

“Privacy & Trust Enhancing Technologies”
<https://nlnet.nl/PET/>

* unlimited

Abstract: Can you explain the whole project and its expected outcome(s).

"redaktor" is your free and open-source, self-hostable multimedia CMS for the Fediverse.

It aims to provide a decentralized alternative to existing blogging platforms and hosting services

such as Medium, WordPress, Google, tumblr and twitter.

It dreams of becoming a provider for Art, Knowledge and an honest political debate.

redaktor is a web content management system to setup your social connected websites in minutes.

When users create or join a redaktor node (easy to install, extensible generic ActivityPub Server), they can upload, organize and enjoy all their own media items. They can build rich stories out of it and share clearly visualised: publicly, in closed groups or privately.

They can discover new content, follow others and intuitively work together (e.g. for the benefit of collaborative translation and verification).

redaktor is federated with all the possibilities of ActivityPub, the world's leading federated social web standard (Server to Server and Client to Server).

That means that users can share content with users on other nodes.

In the future users can decide for the generic client or even use specialized clients (mobile, more content-type-specific etc.) with redaktor.

Humans keep control over their data and connections.

Nobody is standing between the "users" and their friends to commit surveillance capitalism where user-data depends on a handful of service providers.

By building redaktor, our goal is to make modern web publishing more accessible, ethical and decentralized.

We are a non profit and want to build a german foundation in funding with a strong emphasis on powering the future of ActivityPub, community building, civic participation and democratic governance.

Useful links of last year:

ActivityPub Conference <https://redaktor.me/apconf/>

36c3 recap <https://socialhub.activitypub.rocks/t/reflection-of-the-36th-chaos-communication-congress/447>

Max. 1200 characters

Have you been involved with projects or organisations relevant to this project before? And if so, can you tell us a bit about your contributions?

I worked 20 years as a photojournalist for European major magazines like stern, SPIEGEL, Focus.

I went to pashtun gun factories, stitched soccer balls in Sialkot, flew by ballon across the alps, tried to cover the Tsunami victims, lived with Roma and learned from brazilian landless. Then I did a long project and documentary film about climate refugees in Papua New Guinea.

I think I am capable of hearing voices and understand the codes and codices for our community management.

Already when all the AOL CDs were born I began tinkering my own website.

Since then I have continually worked with web projects in the field of journalism and arts.

But I saw that most of the online media continued to publish in the web like they pressed the type on paper. The future of journalism is participation, collaboration, verification and engagement. With the power of the web.

Pretty early I engaged with the indieweb and ActivityPub communities and after organizing multiple indiewebcamps (e.g. <https://indieweb.org/2016/Berlin>) I was inviting the two W3C Social Community Group chairs to Vlissingen, NL for one week.

In a watertower, Chris Lemmer Webber, author of the ActivityPub specification worked out with me what we can do for the community, e.g. a conference.

We moved to FOSDEM Brussels AP panel together with Serge Wroclawski the co-author of datashards and became friends.

I did multiple Proofs of Concept on ActivityPub ("AP"), for example AP+IPFS likes, an AP+OCAP playground and performant widgets. Soon "redaktor" became the heart- and long term project.

From a technical perspective, I am really familiar with the technologies in use for the software as a TypeScript/JS/full-stack developer and designer.

In 2019 we did the charming ActivityPub Conference in Prague.

To hear the problems of the community and tackle them together with 45 other developers. <https://redaktor.me/apconf/>

After attending the 36c3 I will be at Offdem for a day and we plan a one week virtual conference ahead the Fediverse Conference in September, La Lleialtat Santsenca, Barcelona.

It is important that the developer community of ActivityPub meets once a year to talk about the future and the tricky parts of interoperability.

How many ...

42.000 €

Explain what the requested budget will be used for?

**Does the project have other funding sources, both past and present?
(If you want, you can in addition attach a budget at the bottom of the form)**

We'd like to request a 42.000€ grant.

14.000€ would serve to pay the work and organization of 2 ActivityPub conferences and Sebastian's work for future extensions of the protocol and as an anti-harassment consultant.

28.000€ would enable all committers to finish the project with designing the complex ActivityPub widgets and the maker widgets (grid, typo, color) which extend the protocol.

It will ensure that the work towards redaktor's next project goals flows in a sustainable way.

The running costs are covered by the amount of donations we get each month, currently 200€ (additionally we plan crowdfunding).

Compare your own project with existing or historical efforts.

Historical efforts include

Hubzilla

While various blogging tools use proprietary or non standardized protocols (which is bad) Hubzilla is a blogging tool implementing Fediverse protocols but the core ZOT Protokoll reaches only 7000 users and some instances became inactive and the user experience is still served by a "rudimentary" interface (so contributions dropped).

indieweb readers

They don't fit the whole Fediverse because they implement webmentions, micropub, websub and promote the selfdogfood principle which is fine for people who can code and want to work on a usercentric solution.

They would work well together with redaktor though.

wordpress

Like redaktor, wordpress is also a full featured Content-Management-System and content-sharing platform.

It was started long before redaktor and supports different kind of content too, like images, text and video. However, the overall federation UX is fragmented because

we can only rely on limited plugins. When we want to create an open, trustworthy and reliable internet we need a way to specify 'protocols' in the core. Federation affects many UIs and we want to achieve the maximum of interoperability.

Centralized services

Different commercial, centralized services currently exist to share and publish multimedia stories, e.g.

- medium.com
- Google+ (now priced)
- Tumblr

Like these, redaktor offers a web application and some mobile/desktop apps to publish. Typical features you would find on these sites, such as favorites or your timelines are also supported in redaktor.

