EuroSky

Independent Social Media Infrastructure in Europe

Robin Berjon 2025-09-04 Any structural system that is hard to replace, has a great diversity of uses, and enables its operator to enforce rules on its users is **infrastructure** for the community that relies on it, and **critical infrastructure** if its misuse or failure can lead to serious disruptions. Due to its role in informing people, in providing traffic to media, and setting the political conversation, social media fits this description.

We can only have a thriving ecosystem of competing social media services, as well as security and resilience for the European information environment, if the social media infrastructure that we rely on operates in Europe and under European law. That is not the case. In the current geopolitical moment, as Europe faces significant threats from both east and west.

Eurosky has the technology, skills, and popular momentum to deliver such infrastructure quickly and reliably. This makes a European ecosystem of social web services possible that can deliver democracy, innovation, competitiveness, and societal resilience through pluralism, rooting European values in infrastructure that can also thrive globally. Most importantly, this future ecosystem is not merely theoretical; thanks to Bluesky it already has 38 million potential users and is growing fast.

This document details a plan for immediate action that can begin having an impact inside of 2025.

The World We Are Building

We are creating a new world. It isn't built from whole cloth; most of the technology already exists and most of the governance methods are taken from non-digital systems. The resulting proposal, with its protocols, infrastructure, and institutional arrangements, can still feel abstract. To provide a clear understanding of this new digital world, we offer vignettes that illustrate how life works there. This isn't a utopian vision — we are keenly aware that democracy is often messy and doesn't magically fix our problems. But it is a much better world all the same.

A Data Privacy Scandal with Real Consequences

Vienna, 2029

In late 2029, a mid-sized Personal Data Server (PDS) provider — **OneNode** — was found to be secretly mining users' private data for targeted advertising. In the old world of centralised platforms, this would have triggered media outrage, a generic CEO apology, and perhaps a minor fine from a regulator. But in the open, modular world enabled by Euroskys and the AT Protocol community, the response was very different.

Thanks to the **collective covenant** governing the Eurosky network, OneNode's actions were a clear violation of agreed community norms and technical guarantees. After an independent review, the provider was temporarily suspended from the network. This meant it could no longer serve social content to it.

And yet — no users were locked out. **Because PDS services are interoperable**, affected users received a simple prompt: "Would you like to migrate to a new provider?" With a single click, they moved their content to a trusted alternative, with their identities and connections intact.

This event marked a turning point. Not only did it demonstrate the **enforceability of social media governance beyond PR gestures**, it proved that **real accountability and user choice are possible**—when the infrastructure is designed for it.

A new category of journalism

Today's dominant social media companies have complete control over the algorithms that sources information, determines its eligibility, and ranks its relevance. This concentration of power over our attention is incompatible with democratic values of pluralism, and has led to abuses of power.

In a future world in which decentralized social media platforms dominate, <u>a multiplicity</u> <u>of feeds</u> are available, sourced and ranked according to an endless combination of approaches. User-friendly services like Graze Social make feed creation easy for everyone.

A new kind of journalistic curation has grown up around that structural change in how we organize our information: curated feeds of quality journalism as a respected editorial function. This role is already emerging, for example in the work of $\underline{\mathcal{E}}$ ndra Rininsland, a technologist currently with the FT and creator of the $\underline{\text{Verified News}}$ and $\underline{\text{Trending News}}$ feeds.

Advertising Governing Body Debates Privacy Change

Two-sided markets create tremendous power. Whoever gets to operate the marketplace itself is dealing with two captive audiences, both of which need to reach the other and neither of which can decide to leave on its own. That is how today's advertising market is (predominantly) structured and, unsurprisingly, the parties in the middle are making use of that power. Neither buyers nor sellers have any visibility into what happens inside the marketplace, and we know from what has surfaced in court cases that the monopolies in charge manipulate auctions in their own interest. Companies lose billions a year to this arrangement all the while publishers see their work defunded.

The way forward is to have the marketplace operating under strict rules of fairness (of infrastructure neutrality), and the ideal approach to that is to have <u>its stakeholders govern it</u>. For open social media to adhere to its public interest mission, it will need to be sustainable, and advertising will have to be part of that equation.

