

CREATING OUR OWN CURRENCY

in Columbia County

Report prepared, March 2019, by:

NATHANIEL WILLIAMS

SETH JORDAN

SOCIAL THEORY & ACTION PROGRAM INTERNS



WHAT IS FREE COLUMBIA?

Free Columbia has been creating arts and educational programming in Columbia County for ten years. Home base is in the center of the county in the small village of Philmont. The initiative is structured like public radio: no pay walls, grassroots funded, and independent. Over the years the offerings at Free Columbia have expanded and, in the fall of 2018, Free Columbia carried out its first Social Theory and Action Program.

The program was designed to offer practical education in social theory through engaging with issues in a concrete place. It is theory related to local action. The fall 2018 program focused on monetary theory and design—specifically, the creation of a currency for local economic cooperation and democratic giving. The program cost \$30,000 to run. Most of the funds were raised from over 300 supporters in a crowdfunding campaign in July of 2018.

Seven interns were accepted to participate in the program. It began on September 18 and ended on November 17. Most mornings we sang and studied together (primarily texts concerning social theory and monetary design), and most afternoons we went out into the community. The program began with some local community service, as well as a number of field trips to related initiatives. We visited the Schumacher Center for New Economics in Great Barrington, MA (home of the BerkShare currency); the headquarters of the Hudson Valley Current in Kingston, NY; and two organizations in NYC—a large financial investment office and the ArchCare TimeBank. (For more on these initiatives see “Related Currency Initiatives” below.)

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We invited scholars, innovators, and experts to visit us in our working space in Philmont, hosting Jean Giblette, who helped start a currency in Philmont in the '90s, and Eric Harris-Braun, one of the founders of Holochain. We also engaged professionals in the field of software engineering, development, and security in order to better understand the possibilities open for developing a digital currency. We developed surveys for local businesses and social/cultural initiatives and conducted 30 interviews in the field (see “Research Interviews” section below).

The program culminated with a presentation of our findings on November 17 at the Philmont public library and with the writing of this report. The report was initially authored and compiled by our whole team, but Nathaniel Williams and Seth Jordan brought the material into its present form.

As we began this journey we set our gaze on the whole of Columbia County, but our focus soon narrowed. This narrowing happened after our first interviews when we realized that our home base was located in a village that posed special challenges for a project like the one we were envisioning. And so we resolutely set our primary point of perspective on the streets of Philmont, returning again and again to the question of how a local currency might serve life in the village and its immediate proximity. From the start we recognized that, in a village with high levels of poverty, where people rely heavily on food stamps, the scarcity of federal dollars obliterated the feasibility of creating a currency that had to be exchanged with the national currency—a model that many successful currency projects are based on. This introductory remark is only intended to clarify the disproportionate focus on Philmont in this report.

At the core of social theory is the question, How can we think and act to create a good society? From a certain perspective, Philmont is best able to show us some of today's most pressing challenges and help us get that question right.

A PORTRAIT OF THE LOCAL AREA

Columbia County is situated in the center of the Hudson River Estuary, an area well known for its beauty. Appreciation has grown in recent decades for this valley with its hills, mountains, waterfalls, and forests. Traveling through the area one passes many small farms, old mills, waterways, and bridges, occasionally indicated by some historical marker. The place names stand out as reminders of the many **diverse people** who have made their lives here.

The local Agawamuck Creek has its name from the people of the Mohican nation. The estuary that is now called the Hudson was once named in their language, “Mohicanituk,” meaning “the river that flows two ways,” or “water in constant motion.” These people took the side of the colonists as they fought for their freedom against the English monarchs. It is a tragic truth that despite this alliance the colonists eventually forced the Mohicans westward. They now reside in Wisconsin and are remembered here mostly through the names they left behind.



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The largest tributary to the Hudson is the Mohawk River, named after the founding nation of the esteemed Haudensaunee confederacy (also known as the Iroquois confederacy). The Mohawk's eventually gathered four other nations into this confederacy of peace and democracy. Their participatory practices in governance, and the absence of poverty among their nations, inspired admiration and imitation by early European migrants, such as Benjamin Franklin, Thomas Jefferson, and Thomas Paine.

Many other waterways and places have Dutch names that are reminiscent of the period when a few Dutch families owned millions of acres of land in the valley. For the time, the Dutch were markedly tolerant, a quality that residents of current day New York still foster and value. New York was at that time "New Holland" and was organized by a commercially motivated feudal spirit. The unjust character of **land access** led local farmers to organize militias and ignited the anti-rent war. Here, the pivotal issue of land access that had led to the expulsion of the Mohicans, continued to plague the residents that remained. The farmers, many of whom were veterans of the revolutionary war, joined together in armed revolt against the Livingstons and other large landowners. In the city of Hudson, the leader of the anti-renters, Dr. Boughton (also known as Big Thunder), was imprisoned for two years, and for these two years farmers boycotted the city. Boughton was pardoned and the violence was quelled as lease laws were reformed and the great land holdings gradually broke up.

Talking with farmers today, one discovers that it's still difficult for them to gain access to the land. Often this is not because the land is being cultivated, but because it's being purchased for large private residences. It is not uncommon for landowners in Columbia County to have their primary residence in New York City, which is only a couple hours drive. Given that land and the current valuation of food production and land stewardship are almost exclusively traded as commodities, and that the land in the county is a prime location for second homes, land prices in the area are often out of reach for farmers. The Irish have a saying that the thing about the past is that it's not even past. In some ways this reflects the issue of land access today.

