dribdat: a co-creation app for hackers



v.2.0-09.2021 _ dribdat.cc _ CC BY 4.0

dribdat is an open source application for data-driven co-creation: an online tool to help organize in-person and virtual events, collect bootstraps, resources and challenges, build teams and promote fair conditions. In an accessible, webbased interface familiar to hackathon participants, we can write progress logs, collect the relevant documentation, code, and connect to all other aspects of the experience.

Using dribdat, we collect and showcase projects at time-bound collaborative events, usually at hackathons: a co-creation format for grassroots innovation at the heart of open tech movements. With a strict deadline and careful preparation, such events are used to build a community of practice, by lowering the barriers to entry for contributions to civic tech, NGOs or startups.

Emerging from the world of open data and digital civil society initiatives, dribdat began on the premise that participants are not only using open data, code, and hardware to create projects with real-world potential – and that, in doing so, we participate in an intensive data sharing experience. In this sense, hackathons can be thought of as focus groups, where skill transfer and knowledge sharing is accelerated by open access. We made dribdat so that participant contributions are more sustainable and verifiable, with their outputs published using the latest open web standards.

Digital innovation events are more than just a trendy way to get recruited into an IT job: they are venues for energetic collaboration, co-creation, civic engagement, and technical experiments in an open, socialized setting. With the experience of organizing many meetings in other tools, we use dribdat today to streamline efforts and encode best practices from the whole community.

The name dribdat is inspired by "dribbling" in basketball, with a hat tip to <u>Dribbble</u>, an online community for design, and the peer-to-peer <u>Dat protocol</u> for distributed open publication. In the following pages we dive deeper into what makes dribdat tick, and where we see this going next.



dribdat is an open source project board for splendid collaboration.

Designed with the goal of helping organizers take better care of their teams, dribdat features timekeeping and progress tracking, streamlined information channels to teams, making it easier to sustain the energy in the room or online event – to help everyone focus on driving ideas forward. Dribdat could also be used in a variety of similar formats, such as *Agile/Scrum sprints*, *Design Thinking* workshops, or in *Rapid Prototyping* activities: anywhere time is of the essence.

The code is accessible for free (under the MIT license), with instructions for self-hosting the platform anywhere that Python runs - which is, basically, anywhere. We are also making it easier to deploy on popular platforms using package management and containers. Once an application is running, you can set up your first hackathon. Future events can run on the same site.

Looks like you are new to this - welcome!

Start a Hackathon

Open source under the MIT license. About DRI de h AT Issues

On the front page you can see the upcoming event, as well as any previous events. A short description is followed by a link to the event home page, as well as a second-by-second countdown of time remaining until the start or the finish line (once started). *Projects*, *Challenges* and *Resources* are shown in the event screen. Here you can learn about topics, datasets, schedules, get directions and any other vital information that the organizers have provided.

Before the event begins it is possible to *Share a challenge*, which can be organized by *Category*. People who are interested in a challenge can join it to express their support, approach the initiator in person or via contact channels that are connected to the tool. Once the event has started, you can form a team by clicking the *Join* button, taking over a challenge and boosting it, or selecting *Start project* to begin afresh when open challenges are permitted.



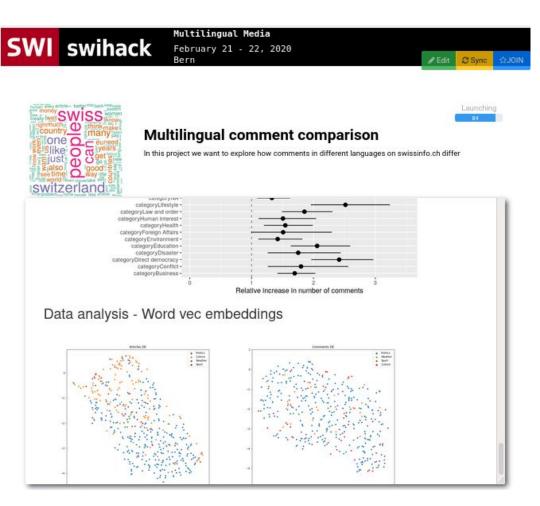
dribdat is the best connection to your hackathon results.

