

Föderiertes forgejo

Community in der eigenen Hand

Meissa GmbH

- Sitz in Reutlingen | < 10 Mitarbeiter
- Fokus: DevOps, Cloud & Security
- Gemeinwohl & Datenschutz
 - OpenSource Ausbildung
 - Plastiksammeln

forgejo



Das Pattern

- **Unser Invest:** 500T in den letzten 10 Jahren
- **Unser Return:** Community
- **Aber:** Community ist an die jeweilige Plattform gebunden!

Problem: Plattform Bindung

 11.08.2022

 12

Xing schafft Gruppen ab – der Anfang vom Ende?

Von Johnny | Netznews, Social Media-News, Webentwicklung

Xing hat am 11.08.2022 seine Mitglieder darüber informiert, bald alle Gruppen löschen zu wollen. Das ist für viele Administratoren, die

Problem: Plattform Bindung

Drastisch weniger Interaktionen: Neue Probleme für New York Times auf X/Twitter

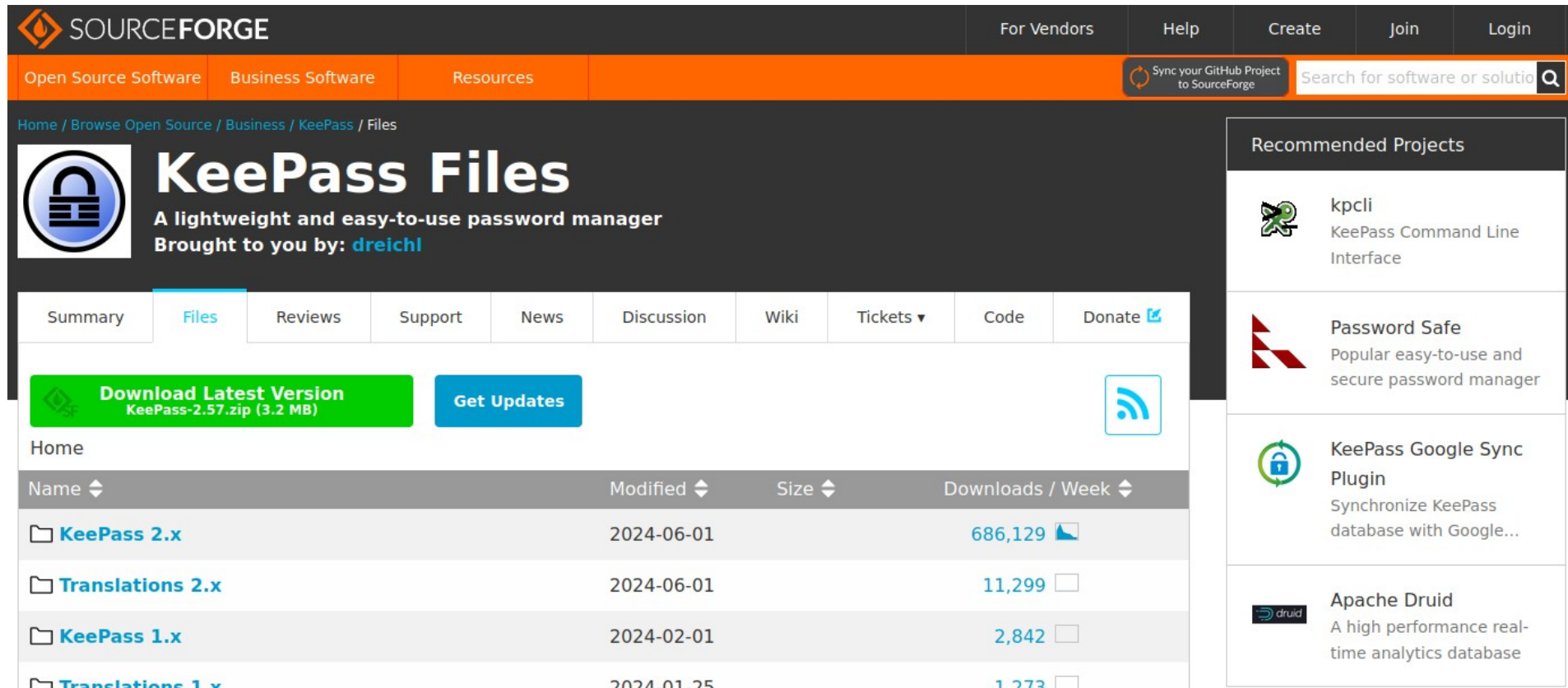
Beiträge mit Links zur New York Times laufen auf der Kurznachrichtenplattform X viel schlechter. Eine Erklärung gibt es nicht, das passt aber zu einem Muster.

Lesezeit: 3 Min.

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Problem: Plattform Bindung



SOURCEFORGE

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KeePass Files

A lightweight and easy-to-use password manager
Brought to you by: dreichi

Summary | **Files** | Reviews | Support | News | Discussion | Wiki | Tickets ▼ | Code | Donate

Download Latest Version
KeePass-2.57.zip (3.2 MB)

Get Updates

Home

Name	Modified	Size	Downloads / Week
Folder KeePass 2.x	2024-06-01		686,129
Folder Translations 2.x	2024-06-01		11,299
Folder KeePass 1.x	2024-02-01		2,842
Folder Translations 1.x	2024-01-25		1,273

Recommended Projects

- kpcli
KeePass Command Line Interface
- Password Safe
Popular easy-to-use and secure password manager
- KeePass Google Sync Plugin
Synchronize KeePass database with Google...
- Apache Druid
A high performance real-time analytics database

Das Pattern

- **Unser Invest:** 500T in den letzten 10 Jahren
- **Unser Return:** Community
- **Aber:** Community ist an die jeweilige Plattform gebunden!
- **Lösung:** Eigener Server (forgejo) & Förderung

Exkurs: Was ist forgejo?