The headline alludes to the fact that a governing body for adtech will have to make difficult decisions that balance the interests of publishers, advertisers, and people. However, such negotiated outcomes stand a very good chance of being better than anything we currently have.

European Search Index Cracks Down On Friends-For-Pay Scheme

We're building on an existing open and interoperable social media protocol, where people's social graphs can be explicitly used to rank search results based on the people they trust.

Back in the 90s, Google's founders stumbled onto underexploited information: the web's link graph. By ranking results based on the structure of the web's links, they were able to produce a search engine with greater relevance than its competition.

The link graph, which underpins the world's dominant web search engine, has long been gameable by sites that interlink solely to increase their ranking. This has made interlinking information far less valuable.

The social graph that connects people has similar properties to those of the web's link graph, and can also be used for relevance ranking. Indeed, information trusted by people you trust is likely to match what you would consider relevant. And, interestingly, this is much harder to game because people have limited incentives to undermine those they trust.

We're building a world in which a search index — the part of search that takes crawled information and makes it (technically) easy to query and that can then be used for ranking and with a user interface — has been developed as shared public infrastructure augmented by social signals from users' trusted networks. (See the <u>Initiative for Neutral Search</u> or the <u>Staan API</u>.) A powerful aspect of the approach we are taking to open infrastructure is that open infrastructural systems reinforce one another.

The Teletubbies Return!

The internet has been unkind to children in many ways. Children are easy targets of attentional techniques and require safe, curated spaces that are of little interest to incumbent monopolies as they are challenging to monetise with their preferred methods.

Understandably, this has led to a flurry of regulatory measures aimed at limiting children's access to online content. However, the internet was envisioned as a source of knowledge and wonder, and age-gating to keep children from the worst of what we have shouldn't be the only solution: we need online spaces that are *beneficial* for children.

AT Proto supports composable moderation, which means that instead of relying on a single source of content moderation from a monopolistic platform, multiple sources can collaborate to moderate content. This makes it possible for any content to be age-labelled. Creating new feeds is open to all, such that curated child-directed content is possible — for instance, by public broadcasters or other parents. And because the protocol is open, anyone with some programming chops can create a child-directed product that builds upon of these capabilities and incorporates additional smart features such as limiting duration or engagement.

Our headline proudly announces that the hit children's series *Teletubbies* is scheduled for a (second) reboot. The headline doesn't mention that this happens through the BBC's social media presence, with content labelled correctly and syndicated through a variety of child-friendly feeds — in this future, every parent knows that.

AT Mobile OS (ATMOS) Gains Ground In Mobile

<u>Every time we load a web page</u>, we are setting up a small, ephemeral application that we can interact with until we navigate away. This model has huge potential to offer a significantly better experience than we get from installed apps, especially now that AI agents can interact with multiple systems simultaneously without incurring excessive UI complexity.

This opens the door for people to use computers centered on tasks rather than applications. To offer an example, this is the difference between the task of choosing a picture from your collection, editing and inserting it into a document, versus the application-centric approach of going to your photo management app to select a picture, exporting it, opening it in your photo editor, exporting the result, and bringing that edited version into your document editor.

At present, the web's security model is a poor fit to compose services together. The approach that ATproto has taken allows for small, single-purpose applets that are good at carrying out a single task—then composing them based on needs.

The headline is reporting on the gains made by ATMOS (AT Mobile OS), an imagined operating system built entirely atop this exact model. Such a system has the potential to break open app stores and liberate developers from the 15-30% tax that Apple and Google arbitrarily collect from them. The transition to that world can be gradual, starting with a social media app and eventually taking over the system.

Publishers Alliance Commits To Zero-Paywall During Elections

News media have long faced a difficult tension. Many people receive news from an aggregator that gives them access to multiple sources, but aggregator offerings such as Apple News, Google News, and Facebook News, rarely offer publishers good deals, lowering advertising revenue and decreasing subscription conversion rates.

To address this, in 2026, a group of enterprising publishers and technologists joined forces to launch *Lede*, a news aggregator built atop shared social media infrastructure and governed by and for participating publishers. On *Lede*, publishers rely on a shared advertising system that can support aggregated advertising deals, and offers a bundled subscription system paying publishers a prorated chunk based on what people read. This system respects people's privacy, does not share hard-won audience data with third parties, and offers users real options to shape what personal information they share with publishers and advertisers.

