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# COMMUNITY TECHNOLOGY RETROSPECTIVE: 2015 SEED GRANTS

JANUARY 2016

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## About the Detroit Community Technology Project

DCTP's mission is to use and develop technology rooted in community needs that strengthen human connections to each other and the planet. In 2014, DCTP formed out of the Digital Stewards Program and networks cultivated at the Allied Media Conference. DCTP offers technical support to various grassroots networks including the Detroit Digital Justice Coalition, the Allied Media Conference, and more.

## About the Open Technology Institute

The Open Technology Institute at New America is committed to freedom and social justice in the digital age. To achieve these goals, it intervenes in traditional policy debates, builds technology, and deploys tools with communities. OTI brings together a unique mix of technologists, policy experts, lawyers, community organizers, and urban planners to examine the impacts of technology and policy on people, commerce, and communities. Our current focus areas include surveillance, privacy and security, network neutrality, and broadband access.

Learn more at [newamerica.org/oti](http://newamerica.org/oti).

## About New America

New America is dedicated to the renewal of American politics, prosperity, and purpose in the Digital Age. We carry out our mission as a nonprofit civic enterprise: an intellectual venture capital fund, think tank, technology laboratory, public forum, and media platform. Our hallmarks are big ideas, impartial analysis, pragmatic policy solutions, technological innovation, next generation politics, and creative engagement with broad audiences.

Find out more at [newamerica.org/our-story](http://newamerica.org/our-story).

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Tools for building a custom Wi-Fi antenna in Argentina. Photo by Nicolás Echániz of AlterMundi.

# INTRODUCTION

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At the end of 2014, the Open Technology Institute and the Detroit Community Technology Project<sup>1</sup> initiated the Community Technology Partnership and began awarding SEED grants to civil society organizations in different parts of the world. We awarded eleven grants over the past year. We started from the understanding that sustainability is not achieved through financial transfers, but rather through the process of relationship and capacity building. We use the word *seed* to acknowledge that one year is a short period of time for a seed to flourish and grow; it needs care and infrastructure that lasts well beyond the initial funding period of these projects.

We are now reflecting on this process, documenting our understandings and practices, and reporting lessons learned and methods we believe play a crucial role in supporting civil society groups. In particular, this report aims to: (a) share learnings about how civil

society groups are reenvisioning their digital infrastructure to strengthen their communities; and, (b) reflect on establishing a collaborative funding relationship that meets people where they are as peers and fosters exchange.

The goal of the Community Technology Partnership is to support community organizers working on critical digital justice issues. This year's round of SEED grants focused on groups building autonomous, community-controlled communication infrastructure through a collective process of learning, teaching, and building.

The SEED grants project grew out of the work of the Detroit Community Technology Project and the Open Technology Institute, and reflects the network principals<sup>2</sup> of Allied Media Projects, and the Digital

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1. A sponsored project of Allied Media Projects.

2. <https://www.alliedmedia.org/about/network-principles>.

Justice Principles<sup>3</sup> of the Detroit Digital Justice Coalition. These principles guide a process that begins by listening and focuses on common ownership, access, participation, and healthy communities.

In line with these principles, we issued the first call for proposals in October, 2014, with the following goals:

1. **Projects with purpose:** Strengthen projects that address core community issues using creative tactics, involve a process that builds collective power and skills, incorporate art and media, address systemic issues of ownership and governance, and do not shy away from reimagining infrastructure and the Internet.
2. **Build it ourselves ethic:** Support solutions designed and initiated by local groups already working on social justice issues in their communities, rather than outsider-initiated or isolated projects. Local communities should initiate and lead projects, rather than outside groups *building with or for others*.
3. **Community organizing and education:** Focus on the process of organizing and shared learning, which will be more sustainable and transformative than infrastructure alone. While network infrastructure itself is valuable, we are interested in understanding if a community process that prioritizes social justice values will result in a healthier digital ecosystem.
4. **Community media production:** Support a model of infrastructure that values the creation of local media and art, not only the consumption of Internet content. We seek to foster producers rather than consumers, and to do more than distribute bandwidth.
5. **Global interconnections between projects:** Build a global network of groups experimenting with community infrastructure that are mutually supportive. We want the grants program to build relationships between groups, rather than create a dependency on us.