- **Gogs:**

- Leichtgewichtige git Plattform – in go
- Kleine Community, Entwicklung stagniert

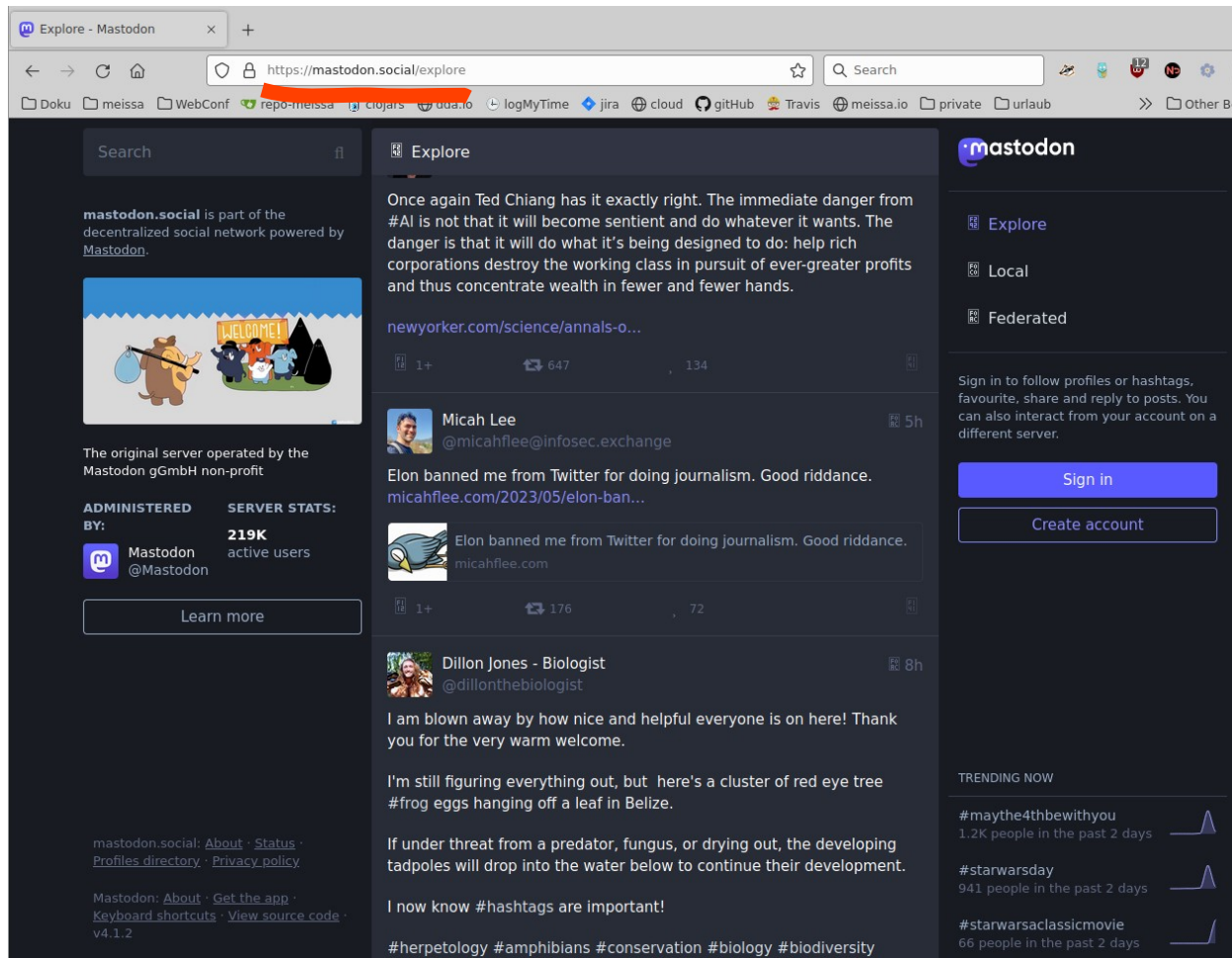
- **Gitea:**

- Community (ca. 1400 Committer)
- 2022 Kontrollübernahme durch Gitea Ltd
- Contribution nur nach Abtreten des Copyrights
- Wandel zu OpenCore

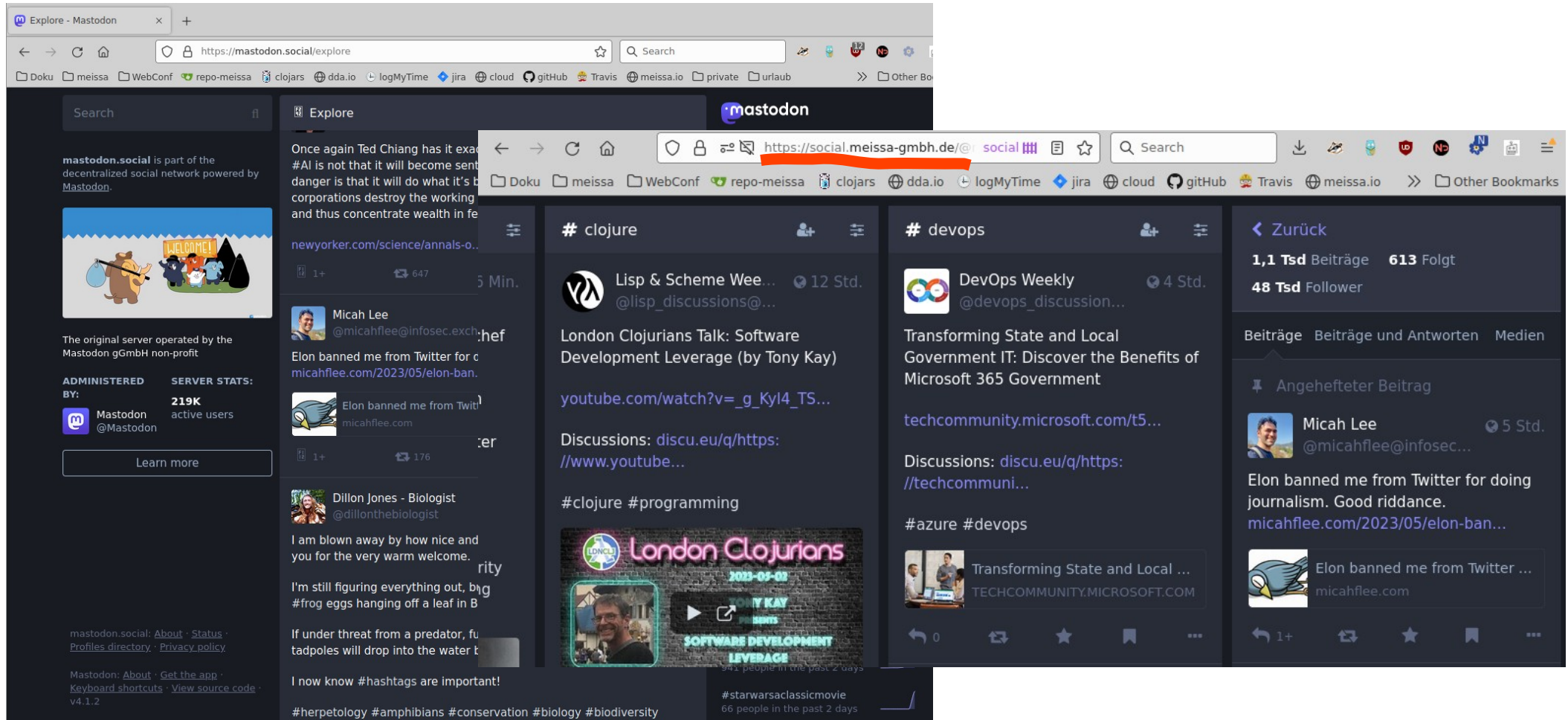
Exkurs: Was ist forgejo?