We believe in the power of the open Web, and in dribdat-powered events, the teams are truly free to work as they please. Keeping up with every twist and turn in the online collaboration landscape, dribdat connects a support community sharing the best brainstorming, prototyping and code sharing tools, helping to ensure we can plug in to the most preferred platforms.

Typically, hackathons need some kind of publishing workflow that collects data from the team in a series of forms. We have often encountered this to be a laborious process that steals valuable time from teams and organizers while introducing bias and latency. Project aggregation is facilitated with the ability to start a project on the basis of existing data from GitHub or another site.

No copypasta needed: projects which get published in a compatible source repository - such as <u>GitHub</u>, <u>GitLab</u>, <u>Bitbucket</u> - or supported wikis, such as <u>Etherpad</u>, <u>DokuWiki</u> and <u>Google Docs</u> - can be synchronized so that documentation can take place, and *continue to happen in a distributed way*, using standard formats such as the *README* files preferred in open source.

Users may also use short Twitter-like posts with <u>Markdown</u> formatting to document their project, and we are working on simpler, more direct ways to capture insight into participant activity – such as <u>dridbot</u>, a Slack integration that allows updating projects directly within a team channel.



Swiss Broadcasting Corporation / #swihack 2020

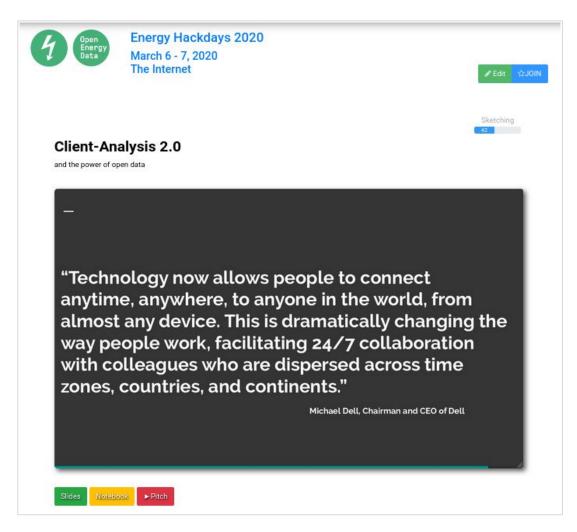


dribdat reduces friction for more effective collaboration.

Project presentations and demos are made easily and efficiently available for evaluation when each team can update their own progress level, generating an automatic metric for profile completeness and activity levels, and giving each project a meaningful progress score.

Team members can subscribe to the project once you have started it, and immediately gain access to improving the content. Their public profile will then be linked to it, and platform activities (messages, progress reports, code commits) can be tracked along side their team-members. We are working to build this into a powerful tool for tracking performance and recognizing contribution, and support embedding real-time collaborative text editing such as CodiMD and Jupyter notebooks directly in the project to minimize the friction of on-boarding participants.

Our data exports, API and dashboards allow organizers to at a glance see how all their teams rank both during and after the event, extracting real-time statistics for insight on the pulse of the hackathon, pointing to improvements and providing compelling content. Fundamental to all of this is the experience of the hackathon participant, their ability to represent their team, be aware of what's happening in the wider event, document their efforts, and present the results.



Opendata.ch / Energy Data Hackdays 2020



dribdat is about interoperability.

Not a metaphor: this platform is a digital glue between a plethora of tools and processes that are being deployed in the civic tech community, enabling quick and painless deployment and support of hackathons. Tools like dribdat are important instruments in facilitating concentrated social change-making that is digitally sustainable.

Several innovations are baked into the core of the project, such as support for Frictionless Data, the "open-source toolkit that brings simplicity and gracefulness to the data experience" (frictionlessdata.io) which we use to embed Data Packages. These accelerate the process of unpacking and exploring open information sources in the crucial early research & experimentation phases of a hackathon.