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3. [http://detroitdjc.org/?page\\_id=9](http://detroitdjc.org/?page_id=9).



Installing network equipment with Radio Maendeleo in Bukavu, Democratic Republic of the Congo. Photo by OTI.

# WHY COMMUNITY NETWORKS?

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Through our work, we have seen that local infrastructure can be built in a manner that:

- Ensures users have a voice in how that infrastructure is designed and governed.
- Supports skill building and local economic development.
- Integrates community media as a core component.
- Reinforces practices of collective self-governance.
- Is more resilient to natural, political, and economic disasters than our current systems.
- Offers a solution for internet access and digital literacy in low income areas.

To reach these ends, communities themselves need to understand the role that technology can play in their community and have control over local infrastructure to build, repair, and adapt it based on local need.

Community networks are just one tool that can be used to strengthen a local digital ecosystem. In the best cases, a community network is part of a broader strategy that brings people together to produce, teach, learn, and adapt digital media, art, and technology to rebuild social and economic systems that have traditionally depleted neighborhoods, towns, and cities. Within this strategy, it is also important to build understanding and capacity around media-making, technology policy, surveillance and privacy, and digital and media literacy.



Students build the network for Connecting Eenhana in Namibia. Photo by Nicola Bidwell of the University of Namibia.

# SEED GRANTEES

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During the first year, the Community Technology Partnership provided SEED grants to eleven civil society groups<sup>4</sup> selected based on the project goals listed previously. We worked with each project for six months to a year. The groups are based in 10 different countries, and include community radio stations, community development organizations, youth media trainers, educational initiatives, art and culture hackers, and a women's cooperative. Some are formal organizations with paid workers and some are volunteer groups or collectives. The selection of these groups is discussed in subsequent sections.

As part of the proposal and project planning process, each of the grantees defined its purpose, goals and intended impact. The grantees share many of the same goals, which include:

- Cultivate practices of community self-reliance to improve the capacity of people to handle natural, economic, and political disruptions and disasters.

- Build connections between different communities and strengthen the social fabric.
- Strengthen and enhance the community media ecosystem.
- Engage youth through a digital medium that develops connections in the community (by building something together), rather than outside the community (online only).
- Expand the creation, production and exploration of technology, art, and media in local languages.
- Disrupt centralized, monopolistic telecommunications infrastructure and the corporatization of the Internet by creating community-based alternatives.
- Build digital infrastructure and broadband access where telecoms are not providing sufficient or trusted service.

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4. <https://www.alliedmedia.org/news/2015/10/04/meet-community-technology-international-seed-grantees>.



A community meeting for COWMesh in India. Photo by Arjun Venkatraman of MojoLab Foundation.

# PROJECTS WITH A PURPOSE

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While the projects share many of the same overall goals and practices, we selected our grantees because we believe that each brings a unique and important idea or process that merits further exploration. These are some of the ideas that excited us about this year's grantees:

**Community radio stations and digital infrastructure.** Community radio stations are fundamental components to a healthy media ecosystem. Already trusted providers of local content using traditional broadcast radio infrastructure, these stations are now providing a new and valuable service by experimenting with local digital infrastructure in their communities. In the Democratic Republic of Congo, the networks in Goma and Bukavu are distributing local services (Wikipedia, chat, educational materials, books, and more) and a local blogging platform. The networks connect local organizations, universities, and radio stations. In Mulukuku, Nicaragua, the Cooperativa Maria Luisa Ortiz is building a network to link their various services with other local organizations and institutions. In both Bukavu and Mulukuku, the local organizations also operate a computer center, which has the advantage of providing Internet access in a community setting.

**Connect youth media with a youth-made technology.** Both *Connecting Eenhana*, launched by Glowdom Educational Foundation and University of Namibia, and Santana Unipessoal's *Youth Mesh Media* in Timor Leste are focused on pairing youth storytelling with youth-built infrastructure. *Youth Mesh Media* seeks to capture the spirit of Timor Leste's struggle for independence by focusing on youth exploring their history through storytelling, while building shared digital infrastructure in the town. In Namibia, *Connecting Eenhana* are teaching hearing-impaired youth to create local applications and stories, as well as build a network linking the schools to other areas within town.