- **forgejo:**
 - Lebendig (>100 Committer, 1500 PRs/a, 750 Issues/a)
 - Große Instanz codeberg.org als GitHub-Alternative
 - Fokus Stability (LTS Releases & Testabdeckung)
 - Fokus Sicherheit: Gefixte CVEs
 - Fokus Föderierung

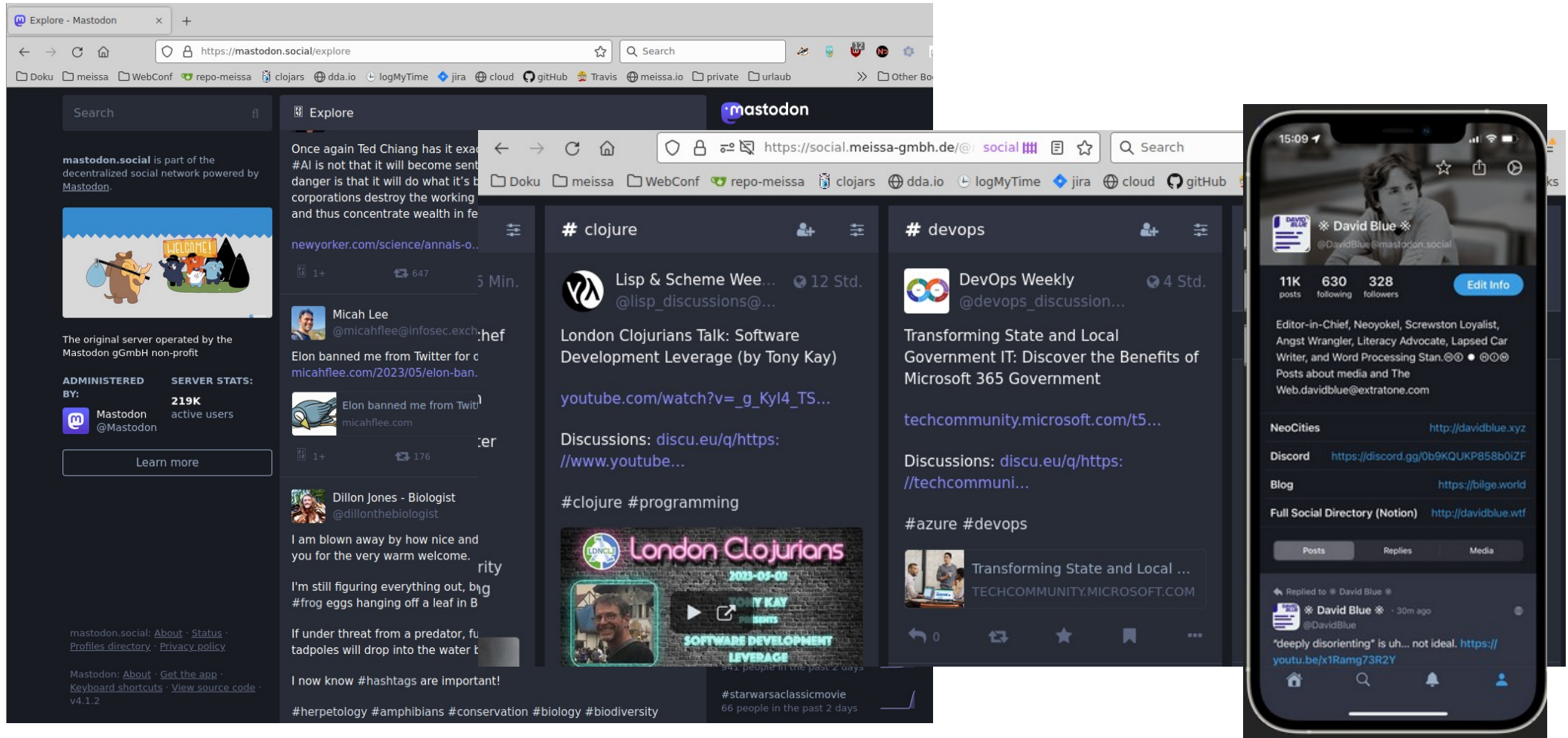
Exkurs: Föderierung / Mastodon



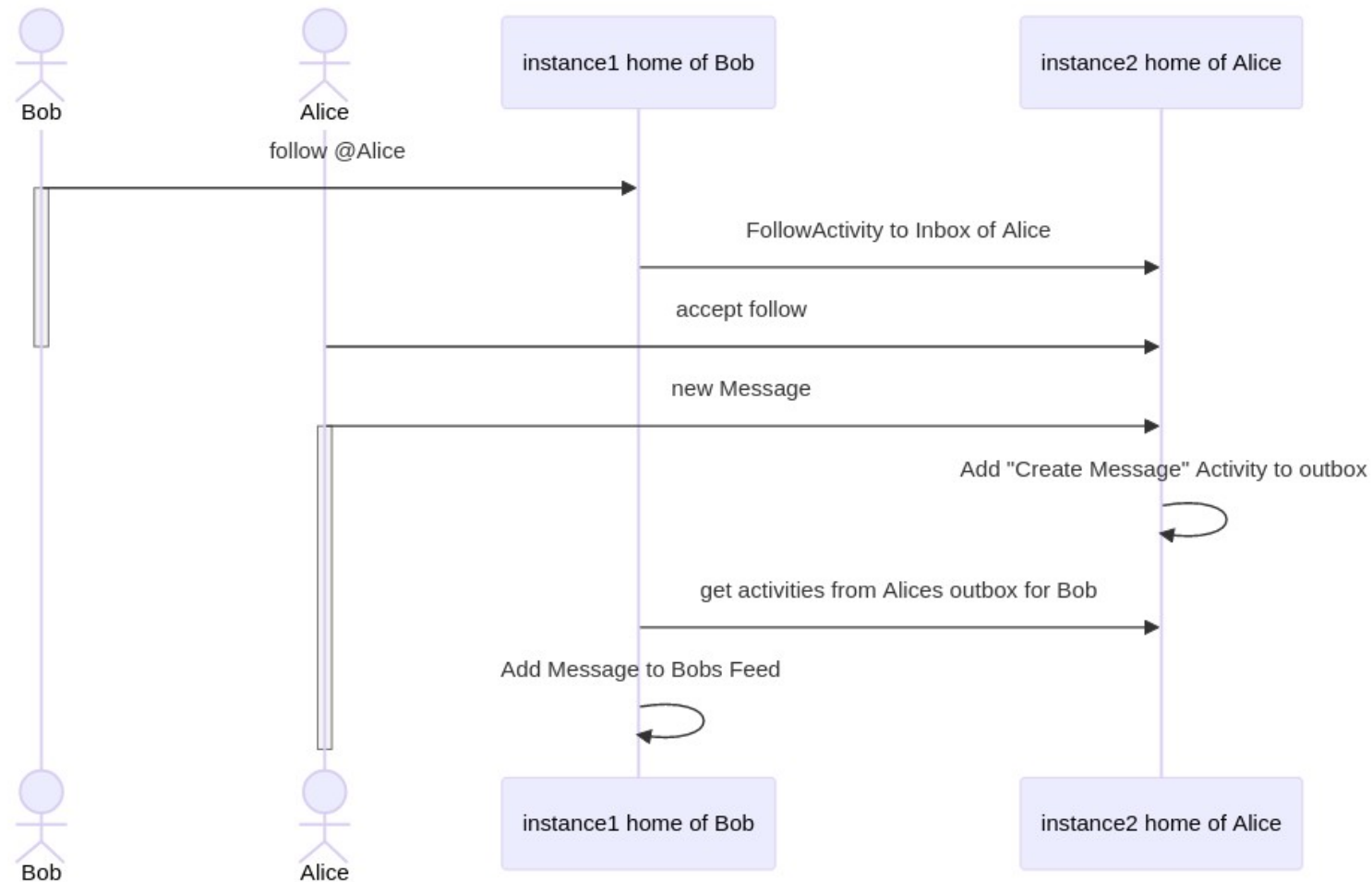