We have created and promoted an open schema for documenting hackathon results, *hackathon.json*, which is a simple, readable text file at the root of any dribdat instance. Along with compliance for <u>Schema.org</u> and <u>Open Graph</u> standards, we strive to ensure that hackathon publications are picked up by search engines and easily federated.

For event organizers, our backend allows quick browsing and export of project data: in document form for evaluation by jury, or in CSV or JSON formats for external workflow. Spammy or invalid entries can be easily hidden or cleaned up. With OAuth 2 support, user profile administration can go through an external, enterprise-scale provider such as GitHub or Slack. We can generally support integration with any kind of data platform or collaboration tool through embedding or APIs. We can work with event management software, even other hackathon platforms, if you need to mix and match features: dribdat is intended to be part of an ecosystem of compatible Internet tools.



Forum Helveticum / Plurilingualism Hackathon



dribdat is being excellent to each other.

This project was built in the tradition of creative and ethical hacking. We combined best practices in using wikis, issue tracking, and content management systems, and created the basic framework of the application at a hackathon in 2015. Since then, we have battle-tested it at many events with thousands of people.

In these first years of service, dribdat has supported dozens of events around Switzerland, and has become the official hackathon platform of Opendata.ch - the Swiss chapter of Open Knowledge, the Open Network Infrastructure Association, DINAcon - the largest annual Swiss conference for digital sustainability, the patient-centric DayOne Health Hacks, and more.



One of the most important areas of feedback from our participants has been to understand what information should be made as visible as possible, to benefit our users despite short attention spans. This is the Code of Conduct, Terms of Participation, and Bootstrapping Resources.

All attendees, sponsors, partners, volunteers and staff at our hackathon are required to agree with the Hack Code of Conduct. Organisers will enforce this code throughout the event. We expect cooperation from all participants to ensure a safe environment for everybody. For more details on how the event is run, see the Guidelines on our wiki.



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Dribdat comes with support for the <u>Hack Code of Conduct</u> and <u>Creative Commons</u> licenses out of the box. This can be easily customized. We also have a 7-step process inspired by the <u>School of Data Pipeline</u>, that we recommend for efficient data expeditions and hackathons. This can also be custom-tailored to fit other patterns and methods. Around this pipeline, it is possible to set up a Resource area with recommended tools, datasets, or brainstorming instruments.

Independently developed at the grassroots, behind the scenes of this project are compacted qualities of what we believe entails good collaboration: a supportive atmosphere that proliferates diversity and tolerance, clearly stated goals, community support and progressive guidelines. This is an area of intensive thinking and development, currently the focus of a research collaboration with the Department of Social Work at the Bern University of Applied Sciences, the topic of an upcoming publication and proposal of an improved team-building process for inclusive events.



dribdat is not all the things.

This is a niche product with unique features and clear limitations. While you will find a variety of enhancements being worked on at hackathons-ftw/dribdat/issues, here are a couple of major areas where we are lagging. See here for similar products that you may wish to consider for your needs, and visit the <a href="https://dribdat.org/

Dribdat has minimal authentication, allows the use of an anonymous username and disposable e-mail address. Collecting personally identifiable information is not the goal of the project: facilitating recognition in a privacy-protecting way is: and will continue to be improved upon. We therefore suggest using tools like Slack or GitHub for managing user authentication, or asking users to create profiles in the community platform that you integrate with dribdat - like the open source Discourse forum software. You might also recommend "CV builder" platforms like LinkedIn or Stack Overflow to conveniently promote everyone's hackathon experiences.

Dribdat has minimal content management, and does not feature a form builder. We have left the project structure open ended, allowing organizers and teams to define how people can engage as contributors or testers. This is certainly part of the challenge of succeeding with promoting a hackathon idea, but it is also a major area of improvement to assist beginners and encourage active participation. We are collaborating on designs for enhancing this with several groups.