Lede stories are published on ATProto and are natively social. They can be integrated into multiple formats in various social experiences. Search is built-in and exposed through the shared index, which facilitates SEO, and facilitates easy access to original content while restricting generative AI content on the same platform.

While the media may never return to its pre-Internet profitability, in this world journalism is funded and revenues are sustainable.

In our headline, the publisher multistakeholder group in charge of governing *Lede* and its infrastructure has reached an agreement to systematically offer unpaywalled articles during elections in all relevant jurisdictions — because they can afford to.

Internet Community Opens Bowling Alley

The ActivityPub protocol (that powers the Fediverse and partly Mastodon) is well suited for "human-sized" communities that have an existing but lesser connection to the wider world — something that many people find highly desirable but that isn't offered by legacy social media companies. One great use case is social networking for a city or neighbourhood. ActivityPub and AT Proto complement each other well, and in fact, running the former on top of the latter makes for a powerful combo that enables just this sort of use case.

Youth Assembly Remains Torn Over Proposed Anti-Bullying Measures

Young people often understand the problems that the digital world creates for them much better than adults do. Despite this, they are rarely empowered to take an active part in the world that affects them. Instead, their lives are governed entirely by a tussle between Silicon Valley product directors and policymakers.

Our approach to social media makes it possible to establish governance for distinct spaces — which is to say that everything from what kinds of content can be posted to what type of content moderation is enforced can be decided by a given group. This offers the possibility of youth-governed social media platforms, accessible only to specific age ranges and governed by them.

In this headline, we imagine a world in which the governance of this system takes place through a democratic assembly of the youth network's users. Establishing democratic self-governance doesn't make hard problems disappear, but it does empower the affected parties to make difficult decisions for themselves and to learn democracy by doing democracy.

CSAM Prevention Struggles Persist; New Research Promising

Combating the sharing of Child Sexual Abuse Material (CSAM) is a persistent challenge for social media platforms. Platforms should have a moral obligation to protect victims, but often struggle to manage this duty: moderating CSAM content takes a toll on the people charged with stopping it and those who distribute it are often very practised at evading interception. CSAM also puts social media operators in legal jeopardy, which for small operators may be existential.

Rather than requiring every social media operator to reinvent CSAM prevention from scratch, an interoperable protocol makes it easier for platforms to pool resources to combat a shared problem. We are already working on a common infrastructure for precisely this purpose.

The headline reflects the fact that even with a better, shared system, some challenges will remain, but hints at the fact that shared, open research is our best bet to tackle them.

Emergency Social Messaging Gets Upgrade In Wake Of Floods

Disinformation is a problem at the best of times, but it is both particularly rampant and deadly during emergencies. People often use social media to coordinate during emergency situations, but this has increasingly come into conflict with the tendency of legacy platforms to downrank content that is useful in emergencies while amplifying sensational information that is deceptive or false.

ATProto offers potential improvements. First, every piece of content is authenticated ("AT" stands for "Authenticated Transfer"). This offers the possibility of distinguishing official

messages and validated claims. Second, the ATProto's labelling system ensures that official emergency management sources, relevant journalism, and citizen monitoring can be identified as trustworthy, even if people are unfamiliar with the names of the agencies and entities responsible for emergencies. Third, unrelated feeds and social apps can decide to make emergency messages more prominent (in fact, emergency messaging could be supported at the protocol level). And finally, because feeds can be manually curated, it is possible for trustworthy sources to create feeds to relay credible information being shared by people on the ground. Together, these components allow us to build a more reliable information environment during crises.

Our headline refers to a world in which these capabilities were not fully put to work during a tragic flooding event. As a result, ministries, emergency management agencies, technologists, and community-based organizations came together to establish better practices and capabilities.