Exkurs: Förderierung / Mastodon



Exkurs: Föderierung / Mastodon



Nachrichten im Hintergrund



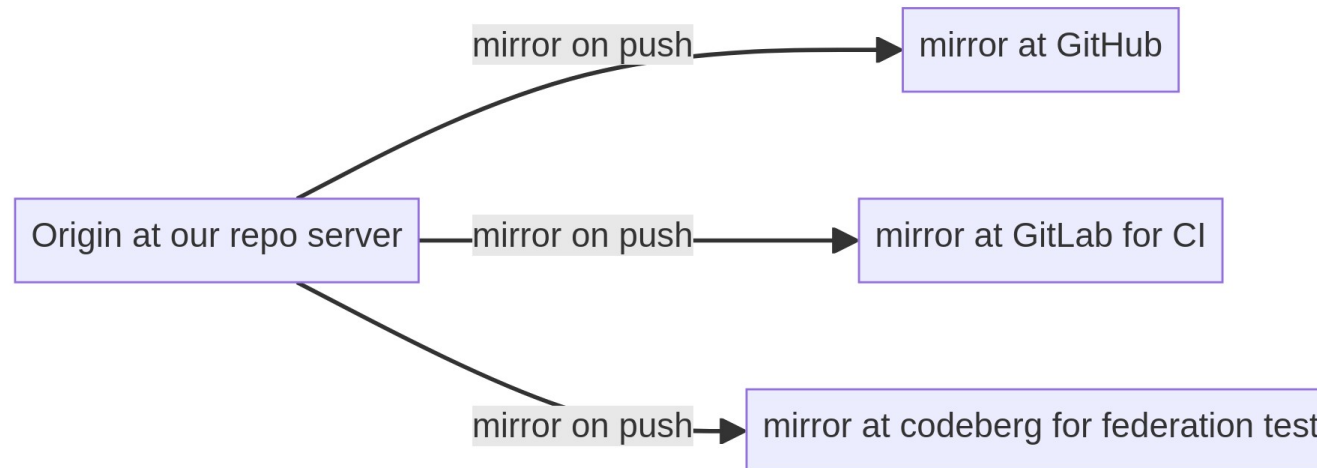
Datenmodell Mastodon / GoToSocial

- Activity-Pub: Protokoll
- Activity-Streams: Das Datenmodell
- Eventual Consistency: Out- / In-Box
- Like, Message, Person, Gravestone