Tip: at some hackathons, like the <u>hacknight challenge</u> pictured below, we recommend following an easy-moderate-advanced structure ("ski pistes") in their task descriptions. Other events set up a template which forces project teams to think about this issue.

{ hacknight challenges }



Find out about the Fairphone Open project, deploy and compile a local build of the operating system into an Android Emulator - or if you have an actual Fairphone (or a cooperative friend), try to install a custom build on the device.



Use the Build instructions to get the source and put together your own local build of Fairphone OS. See if you can put the DINAcon logo into the lock screen, or make some other modification - use your imagination!



Visit the Fairphone Bugtracker to see the most actively discussed and developed issues, and contribute to the conversation - make a bug patch or address a feature request at the HACKnight!

At this time, commercial support for dribdat is rare. The code base has developed organically using crowdsourced requirements. So far there is no service provider running instances on demand. We believe there is a market for this and are happy to talk to any IT company who would be willing to put some thought into this. We are also contributing to other, newer attempts to build a scalable operating system for hackathons, such as <u>VersusVirus</u>.



In a Nutshell, dribdat...

- ... has had <u>1180 commits</u> made by <u>9 contributors</u> representing <u>8596 lines of code</u>
- ... is mostly written in Python with a low number of source code comments
- ... has <u>a well established</u>, <u>mature codebase</u> maintained by <u>a small development team</u> with <u>increasing Y-O-Y commits</u>
- ... took an estimated <u>6 years of effort</u> (COCOMO model) starting with its <u>first commit in September, 2015</u> ending with its <u>most recent commit 4 days</u> ago

- https://www.openhub.net/p/dribdat







hackathons FTW!

The project is rooted in open data standards and emerging technologies for open networks: dribdat can run as a cloud service, as an on-premises self-hosted solution, or even on a dedicated hardware device for ease of deployment. Our maintainers are dedicated to running open source hackathons, involved in standardization and data integration efforts. Alternative versions and new designs are being promoted through an open code organization. It is possible to support the work at any time through our transparently funded OpenCollective project.

The easiest way to try dribdat is to sign up for an upcoming event, and to use our platforms as participant. You can visit the home page at <u>dribdat.cc</u> to get links to example deployments, instructions on how to set up your own server and start your own events. If you need help or advice with any of this, or would like to contribute to the project in some way, please get in touch via <u>dribdat@datalets.ch</u> or through any of these links below.

Thank you for reading! Feedback welcome.

Website: <u>dribdat.cc</u> Twitter: <u>@dribdat</u>

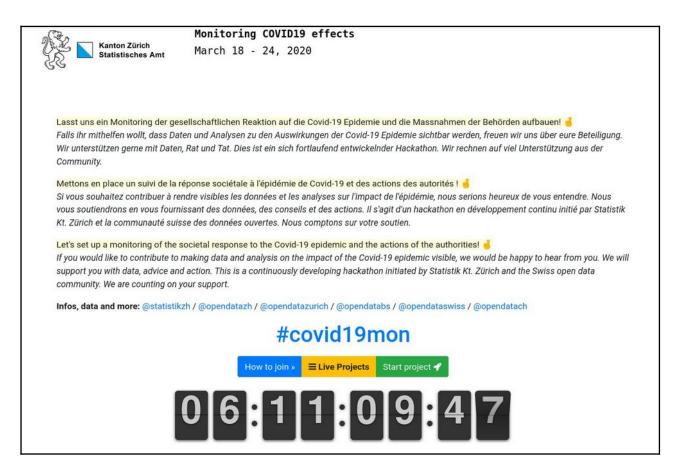
Funding: opencollective.com/dribdat Source: github.com/dribdat



2015 - 2021

On the following pages are reference deployments with background details.





The open data community at the front-lines of a digital response to the COVID-19 pandemic.