**Get off the Internet?** Several community networks mentioned here do not provide Internet access, and instead, create local intranets that support local media making, learning, and engagement. Intranets can provide local blogs, offline Wikipedia, secure chat, media, and other services. We consider these networks truly experimental—we have become accustomed to ubiquitous Internet access, and it is difficult to imagine another type of digital infrastructure. And yet, many are hoping local-only networks will encourage local content creation, revitalize the do-it-ourselves spirit of the early Internet, and build local civic participation.

**Counter-narratives for infrastructure ownership and control.** Falanster in Belarus is working to demonstrate the concept of community-controlled communications by providing local pop-up networks for large festivals. They also create T-shirts, posters, stickers, and jewelry to distribute at the festivals, and have painted a mural to counter the narrative that all infrastructure must be provisioned by telecommunications companies or the state. They organize their activities through regular mesh club meetings.

**Distributed local language media and low-cost PiFiTV.** Outside of Bangalore, Servelots, Janastu, and the MojoLab Foundation are experimenting with creating rooftop networks that interconnect RaspberryPi devices inside each house. Acting as a low-cost home computers, these devices connect to residents' televisions along with a mouse and keyboard. Using the *COWMesh* network, when people want to share media, they simply plug in a media-filled USB drive to the Pi, and it is shared across the network. *COWMesh* particularly focuses on local language content, as little content is available in the hundreds of major languages in India.

**Connect across divides for civic participation.** Working in an area recently plagued by conflict, Fantsuam is connecting villages in Kafanchan, Nigeria, to increase civic participation and dialogue. They are also supporting community ownership of

public schools by providing relevant educational resources for students, and facilitating input into the local government budgetary process to make it more inclusive and fair.

**Digital literacy and community networks.** In a remote part of Myanmar, communities built a wireless network spanning across valleys from town to town to provide minimal Internet access. Now Alternative Solutions for Rural Communities (ASORCOM) is seeking to add local services to offset access limitations due to low bandwidth. Because there are no telecommunications companies operating there, they are seeking to develop local digital literacy in addition to basic infrastructure.

**Community GSM and open spectrum.** Nuvem is attempting to build the second community mobile network in Brazil, inspired by Rhizomatica in Oaxaca,

Mexico. At the end of 2015, Nuvem was still waiting for a response to their license application. In the same town, they set up a wireless network that distributes Internet access, an OwnCloud instance for file storage, and Etherpad for collaborative documents.

#### **Build-it-ourselves firmware and antennas.**

AlterMundi in Argentina may have the world's most innovative model for mesh networks. They make use of dual band Wi-Fi routers to improve the capacity of the network, and when necessary use a single router with two custom antennas: one to create nearby omnidirectional coverage, and one in front of a home-made dish antenna to create a longer-distance link. This allows a single router to perform multiple roles in a network, and thus, cuts costs and dependencies on expensive equipment.



Planning a network for a local festival in Belarus. Photo by Mikhail Volchek of Falanster.

## **GRANT MAKING**

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Aside from what we have learned from grantees, we also learned a great deal by going through the project planning and grant making process. In these sections, we describe how we designed the grants program and what we learned.

#### **Finding Great Grantees**

In addition to the goals described previously, there were a few practical considerations that guided the selection process. First, based on our experience collaborating with groups and offering technical

assistance over the last several years, we know that we should offer grants on a rolling basis. By conducting ongoing outreach and following connections through trusted partners, we knew that we would find groups over time, rather than all at once. Also, we knew some groups would hear about the grants during one call, and would then prepare themselves to apply for the next call. We also recognized that deadlines tend to encourage timeliness, so we issued four calls for proposals (roughly one each quarter).

Second, we knew that we only had 10 to 12 grants to make, and we were worried about turning down many applicants and wasting people's valuable time. To help us avoid this problem, we decided to do targeted outreach to reach a specific, limited audience with each call. Additionally, we tried to be specific and clear about our criteria in the call for proposals, thus reducing the number of applicants that would not meet our criteria.