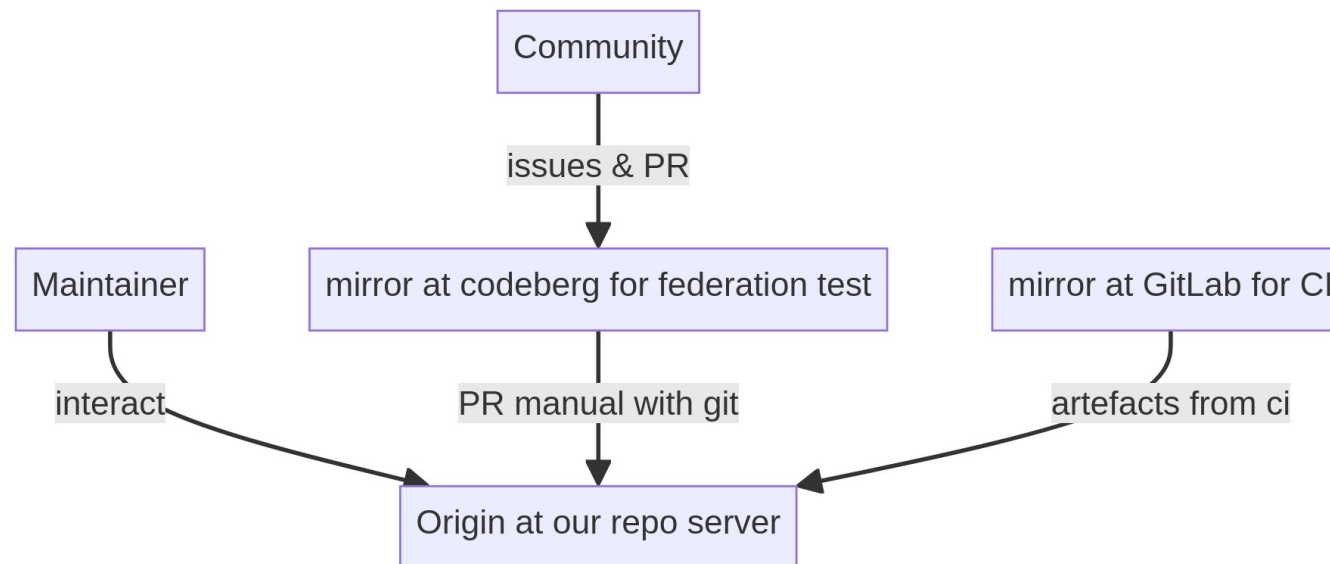
Datenmodell für Git-Plattform

- ForgeFed: <https://forgefed.org/>
- Team / Members
- Project / Repository / Branch
- Issue / Merge- und Pull-Request

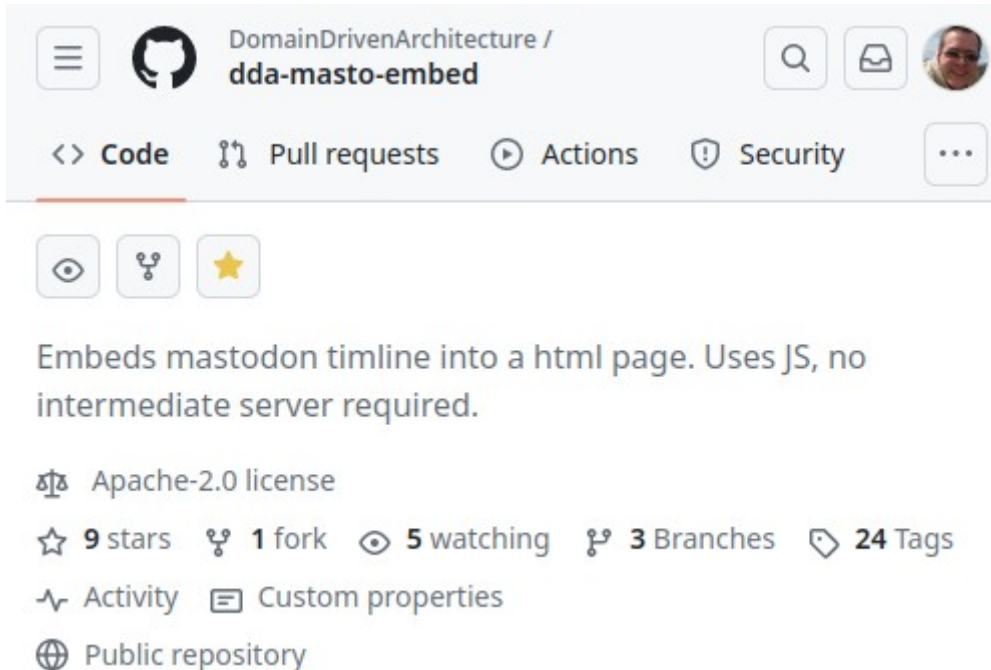
Gefangene Sterne – Problem?



Gefangene Sterne – Problem?



Gefangene Sterne – Problem?



The screenshot shows the GitHub interface for the repository 'DomainDrivenArchitecture / dda-masto-embed'. The repository is a public repository under the 'DomainDrivenArchitecture' organization. It has 9 stars, 1 fork, 5 watchers, 3 branches, and 24 tags. The repository is licensed under Apache-2.0. The description states: 'Embeds mastodon timeline into a html page. Uses JS, no intermediate server required.' The repository is a public repository.

DomainDrivenArchitecture / dda-masto-embed

<> Code Pull requests Actions Security

Embeds mastodon timeline into a html page. Uses JS, no intermediate server required.