The main differences are that:

- These services are run for profit, by US companies and rely on closed source software and technologies. Huge commercial platforms frequently misuse the data of their users. The underlying problem is centralization of user-data.
- Most analyze your search data while redaktor's ethical bots work permanently in the background on your server to find your interests in 3 million ActivityPub accounts.
- Like Metrics are putting a pressure to young people and algorithms spread fake news while redaktor's emphasizes reactions and the machines are working for you.

We strive for maximum interoperability with funkwhale (audio), mastodon (short messages), peertube (videos), pixelfed (photos) or nextcloud/SOLID (storage).

While many of redaktor's modules can be used "standalone" we really want to keep self-hosting fun and deliver a modern multimedia experience made for today's web. Creating awareness and giving a clear view over publicity, trust and privacy in the network.

It is Open Source and free for everyone or pay-as-much-as-you-want if you find our self hosting support or user freedom valuable.

redaktor helps you with telling your stories.

Create and design your different topic or community pages.

Publish to them and federate your pieces at the same time.

We are also in contact with two webhosters to lower the barriers for newcomers.

“Let's keep things fun”, Christopher Lemmer

[\[what is new/different ?\]](#) *

What are significant technical challenges you expect to solve during the project, if any?

Federation and Trust

The first full featured ActivityPub Server for nodeJS is 60% ready. For reliability, confidentiality, integrity and security we only use node policies and dependencies from people we have met in person and trust.

We have to research and invent solutions to suite complex journalistic workflows. We work together with the creators of the protocol to get a permission system that accommodate our needs.

– Finer trust granularity

To achieve greater control and to create an adequate level of privacy I propose to evaluate solutions like OcapPub with our collective resources and capabilities.

It can also be helpful for licenses and human curated tagging.

User story:

You want to have a nice evening with your friends.

You arrive at the fun location and hand out your hardly acquired car to the valet parking.

But you notice that the parking staff is listening from the rap of another coast.

No worries:

Adjust your privacy key and give them a copy allowing to drive 10 miles/hour for 15 minutes without any sound devices.

– Data Security in Federated Social Networks :

Datashards is a new storage primitive that provides a base for building highly secure applications. Using Datashards, information is not only end-to-end encrypted but also able to be stored and transmitted by untrusted third parties without a risk of surveillance or tampering.

So I propose to implement Datashards in Javascript, including on the web browser. With this implementation, we will be able to bring Datashards functionality to a new class of secure web applications.

I will work with the Datashards developers, Christopher Webber (US, also ActivityPub Specification Author) and Serge Wroclawski (US, FR), to implement the specification as a library and build new programs on top, making the Internet more secure for everyone.

Anti-abuse

Federating data includes a multitude of outside threats and issues that need to be addressed on top of the usual safety considerations.

We have various mechanisms in place to control federation by both the admin and users of redaktor nodes already, however as ActivityPub grows, so does our need to invent new solutions and tactics in response.

Discovery

Search by Trust must be done and we need to finish the UI for human curated tagging.

With a permission system like OCAP described above users can tag the pieces and enrich the meta content. ActivityPub let's us then send a request for modifications on the federation hosts.

Finally we investigate the resources to search between instances. We met people of Sonar at the 36c3. ActivityPub does not specify a concrete transport mechanism and can thus also be applied p2p.

A key of redaktor is that its ethical bots work permanently in the background to find your interests in 3 million ActivityPub accounts.

Portability

We need a convention in the community about how to transfer friends and content between instances for movings. We can make the ActivityPub protocol more trustworthy by investigating permanent decentralized identifiers to claim all your profiles.

We want to create awareness for the Client to Server part for the portability of clients. We need the "multilanguage" and "topics" aspects of the protocol.

Supporting storytellers

While redaktor is free or pay-as-much-as-you-want, we do want creators to benefit from the work they decide to share with the community.

Regarding micropayments we work together with the ActivityPub people and SNAC (catnet.rocks) and are curious for Retribute development.

Describe the ecosystem of the project, and how you will engage with relevant actors and promote the outcomes?

A fundament for our ecosystem is the existing fediverse of ActivityPub servers. This means projects like mastodon, funkwhale, PeerTube, PixelFed, openEngiadina and soon discourse.

Together with other implementors we pledge for maximum interoperability by documenting the use of the AP protocol and our extensions.

We will support meta initiatives like <https://github.com/jhass/nodeinfo>

Every module is standalone usable and so anyone can use it for their ActivityPub projects.

We are confident that we can establish a platform for a trustworthy political debate, civic engagement and participation.

We target artists, creators, journalists, bloggers and everyone federating their web presence.

Topic based pages also reach e.g. local associations, clubs, pubs, NGOs, activists.

We dream of a growing colourful and diverse democratic spectrum.

I want to reach and collaborate with the community through robust community pages, meetings and good documentation and a safe, easy, fun experience from the beginning.

For 2019 listen to <https://librelounge.org/episodes/episode-10-fosdem-copyleftconf-and-spritely.html> about "sebastian" and watch <https://redaktor.me/apconf/> or <https://conf.tube/accounts/apconf> and follow @redaktor@chaos.social

[which actors will you involve? who should run your solution to make it a success?]
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Attachments: add any additional information about the project that may help us to gain more insight into the proposed effort, for instance a more detailed task description, a justification of costs or relevant endorsements.

Attachments should only contain background information, please make sure that the proposal without attachments is self-contained and concise. Don't waste too much time on this. Really.