Third, based on our experience providing mentorship to projects over the past several years, we knew it would be fruitful to iterate on proposals by discussing project ideas with groups, providing feedback, helping them refine their plans and budgets, and providing technical recommendations. As a result, we:

1. Talked with many groups before they submitted proposals;
2. Held virtual meetings with most groups that submitted applications;
3. Asked clarifying questions that would be useful to the groups;
4. Allowed for as many iterations on proposals as necessary; and
5. After grantees were selected, walked through the process of goal setting and project planning together.

The last step was a critical addition to the process, and was designed by the Detroit Community Technology Project. More about the onboarding process is discussed below. As a result of these steps, groups with no professional proposal writing experience could be

successful. We hope it helped groups with less overall experience feel supported.

Our outreach and selection process would be improved by better support for non-English speakers. To remedy this bias, we would seek to include current grantees, who speak a variety of different languages, in future grant outreach and selection.

### **Selection Criteria**

The first articulation of our goals was contained in our more detailed selection criteria (listed below). Initially, each reviewer described the quality of each proposal based on these criteria. However, we found it difficult to weigh the various factors, as many proposals were strong in a few categories and weak in others. As a result, we refined our goals, and in turn, made better grants.

Not surprisingly, difficult decisions were difficult. Many proposals were excellent in one form or another. We received good advice about more narrowly defining our capacity and objectives to simplify these decisions. Unlike large foundations, we have limited funds available, and we realized that we could best serve our goals by supporting like-minded groups focused on our core values: community organizing and social justice. Larger foundations are in a better position to fund more traditional infrastructure projects or job training projects, for example. Additionally, we have the flexibility of working with much smaller groups of organizers and volunteers, while many other foundations focus on established NGOs.

With each subsequent round, we increasingly thought about who would be a good addition to the collection of groups and projects, rather than simply considering each project on its own. We considered the technical and organizing skills each project would contribute to the group of grantees, and how it would complement the other grantee skillsets. Additional grant making resources are available in *Appendix A: Helpful Grant Making Resources*.

### **Defining and Measuring Goals**

After awarding grants, we requested that groups complete the Project Goals and Metrics Worksheet (see *Appendix B*) designed to help clarify project goals, define metrics to measure progress towards those

## Proposal Review Criteria

1. **LOCAL.** The lead partner should be in the community itself.
2. **SUSTAINABILITY.** Projects should have a model of self-sustainability, or should be working towards such a model.
3. **SOCIAL JUSTICE.** Projects must address a critical social justice and/or human rights challenge.
4. **COMMUNITY MEDIA and AUTONOMOUS COMMUNICATIONS.** Preference is given to projects that support the creation of local media and will run local applications on the network. Projects that simply distribute Internet access are less likely to be selected.
5. **COMMUNITY PROCESS.** The proposed project should use an inclusive community process to involve people in the planning, building and governing of the network. Community-wide training and engagement should be an essential component.
6. **ORGANIZING EXPERIENCE.** The organization or group applying must have experience in community engagement and/or community organizing.
7. **GENDER BALANCE.** The project team has gender balance and includes a range of skillsets.
8. **TECHNICAL EXPERIENCE.** Project team has the technical resources to support the proposed project.
9. **SUPPORTED HARDWARE.** Availability of appropriate hardware in proposed location.

goals, and describe milestones. While some of this information was within applicants' proposals, we were aware that the grant writing process is often different from the project planning and visioning process—once a project starts, project plans become far more tangible. This was an opportunity for grantees to share their sharpened vision, after having gone through our review process and starting concrete project planning.

Most importantly, we hoped this would help nascent projects be successful by defining their intended impact and vision of success, specifying detailed goals, defining a way to measure progress on those goals, and breaking the project into month-by-month milestones to which particular individuals in the project would be accountable. We published the Project Goals and Metrics Worksheet, created by the Detroit Community Technology Project, hoping it would be useful to others (see *Appendix C*).

### Report Outs: Reflecting on Progress toward Goals

At the beginning of the process, we imagined that the project timelines would be approximately six months. We asked that projects submit monthly updates over that period for a few reasons:

1. We wanted to learn from each of the projects, and following their activities month by month was an excellent way to understand their evolution;
2. There are many technical and social challenges to establishing community wireless networks, and we wanted to provide effective and continuous support;
3. We wanted to encourage the creation of documentation, hoping it would be a valuable resource to others.