#covid19mon

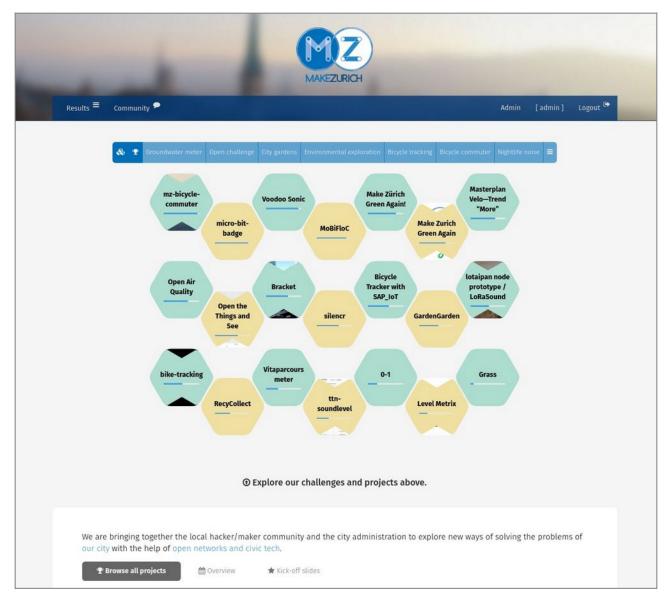
User: Canton of Zürich

Application: https://db.schoolofdata.ch/event/7

Discussion: https://forum.opendata.ch/t/18-3-1-year-of-covid19mon/757

Integrations: Mattermost, GitHub





The community of interest around the Internet of Things is at the core of dribdat.

MakeZurich

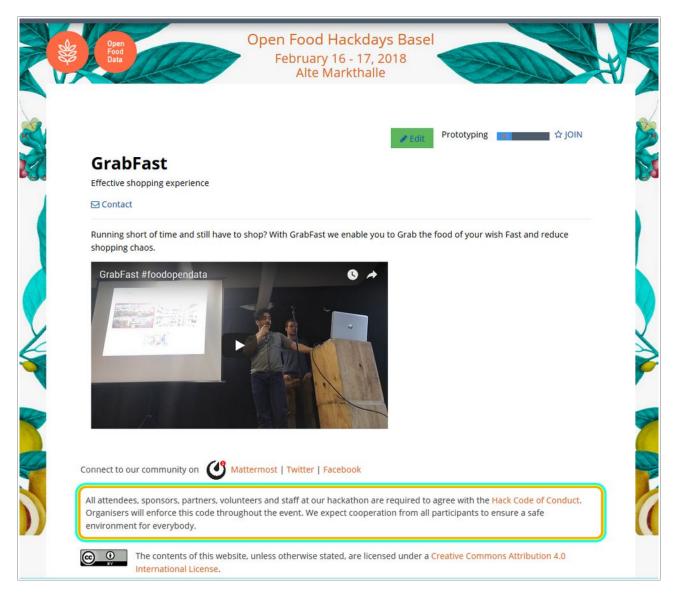
User: Open Network Infrastructure Association

Application: http://now.makezurich.ch/

Discussion: https://forum.schoolofdata.ch/t/22-30-6-makezurich-2018

Integrations: Slack, GitHub, The Things Network





From 2016, dribdat became the official platform of Opendata.ch hackathons around Switzerland.

Open Data Hackdays

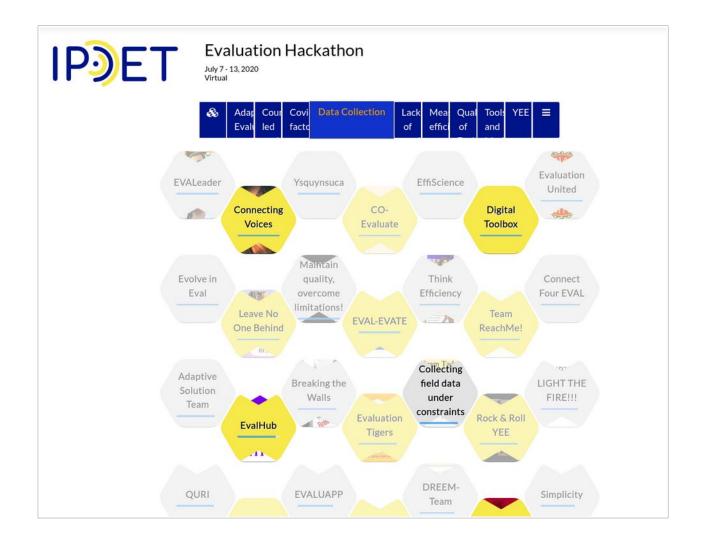
User: Opendata.ch - Swiss Chapter of Open Knowledge

