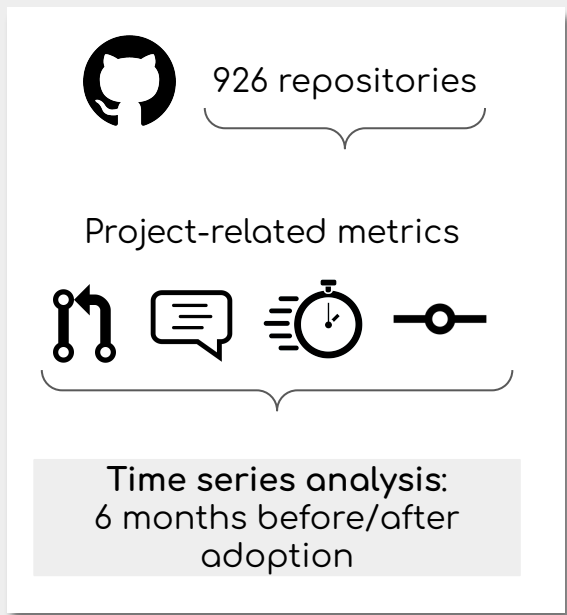
GitHub Actions
problems and
frustrations




Others

The impact of using GitHub Actions

Impacts of GitHub Actions usage

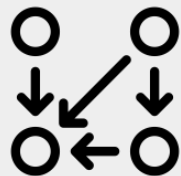



Increase
Rejected
Pull Requests


Decrease
Commits of
Merged Pull
Requests

Perception vs. Reality

Adopting [GitHub Actions](#) is taking a [dependency](#) not a tooling!



Using [GitHub Actions](#) might also impact the [community and project dynamics](#)!

What can you do?

Measure the difference!

If you are considering using [GitHub Actions](#)...

1. ... and you care about performance → measure **changes in the code**
2. ... and you care about community → measure **changes in developers' communication**

How people really use GitHub Actions

Thank you!

Questions?



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