At the same time, we did not want to burden the grantees. We created Monthly Reflection Questions (see *Appendix C*) that we hoped would be useful for any project as a group check-in. We have not yet asked each grantee how they found the reporting process, but those that we have asked said that while it was challenging, it forced them to track progress in terms of weekly milestones. And as a result, they felt that they made more progress toward their goals.

Similarly, we found that the monthly reports were the most effective mechanism we had to understand when grantees were stuck, needed help or had questions. It was critical that in the monthly reports we explicitly

asked grantees to identify challenges of the past month and support or resources they needed from us going forward.



A map of the community network in Fumaça, Brazil. Photo by Bruno Vianna of Nuvem.

## TECHNICAL AND ORGANIZING SUPPORT

When requested, or during check-ins, we provided technical and community organizing support to the groups. Grantees most frequently asked for support with the selection of equipment, network design, and community facilitation. As a result, we published resources on the *(Re)Building Technology* website to address these questions. These included a guide to facilitating community projects<sup>5</sup>, new planning and technical additions to the *Neighborhood Network Construction Kit: A Do-it-Ourselves Guide to Community Networks*<sup>6</sup>, and group activities for exploring Community Technology and Digital Justice<sup>7</sup>.

All of these resources were also published in the *(Re)Building Technology*<sup>8</sup> zine.

Most of this interaction with grantees was remote, but we also conducted hands-on workshops in Thailand, the Democratic Republic of Congo, and Brazil. Activities and agendas for these workshops are available on the *(Re)Building Technology* website.<sup>9</sup> Whenever possible, we referred groups to each other for support and collaboration.

5. <http://communitytechnology.github.io/docs/facilitation/>.

6. <http://communitytechnology.github.io/docs/cck/>.

7. <http://communitytechnology.github.io/docs/intro-ct/>.

8. <https://store.alliedmedia.org/rebuilding-tech-zine>.

9. <http://communitytechnology.github.io>.

# INTERCONNECTIONS

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If we could go back one year and start again, one thing that we could improve would be the intentional building of relationships between project groups. While there were important links that developed virtually, the ability for people to meet face to face is critical. Thus far, we managed to help a few projects meet face-to-face over their grant period, but it is something we would want to do more in the future. We have facilitated direct, in-person exchange in three ways:

1. Co-teaching workshops or sessions at events.

2. Participating in barn raising style network build outs with partners.
3. Facilitating retreats or gatherings that focus on exchanging lessons and practices.

In many cases, our grantees were more helpful to each other than we could have been on particular technical, policy, or social issues. Grantees frequently communicated online regarding their projects, both to share ideas and request assistance. In future iterations, we would concentrate more funds towards these types of exchanges.

# LESSONS IN COMMUNITY TECHNOLOGY

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Based on our experience working with community networking projects and the experiences related by our grantee organizations, we offer the following simple advice on community technology projects and community-controlled, autonomous infrastructure:

1. Community networks should be led and built by the people they intend to serve. Too often outsiders initiate projects to *help* a local community build a network. Outsiders can serve as supplemental technical support, or provide other expertise, but should not initiate or lead a project.
2. Begin projects with open, participatory community meetings where everyone can be involved in the initial planning and learning. Shared ownership and responsibility are best built from the first moments of a project.
3. Focus on the community process at least as much as the end result. The promise of community networks is only met when they are actually built and governed using an

inclusive process. How are users becoming leaders or experts? How are people engaged in the decision making process?

4. Are you providing a service (as an Internet Service Provider), or organizing people to build infrastructure? Either model is valid, but it is best to be clear about the goal, and establish your organization and strategy accordingly.
5. Choose the simplest technology or even non-tech solution to get the job done. For example, a lot of energy in community wireless has been dedicated to creating open source mesh firmware; however, in some cases a simple point-to-multipoint network will be more resilient and easier for people to understand. Similarly, a community radio station, an outdoor bulletin board, or two-way radio system may fit the need better.
6. Be sure the project is not a technology in search of a problem. A network should not

be the goal—but a means to an end. It should be clear that the project serves a critical need articulated by the people most impacted.