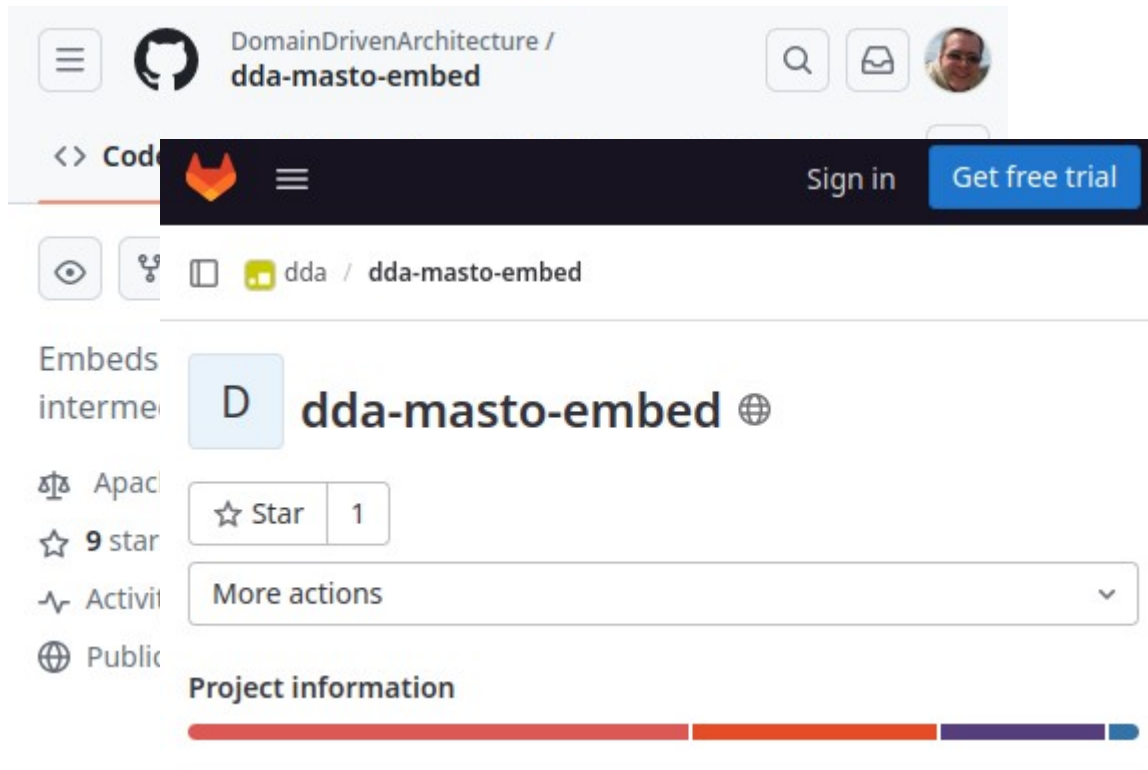
Apache-2.0 license

9 stars 1 fork 5 watching 3 Branches 24 Tags

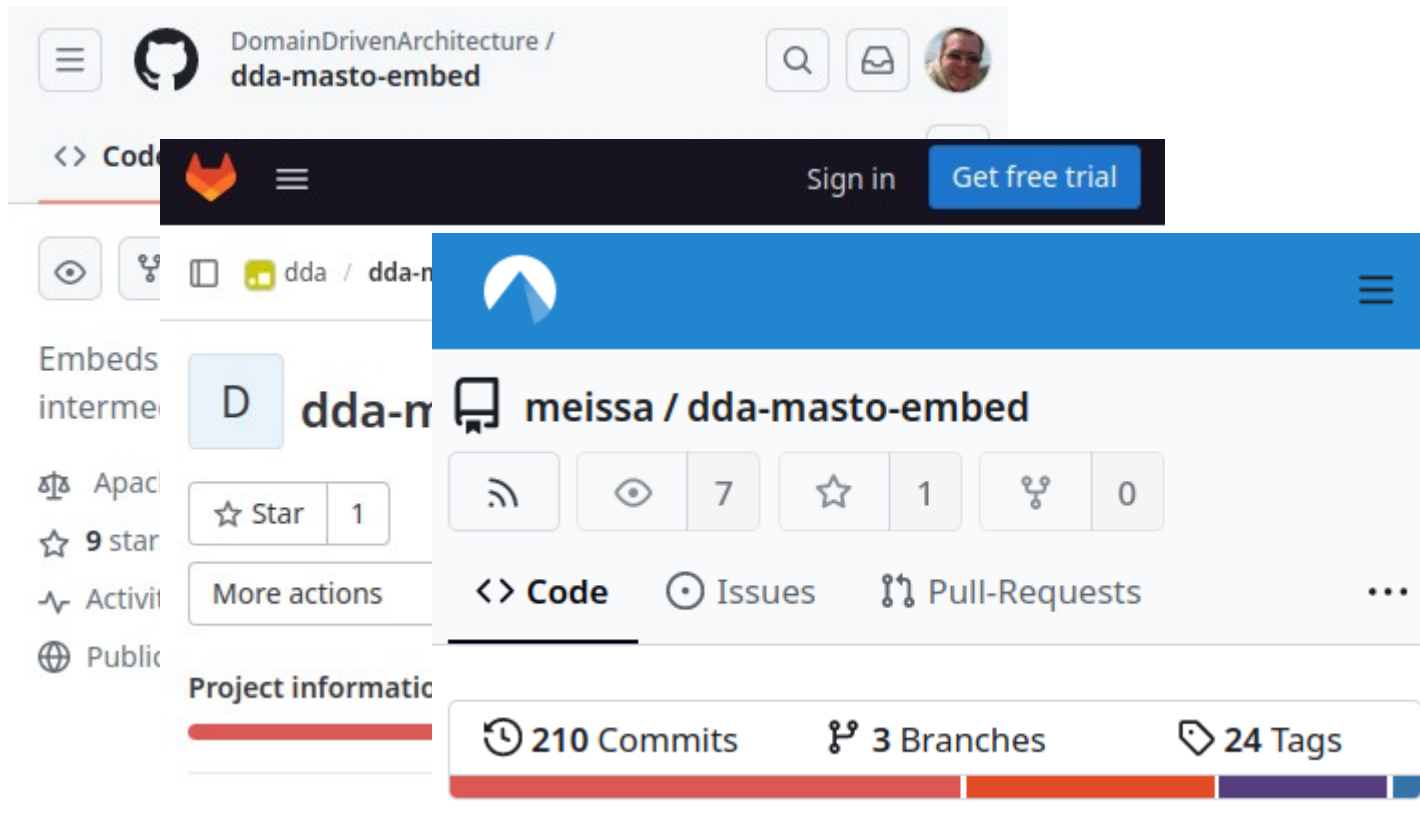
Activity Custom properties

Public repository

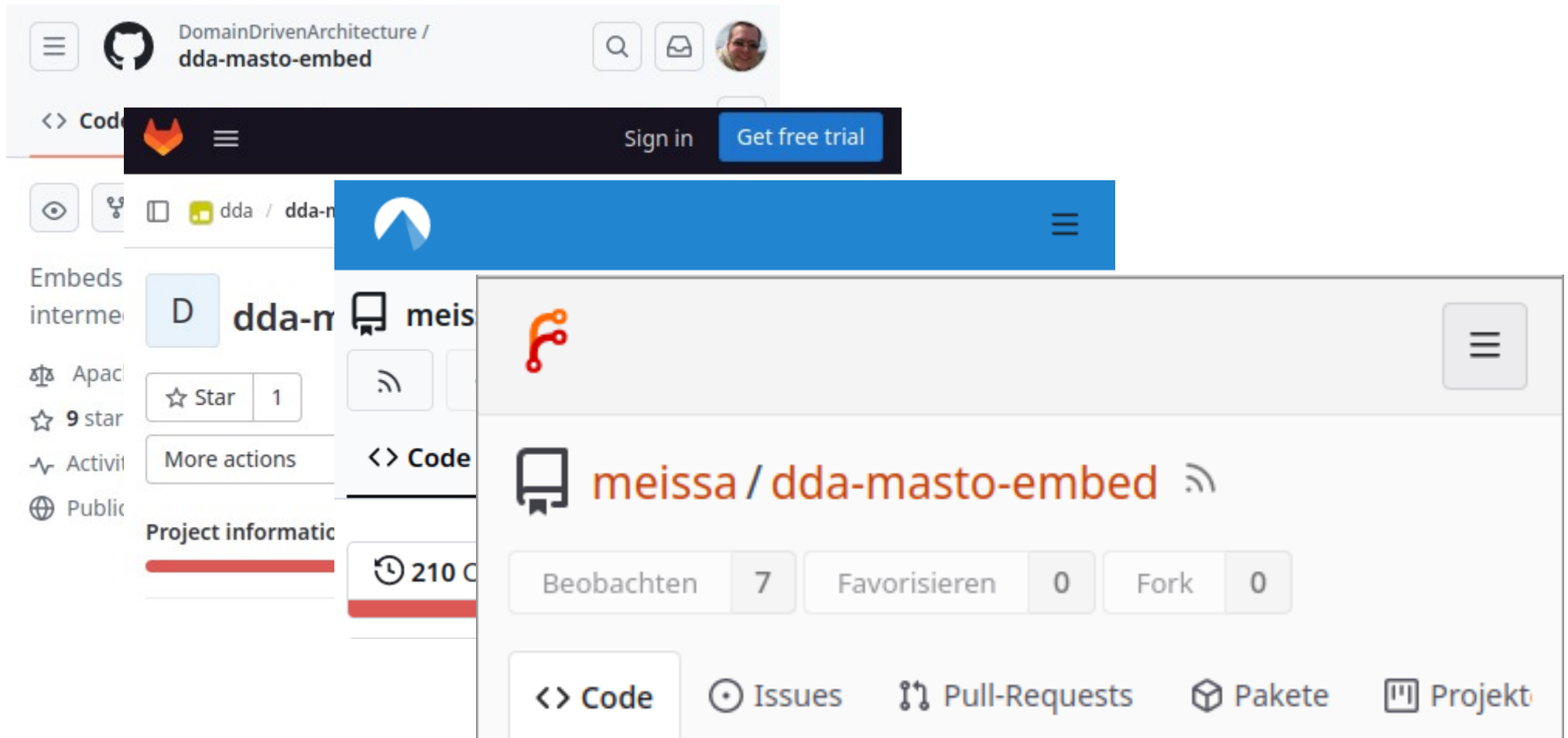
Gefangene Sterne – Problem?



Gefangene Sterne – Problem?



Gefangene Sterne – Problem?



PR: Federated Star

- Commits: 526
- Geänderte Dateien: ~ 60
- Invest: ~ 1200h
- Status: gemerged
- Release: 8.0
- Am: 17.7.2024

<https://domaindrivenarchitecture.org/posts/2024-06-05-howto-federated-stars/>

Federated Star

The image displays two side-by-side screenshots of a web interface, likely a Git hosting service, showing the 'me' user's profile and repository information.

Left Screenshot: The browser address bar shows 'localhost:3000/me/star-me/stars'. The page title is 'me / star-me'. The 'Stargazers' section shows a single user 'me' who joined on Nov 10, 2023. The footer indicates 'Powered by Forgejo Version: 7.0.0+dev-1325-g73cf1e3901 Page: 8ms Template: 2ms'.

Right Screenshot: The browser address bar shows 'localhost:3000/me/federated-star-me'. The page title is 'me / federated-star-me'. The 'Quick Guide' section provides instructions for cloning the repository and creating a new repository on the command line. The footer indicates 'Powered by Forgejo Version: 7.0.0+dev-1325-g73cf1e3901 Page: 9ms Template: 2ms'.

