Open Research Institute

open source, open access, and open process for amateur radio and more.

We are Open Research Institute, a non-profit 501(c)(3) incorporated in California in March 2018.

ORI was founded by Michelle Thompson W5NYV, Bruce Perens K6BP, and Ben Hilburn KJ4DDR, in order to support open source work for amateur radio.

What do we do?
We carry out creative and systematic open source work in order to advance human knowledge.

Our research is open. Open source, open access, and open process. This means all of our work is published, all of our source code shared, all of our hardware fully documented. Open access means it's available to all. Open process means that decision-making along the way is open to input and intermediate results are revealed as often as possible.

All five of the current members of the board of directors are hams. Members include Steve Conklin AI4QR, Anshul Makkar, Karen Rucker KG5GAK, Michelle Thompson W5NYV, and Keith Wheeler KI7PEM. Previous Directors include Ben Hilburn KJ4DDR.

Our goal is to sponsor research and development anywhere there is a clear need for an open solution to replace a proprietary solution. If the open solution creates more value, provides more leverage, and enables more good over the proprietary one, then it's a win in the end for everyone involved. That is what we look for. That is what motivates us.

Why should you care?
Because a surprisingly large amount of software and hardware in amateur radio is closed, proprietary, or licensed in ways that make it very difficult to improve, learn from, or adapt.

Here's one example. One of the most disappointing things in amateur radio are the proprietary CODECs used in digital voice systems. This is a good example of a closed technology that needs to be replaced with an open technology. Your choice of CODEC should be open and it should be as high quality or as efficient as you want. You should never have to strain to recognize a voice on the air. You should be able to specify how compressed you want your signal. Proprietary CODECs are inherently worse than open ones because they increase cost, impose bizarre limitations like dongles, add risk (what if the license terms change, what if the hardware dongle is discontinued), and prevents users or even developers from learning about what's inside and how they work.

What are we doing about it?
We support projects that improve amateur radio and other fields by liberating users from proprietary solutions. Open source implementations greatly increase the value of work done by allowing all participants to step up and advance the state of the art, and increase value to customers, instead of fighting over lower level details. Two major projects in amateur radio that we support are Phase 4 Ground and Space, an open source implementation of DVB-S2 and DVB-S2X for space and terrestrial amateur radio use, and M17 Project, an open source protocol for VHF/UHF.

Learn more about us and join ORI at https://openresearch.institute/
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