It is easy for people to get caught up in new technology and never get to the point where the technology is serving its intended function.

7. Incorporate art, media, music, and storytelling. Content is at least as important as the network infrastructure, especially for drawing diverse people into the process and keeping them engaged.
8. Involve other groups, organizations, and movements even if they seem unrelated. Using a shared visual language and participatory planning process can help involve a wide range of groups.
9. Invite kids to everything. Similarly, make sure community elders can participate. Ensuring

that the process is accessible to everyone strengthens the project.

10. Make sure there is a cycle of learning and teaching included in every aspect of the project. Learners becoming teachers will help ensure sustainability.

No single solution will solve digital access disparities, rural broadband, Internet shutdowns, and telecommunication monopolies, much less ensure traditionally marginalized groups are not further excluded from technology. Communities will seek to address these issues based on their context, resources, technical skill, interests, and organizing capacity. We have seen that a technology solution is less important than a process that redefines who has a voice in shaping the issues and solutions. Community networks are one tool we have seen groups use successfully to this end, but there are certainly others. We hope the practices and lessons shared here will be applicable to other types of community technology projects.



Community members build a tower for a network in Myanmar. Photo by Michael Suantak of ASORCOM.

# APPENDIX A: HELPFUL GRANT-MAKING RESOURCES

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We used several good resources for grantmakers that are funding local community organizing projects:

1. *How Matters* (<http://how-matters.org>) has a number of articles on identifying meaningful community ownership and confronting poor funding practices.
2. The Foundation Center's collection of resources at Grant Craft was helpful in clarifying goals, processes and thinking through challenges. In particular, they have a guide and list of self-evaluation questions specifically for funding community organizing. These are a sample of useful reflection questions from those materials:

*Think of current or prospective community organizing grantees and reflect on the following:*

- *Are their leadership and members representative of the community they are trying to affect?*
- *Is their membership renewing and growing?*
- *In what ways do they develop their leadership?*
- *What are they learning and are they sharing that publicly?*

Communication around decisions in grant making is important, but not something that we always did well. Grant Craft provides some good guidance in this area. Their guide, “**Saying Yes/Saying No to Applicants: Strengthening Your Decision Giving Skills**,” is particularly helpful for those who agonize over saying no to good applicants.

# APPENDIX B: PROJECT GOALS AND METRICS WORKSHEET

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## DEVELOPING PROJECT METRICS

The purpose of this worksheet is to draw out the best method(s) to measure the progress of your project. There are three sections to this worksheet:

1. Developing project goals
2. Identifying your goal measurement methods
3. Identifying milestones

### **Understanding the purpose of your project.**

Answer the questions below to flesh out the purpose and trajectory of your project.

#### **1. Why are you doing this project?**

What issues are you trying to resolve and why?

#### **2. What kind of impact do you wish to create throughout your project?**

Who will be impacted and why is this important?

#### **3. What does success look like?**

What type of impact would you like to make in your community?

What does that impact look like?

### **Setting project goals.**

Read through your answers above. Look for themes and concrete statements that describe the work you will be doing. Use the template below to develop at least 3 to 5 goals that reflect your answers above. Goals should be **measurable**, connected to a **time frame**, and be **specific**. Here are a few examples:

Goal 1: The Detroit Community Technology Project will develop at least **15 community technologists** through a community training in the **summer of 2015** that will go on to build a **15 node mesh network in 4 neighborhoods**.

Goal 2: The Detroit Community Technology Project will hold **3 community workshops** in the **East, West and Southwest regions** of the city about community wireless in the **Fall of 2015** that will **teach people basic tech skills while simultaneously recruiting volunteers** and people to participate in housing mesh routers.

Now define 3 to 5 goals for your project. Use the color coding to identify what is measurable, the time frame, and the specific details of your goal.