Like-Activity

```
{  
  "id": "https://distant.instance/api/v1/activitypub/user-id/1/outbox/12",  
  "type": "Like",  
  "actor": "https://distant.instance/api/v1/activitypub/user-id/12",  
  "object": "https://local-instance/api/v1/activitypub/repository-id/1",  
  "startTime": "2024-01-05T23:00:00-08:00"  
}
```


Sicherheit

- Threat Analysis:
 - SQL-Injection
 - Knock foreign Http-Servers
 - DOS by Rate / Slowlories
 - Replay & Replay out of Order
 - Malicious Activities / Forge / Controlled Forge
 - Saturate Activitiy Rate

<https://codeberg.org/forgejo-contrib/federation/src/branch/main/threat-analysis/threat-analysis-like-activity.md>

Federation Capabilities

- Actor Server
 - **Done: Discovery, Cache**
 - Open: Moderation
- Actor User
 - **Done: Inbox, Mapping federated user**
 - Open: Outbox, Moderation, Follow, CreateNote
- Actor Repository
 - **Done: inbox, like**
 - Open: outbox, follow, PR, ...

Federation Capabilities

- Security
 - Done: Create keypair, **Threat Mitigation**
 - Open: Signed Activities, HTTP signature
- More Actors Issues, Team, Orga
- Interoperability
 - **In Progress: forgejo**
 - Open: GitLab, GitHub, Gitea, Bitbucket, gotosocial, mastodon

Signatures – Problem?

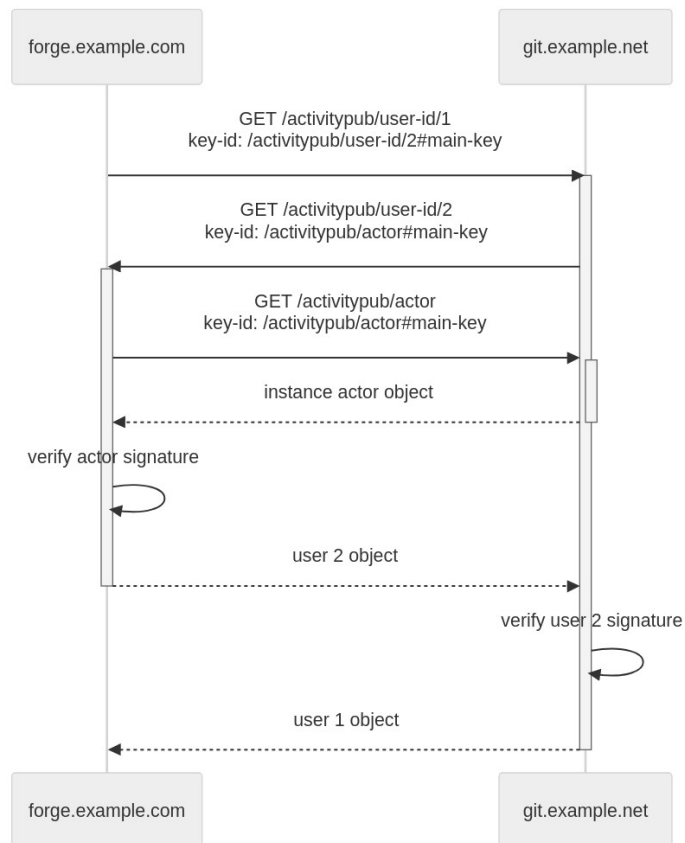
- Malicious Activities (Benutzer <> Irgend jemand)
 - Benutzer sendet ein Star
 - Irgend jemand sendet darauf ein Undo-Star
- Unclear Moderation (wen blocken?)
 - Malicious Actor
 - Malicious Instance

PR: Enable HTTP signatures

- Commits: 34
- Geänderte Dateien: ~ 22
- Status: merged
- Release: 11
- Am: 3.4.2025

<https://codeberg.org/forgejo/forgejo/pulls/7035>

Keys für Signaturen beschaffen



Federation Capabilities

- Security
 - Done: Create keypair, **Threat Mitigation, HTTP signature**
 - Open: Signed Activities
- More Actors Issues, Team, Orga
- Interoperability
 - In Progress: forgejo
 - Open: GitLab, GitHub, Gitea, Bitbucket, gotosocial, mastodon

User Activity Following – Problem?

- Follow Mastodon- / GoToSocial-Users from Forgejo?
- Follow Forgejo-Users from Mastodon / GoToSocial

PR: Federated user activity following

- Commits: 114
- Geänderte Dateien: ~ 65
- Invest: ~ 750h
- Status: start merge
- Release: ?
- Am: ?

<https://codeberg.org/forgejo/forgejo/pulls/4767>

Follow-Activity

```
{  
  "type": "Follow",  
  "actor": "https://distant.instance/@user",  
  "object": "https://local-instance/api/v1/activitypub/user-id/1"  
}
```

Note-Create-Activity

```
{  
  "type": "Create",  
  "actor": "https://distant.instance/@user",  
  "to": ["https://www.w3.org/ns/activitystreams#Public"],  
  "cc": ["https://local-instance/api/v1/activitypub/user-id/1"],  
  "object": {  
    "type": "Note",  
    "content": "The Content!",  
    "url": "https://distant.instance/feed/3249023203"  
  }  
}
```

Federation Capabilities

- Actor User
 - Done: **async Inbox**, Mapping federated user, **Follow**, **CreateNote**
 - Open: Outbox, Moderation
- Interoperability
 - In Progress: forgejo, **gotosocial**, **mastodon**
 - Open: GitLab, GitHub, Gitea, Bitbucket

Roadmap

- **Unstar**
die Herausforderung sind gelöst :-)
- **Federated repo search / discovery**
Herausforderung: Instance Moderation, Cache Management, ForgeFed Vokabular
- **Federated Issues**
Herausforderung: User Moderation, ForgeFed
- **Federated Prs**
Herausforderung: CI, Encryption, ForgeFed

Fazit

- Sichere Förderung ist ein dickes Brett
- Die Forgejo Community ist cool & Förderung ist im Scope.
- Forgejo Support & Service:
Sprecht uns gerne an

URLs und Quellen



[forgejo-contrib/federation](#)



[meissa/forgejo](#)



[meissa/plastik](#)