Application: http://hack.opendata.ch/

Discussion: https://blog.datalets.ch/039/

Integrations: Datacentral, CKAN, Discourse, GitHub, Slack





Evaluation Hackathon

User: International Program for Development Evaluation Training

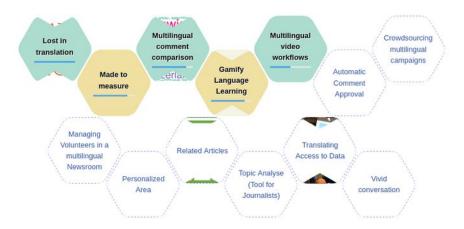
Application: https://evalhack.org/

Discussion: https://opencollective.com/dribdat/updates/a-season-of-hackathons

Integrations: Slack, Disqus, YouTube







Make sure to follow the Terms of Use and always correctly attribute your sources.





On Feb. 21 and 22, Switzerland's first Multilingual Media Hackathon took place in Bern at the newsroom of SWI swissinfo.ch, the international service of the Swiss public broadcaster SRG-SSR. **Many thanks to all involved!** There is documentation here, live streamed presentations (YouTube), and commentary on social media (Twitter) to explore. For more details, visit our website.

Multilingual Media Hackathon

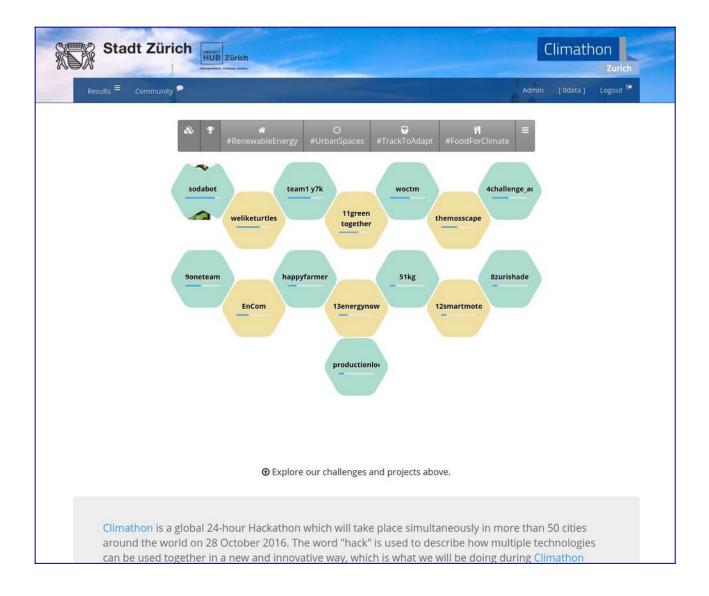
User: Swissinfo

Application: https://db.schoolofdata.ch/project/58

Discussion: https://blog.datalets.ch/065/

Integrations: CodiMD, GitHub, YouTube





Climathon Zurich

User: City of Zürich

Application: http://hack.opendata.ch/event/4

Discussion: https://blog.datalets.ch/023/

Integrations: Slack, Hubot (sodabot), GitHub





Image courtesy of Impact Hub Zürich

Dribdat's first release, designed in cooperation with Swisscom

Internet of Things Hackathon

User: IoT Zürich Community

Application: https://datalets.ch/dribdat/iot-2015/

Discussion: http://blog.utou.ch/2015/an-internet-of-open-things-to-tell-stories/

Integrations: Slack, GitHub, Twitter, Instagram, Heroku, custom hardware