Our Approach

We believe that social media should prioritize the needs of the people who use it, actively promote democracy, and support a thriving ecosystem of innovative businesses that are internationally competitive. We propose the following fundamental shifts in the design of our social media:

- Replace social media consumer products with shared social media infrastructure that supports a greater multiplicity of consumer products. Replacing Instagram or Twitter with a hypothetical European social media product would achieve very little. Social media is too powerful to be concentrated in a single product, no matter where that product is headquartered. An approach based on infrastructure allows us instead to open the way to an explosion of creativity in social media applications.
- Break apart monolithic social media systems into independent operators with simpler, more focused responsibilities. Legacy social media concentrates all functions into one big system: identity, data storage, feeds and curation, social graph, and user interface are all bound together. This creates dependencies between these components that make the overall system hard to govern. Instead, we are building a system in which different components have clear and narrow responsibilities, making them easy to govern. These components are then integrated into a comprehensive system through open, interoperable protocols.
- Support global interoperability with strong subsidiarity, such that states may apply their own regulatory frameworks with full sovereignty while integrating into a global social internet. We achieve this by supporting interoperability at the protocol level which describes how pieces of infrastructure operated by different entities work together while simultaneously localising infrastructure in the relevant jurisdictions, subject to the applicable laws, and with the operational capacity to make their own decisions.
- Advocate for regulation that supports innovation. By creating a content moderation commons at the infrastructure layer, we enable entrepreneurs to build systems that comply with applicable jurisdictions without having to worry about it. We are working to structure the network so that hostile behaviour such as invasive privacy practices can be rooted out directly by users.
- Instead of targeting symptoms of an unhealthy information environment, such as fact-checking, we address the root causes of disinformation, notably through <u>algorithmic pluralism</u>. We are bringing to social media the same resilience and diversity that sustains the traditional media ecosystem.

Deliverables

European AT Proto Infrastructure

We are working to operate social media infrastructure in Europe using AT Proto. Our goal is to ensure that social media in Europe cannot be disrupted at the whim of hostile foreign companies, to ensure social media operate accordingly with European laws, and to support emerging novel social products that can be built quickly and easily because they don't need to reinvent core infrastructure. Just as unbundling telecommunications infrastructure sparked innovation, the unbundling of social platforms is creating space for new entrants.

- A **Personal Data Server (PDS)** is a system that stores a person's data in a way that guarantees that they can always take it to another PDS without losing their identity or followers. We will establish a European PDS provider and a service to facilitate seamless transitions between PDS providers.
- A **relay** is a system that asks PDSs for the latest posts, likes, etc. that people have made and produces a firehose of events for that data, which can be consumed, for instance, by feed generators, content moderation systems, apps, etc. We will set up and operate a European relay.
- The **PLC Directory** is the primary system used for people to register their identity with AT Proto. There can be only one PLC Directory (to guarantee unique identifiers). We are working to ensure the PLC is independently and robustly governed as a global commons.
- An **index** makes the content of an AT network searchable, allowing people, posts, or other content to be easily found. We will work with a search partner (perhaps the European Search Perspective) to operate an index.

Commons for Content Moderation

Europe urgently needs its own stack to preserve information integrity, built with public interest values and legal compliance in mind. To guarantee robust defense against manipulations and foreign interference, integrity standards need to be rooted in the design of the technology. We think of information trust and integrity as foundational design elements, not afterthoughts.

We are thus seeking to build a foundational component for the Eurostack: a **Commons** for **Content Moderation (CoCoMo)**.

A CoCoMo will provide a shared moderation system for developers and startups interested in building applications on top of AT Proto, which will encode regulatory standards and simplify and reduce the cost of managing the moderation obligations of technology platforms. It will also ensure that moderation processes happen in accountable and sovereign infrastructures. This system makes it possible to deliver both regulation and innovation at the same time.

The CoCoMo will:

- Provide a modular and transparent moderation relay for decentralised platforms.
- Feature label-based filtering, geo-specific content controls, audit logs, user appeals, and policy transparency.
- Support apps, app views, and smaller operators by design, without centralizing power.
- Be field-tested on <u>Flashes</u>, a European social media app that is pioneering new uses for AT Proto.

This commons-based and interoperable approach is aligned with emerging trust and safety and moderation practices. It complements and builds upon projects such as those of our partners <u>ROOST</u>, a user safety initiative also joined by most current industry leaders, which was launched at the recent Al Action Summit in Paris.

Building a CoCoMo for Eurosky will both support the integrity of our information ecosystem, and support entrepreneurial opportunities in Europe.

Governance

Social media forms complex systems that require substantial governance at multiple levels. We do not propose to single-handedly govern the entire system, as that would just reproduce familiar dynamics of power concentration, but we can host, organise, and contribute.