**[name of your project] will ...**

**[name of your project] will ...**

**[name of your project] will ...**

### **Identifying goal measurement methods.**

There are several ways you can measure goals. What you are measuring will determine how to collect the data you need. If you are doing a training and want to measure how well you transferred skills and how many people you trained - in order to better understand your teaching methods, you may want to track attendance and do a pre and post skills assessment. If your goals are less about numbers and more about self transformation or relationship building you may want to collect testimonials by creating surveys that allow people to share their stories rather than circle "yes" or "no".

Here are a few examples of measurement tools you may want to try:

- Pre- and Post-test
- Surveys
- Transcribed conversations
- Attendance to events or workshops
- Written Reflections

The questions below will help you draw out what approach will work best for each goal.

**Goal:**\_\_\_\_\_

1. What in this goal is measurable?
2. Why do you want to measure that?
3. What do you plan to do with the information you gather?
4. When will you measure this goal?
5. How will you measure this goal?

**Goal:**\_\_\_\_\_

1. What in this goal is measurable?
2. Why do you want to measure that?
3. What do you plan to do with the information you gather?
4. When will you measure this goal?
5. How will you measure this goal?

**Goal:**\_\_\_\_\_

1. What in this goal is measurable?
2. Why do you want to measure that?
3. What do you plan to do with the information you gather?
4. When will you measure this goal?
5. How will you measure this goal?

### **Identifying milestones.**

Milestones can be events, the completion of lesson plans, specific meetings, the completion of a flyer design, the completion of a website, installation of equipment, or a decision that needed to be made that will impact the future of the program - or any other important progress made on the project.

Using the goals you developed for your project, identify milestones or specified points in your project that will lead you closer to reaching your goals.

\*Note you should have at least 1 milestone per month of your project.

**Milestone:**\_\_\_\_\_

- Date:
- Task(s) needed to reach milestone:
- Point Person:
- NOTES:

**Milestone:**\_\_\_\_\_

- Date:
- Task(s) needed to reach milestone:
- Point Person:
- NOTES:

**Milestone:**\_\_\_\_\_

- Date:
- Task(s) needed to reach milestone:
- Point Person:
- NOTES:

**Milestone:**\_\_\_\_\_

- Date:
- Task(s) needed to reach milestone:
- Point Person:
- NOTES:

**Milestone:**\_\_\_\_\_

- Date:
- Task(s) needed to reach milestone:
- Point Person:
- NOTES:

**Milestone:**\_\_\_\_\_

- Date:
- Task(s) needed to reach milestone:
- Point Person:
- NOTES:

# APPENDIX C: MONTHLY REFLECTION QUESTIONS

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## Reflecting on Our Work

There are many ways to make sure we mark milestones in our projects. This is an example worksheet we have used to reflect on activities over the course of a month.

### Monthly Reflection on Goals and Activities

Name of Project:

Name of person reporting:

Date:

1. What were our major activities this month?

*(What are our accomplishments for this month in relation to our overall goals?)*

2. What events did we hold this month, such as community meetings, trainings, etc?

*(What happened and who was there? What did we learn? How many people attended? How many men? How many women?)*

3. What are some challenges we experienced this month?

*(Did anything prevent us from meeting our goals or were there any unexpected elements that may have come into play like bad weather, lack of participation, or conflicts amongst the team?)*

4. How did we address these challenges?

*(What did we learn from addressing these challenges?)*

5. Are there any blog posts, articles, photos or flyers about the project this month?

*(What media artifacts did we make (graphics, flyers, photos, or documentation)?)*

6. Is there any support or resources we need moving forward with our project?

7. What are our major goals / milestones in the coming month?

# **APPENDIX D: FINAL REFLECTION QUESTIONS**

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## **SEED GRANT FINAL REPORT**

Project Name:

Location:

Your Name:

Date:

Duration of your project:

### **CONTEXT.**

Describe the community you are working in?

Who are the people?

What does it look like?

What is the history?

### **PROBLEM-SOLVING.**

Explain how you came to the conclusion that community wireless was solution to the issues you are facing.

### **PROCESS.**

What are the steps you are going through to arrive at community wireless?

What were the important milestones in the project?

### **ORGANIZING.**

Looking back, what were some important tactics or organizing methods? At any point did you change tactics or try something different?

**GOVERNANCE.**

What are the roles that different people or groups have in the network?

How are decisions made and who is involved?

How do you see this network managed in the future?