- Keeping AT Proto open requires well-governed **standards** to ensure that it is interoperable and usable by all. We will either host the standards process or support standard setting, either in the community or in a formal organisation.
- We will develop an **AT Covenant** and the corresponding institutional structures to ensure that participants in the AT network are well-behaved, for instance, that PDSs aren't used for data mining.
- We will help support the governance of AT **open-source projects**, notably working to ensure a strong feedback loop with the standards process, community involvement, and that developers are adequately funded.
- We will support **integration between AT Proto and other protocols** (specifically ActivityPub) to work in the direction of a universal standardised protocol that serves everyone.
- We will develop **sustainability models for all components of the infrastructure** to ensure that it is sustainable.

Ecosystem

Infrastructure is successful when it supports a thriving ecosystem of downstream uses.

- We will support emerging novel social products and startups operating on this infrastructure.
- We will establish collaborations, for instance with the media, to grow interest and develop a healthy information environment.
- We will partner to develop feeds and ensure the durable pluralism of the platform.

Conditionalities

On the assumption that this system will receive public funding, we are elaborating conditionalities to match. At a high level:

• High level of privacy protection. People remain in charge of their identity and data. No PDS or Relay can be used for profiling purposes.

- Public interest. The system will keep operating in the public interest, and it will not be possible to buy it.
- Healthy algorithms. To the extent that we develop feeds or recommendations (which may not happen), they will not involve toxic algorithms.
- Credible oversight involving, amongst others, civil society.
- Compliance with European law and respect for fundamental rights. We also endeavour to create as much subsidiarity as possible so that Member State laws can also apply in their own sphere.

Beyond

AT Proto & ActivityPub

A common and important question is why we are focusing our efforts on AT Proto (that underlies Bluesky and a growing number of other systems) rather than ActivityPub (that underlies Mastodon). The short answer is: because AT Proto provides us with much greater flexibility in terms of the governance and institutions that we can build on top of it ensuring that we have a democratic, competitive, and capture-resistant social network infrastructure. It provides an unbundling of the social web, making it possible to establish good governance for social media infrastructure, in Europe, run by a European public interest foundation, following European laws, and utilising European cloud infrastructure. It is worth noting that it is possible to implement ActivityPub and the institutions that ActivityPub supports on top of AT Proto, but that the reverse is not true.

Both are open source. Both have (different) cost challenges when operated at scale. ActivityPub is a W3C standard (though note that Mastodon, by far the dominant actor in that space, is more accurately described as a proprietary system with partial ActivityPub compatibility). AT Proto is being discussed as a potential IETF workstream, although with no formal commitment at this time. The community is working on taking over the protocol specification.

The protocols have been bridged to one another successfully multiple times.

Ultimately, the kind of governance that ActivityPub is strong at (reasonably-sized communities) is highly valuable and desired by many users, even if it is limiting to have it as the primary structure, and our plan is to simply support ActivityPub atop AT infrastructure.

Relevant Organisations

Several overlapping organisations are relevant to this work in one way or another. Here is how they relate.

- The **EuroStack project** is a broad alliance of individuals and businesses in Europe that advocates for greater digital sovereignty across digital infrastructure (see notably <u>the pitch</u>, the <u>support letter from businesses</u>, and the <u>European Way report</u>). EuroSky is the social media component of the EuroStack.
- <u>FreeOurFeeds</u> is a campaign, led by some of the world's top public-interest technologists, that aims to establish a social media infrastructure that is sustainably free from billionaire control. EuroSky is the European concretisation of this campaign.
- <u>IndieSky</u> is a collective of developers and technologists organising open-source and open-standards work around AT Proto to help guarantee the protocol's independence from Bluesky and to make it easy for people to deploy sovereign infrastructure anywhere in the world. EuroSky is collaborating directly with IndieSky
- <u>Flashes</u> is a European AT Proto application comparable to Instagram, and collaborates directly with EuroSky.
- <u>Bluesky</u> is an American startup in the social media space and the inventor of AT Proto. They operate one application on top of AT Proto. While they have expressed enthusiastic

support for independent AT infrastructure, they are not involved in EuroSky nor have they been invited to be.