**COST AND SUSTAINABILITY.**

How will you cover or share future costs?

Who will be maintaining the network?

**TECHNOLOGY.**

What is the equipment and software of your network? (please include a map that illustrates your network).

**REFLECTION.**

Has anything surprised you about your work?

What has been easy?

What has been challenging?

What advice would you give to others working on a similar project?

# APPENDIX E: LIST OF GRANTEES

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## **AlterMundi, Argentina<sup>1</sup>**

AlterMundi is an organization that researches, experiments and disseminates technologies and practices that facilitate the development of a sustainable society, tending to the common good and in harmony with the environment. They will document the technical and social aspects of their successful network so others may replicate their model, and will add support for local applications support to their networks.

## **Alternative Solutions For Rural Communities, Chin State, Myanmar**

This project will build the capacity and stability of an existing community network established by the organization, and allow them to add local server content and increase digital literacy training.

## **Collective of Community Radio and TV in North Kivu [CORACON], Goma, Democratic Republic of Congo**

Building on their network of community media partners, CORACON will facilitate the establishment of a community network to support the creation of local digital media content and sharing of educational content. The network will provide a chat communication platform, radio programming, and educational resources in French. In partnership with Free Press Unlimited.

## **Falanster, Belarus**

Falanster was founded to create the foundation and conditions for sustainable development of civil and cultural side of our society through use of digital technologies. Falanster is establishing a Mesh Club to share information and practice about wifi and mesh networks in our society.

## **Fantsuam Foundation, Kafanchan, Nigeria**

Fantsuam Foundation will link five rural communities together and will provide services, including: telephony, local government budgeting and education. The project will also rebuild the Fantsuam solar system. To maintain the network, Fantsuam will train a new generation of wireless and solar technicians.

## **School of Computing University of Namibia [UNAM] and Glowdom Educational Foundation [GEF], Connecting Eenhana, Namibia**

Staff and students at UNAM are in partnership with GEF, an NGO that works to support learning amongst community members of the small town of Eenhana and surrounding villages. The project aims to support generating and sharing local content and to increase access of schools to educational content, including for learners and students at a Special school for Deaf learners. It also enables UNAM's students to apply their technical knowledge in the real world in supporting local technological empowerment. The evolving network includes an intranet of digital content, analog telephony, a digital noticeboard and solar-powered nodes.

## **Janastu, COW [Community Owned Wireless] for Devarayanadurga, India**

Janastu (“let it be people”) works as a technology research and development support for social and local needs. In partnership with Servelots and MojoLab Foundation, the project will build a low-cost, autonomous community-controlled network as part of the establishment of a program (hackergram) space. The project will pilot and document low-cost technology solutions, such as networked RaspberryPi’s to televisions.

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1. Learn more about the grantees: <http://communitytechnology.github.io/docs/seed-grants/>.

**Maria Luisa Ortiz Cooperative [CMLO], Mulukuku Micronet, Nicaragua**

CMLO will establish a community network to enhance its capacity to function as a hub for education, media access, local communication and civic participation. This work builds from their community radio station and Internet cafe.

**Nuvem, Fumaça Data Springs, Brazil**

Nuvem is dedicated to the development of projects related to different types of autonomy, whether in the arts, communications, nourishment and life in the rural areas in general. They will engage community members to set-up an autonomous network providing local applications and cellular service, in an area that currently has no communications infrastructure.

**Radio Maendeleo, Bukavu, Democratic Republic of Congo**

Established in 1993, Radio Maendeleo is a critical provider of news and cultural content in North and South Kivu. The project will help create digital infrastructure in Bukavu to enhance the community media ecosystem, provide a platform for sharing knowledge, and support their digital engagement activities. In partnership with Free Press Unlimited.

**Santa Unipessoal, Maubisse, Timor-Leste**

Santa Unipessoal's Youth Media Mesh project will conduct media-making workshops, create content on the local network for cultural preservation and historical documentation projects, and build a community wireless network linking various sites in Maubisse. The project will be led and maintained by Leublora Green School, the first informal educational institution in the country to teach Timorese youths about sustainable use of natural environment and resources, its impact on their lives, and the importance of sustainable development.



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