And so the struggle for land access continues. Farmers in the area have been at the forefront of trying to forge new ways to work as producers and land stewards in these difficult conditions. The Columbia County Land Conservancy, besides its regular efforts in preserving public lands, has also focused on helping farmers create lease agreements with landowners, as well as on raising funds to help them purchase land. Soul Fire Farm, near Albany, educates and inspires a younger generation of farmers in becoming aware of the long, intertwined history of race, social justice, farming, and land rights.

Making one's way around the county today, small farms and cattle pastures open up in the wooded tracts, and one might even see a field of sheep grazing here and there. These animals were major contributors to life in the area in the recent past. The **production of wool** grew so intense in the 19th century that the land was almost entirely deforested and turned into pasture for sheep. The forests that characterize the



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area today are all second growth. The loss of industry and the creation of synthetic fibers played a role in the end of the local wool era.

Just as pastures have been overgrown, it is not uncommon to see brick ruins in the forests falling in on themselves, being swallowed by trees and vegetation. Columbia County was once home to a number of **bustling mills**. The village of Philmont, once known as Factory Hill, became a thriving hub of production during the industrial revolution. Here the local Agawamuck Creek quickly drops about 250 feet in a series of beautiful waterfalls. And so it was here where the water was harnessed and directed into various holding ponds. An entrepreneur could then purchase rights to those ponds in order to power a mill or factory.

Philmont was part of the nation's economic boom during the industrial revolution and then, in turn, was part of the bust. Industrial leaders and investors relocated where labor was cheaper, taxes lower, and there was less regulation. This whole revolutionary period marks the beginning of an age of significant economic growth, unprecedented in human history. Just two and a half centuries after it began, we are now facing the global limits of growth and the challenge of sustainability.

One can also read in the local place names the history of the area's **creative culture**. The valley has been host to many influential artists. The bridge leading over the river from Hudson to Catskill—the setting of Washington Irving's story *Rip Van Winkle*—is called the Rip Van Winkle Bridge. Traveling over the bridge you can see Olana, the estate of Frederic Church, one of the most influential members of the Hudson River School of painters. Following the water north towards Albany leads to the Ichabod Crane School.

More recently the valley has been home to many artists from the New York School of abstract expressionism. Many Hudson storefronts are now filled with galleries and in Kinderhook an old school was recently transformed into a gallery. The number of artists in the the capital region, and especially Columbia County, stands out across the nation. This is also true of the number of not-for-profits dedicated to cultural and artistic visions. These characteristics of the area have caused many to suggest that culture, farms, and nature be worked with as a way to create an economy that attracts tourists and visitors.

In addition, the amount of **voluntarily organized associations** dedicated to social-cultural work is unusually high given the population. It is the culture of volunteering, fundraising, and philanthropy that supports WGXC—the grassroots radio station in Hudson—the many places of worship, and the volunteer fire and medical associations. Historically, it has been the spirit of free initiative, of having a good idea to improve community life and rallying others to help make it happen, that has led to the unfolding of an especially robust *civil society* in the US. Some political scientists have pointed to the decline of this spirit of free initiative in recent decades.

What are people doing for work in Columbia County today? Healthcare, social work, education, and retail are the main areas where people work. Major employers include the school system, the hospital, and the various care networks. Care work is especially focused on elder care, which is part of a national trend in the US where population is aging (the Census Bureau has projected that older people will outnumber children within the next two decades). On the flip side, there's a lack of services for children in Columbia County. This lack has led some families to relocate.

Today, **good work** is a central concern for people living in the region. The boom and bustle of industry, that once drove such places as Hudson and Philmont, is no longer. It is in these two places today

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where poverty levels and the need for social services, such as food stamps, are especially pronounced. In addition, an initiative among local emergency service providers shows Philmont as a hotspot for emergency calls related to opioid abuse.

One interesting development is the creation of new views on the nature of good work. This can be seen in the efforts of local businesses and institutions such as Etsy, the Good Work Institute, the Schumacher Center for New Economics, and the Hudson Valley Current. These new views are also generally aligned with larger national movements such as BALLE (the Business Alliance for Local Living Economies), SRI (Socially Responsible Investing), and the new “benefit” corporate form that advocates for three bottom lines—financial, ecological, and social.

The era of rapid economic growth has reached a crucial moment. While the exclusive focus on growth has led to certain miraculous results, a broader view recognizes that economic growth must be aligned with ecological sustainability, social capital, and good governance. These, along with the elimination of widespread inefficiencies and waste in the free market system, must all be considered in order to develop sustainable ideas and initiatives moving forward. This is what is at the root of the United Nations’ Sustainable Development Goals. These new views on economic cooperation and organization see great potential in voluntary shifts in economic culture and practice. In different ways they suggest that a more concrete knowledge of production, distribution, and consumption processes can play a role in more sustainable and social businesses. This is especially true of the work of the Schumacher Center and the cooperative or “associative” economic practices they cultivate there. These practices lie at the root of the revolution in community financing of small farms around the country known as “community supported agriculture.”

Over all, these views of good work transform what is often experienced as an anonymous price tag in economic consumption into an informed economic relationship that contains social and ecological values. They stand in stark contrast to the dominant ways of conceiving business only in terms of self interest and a hyper focus on financial ledgers.

This sketch of the characteristics and history of the area is, of course, incomplete. It is offered as a backdrop for the results of our interviews and our ideas for a local or regional currency initiative. For more information, see the appendices, references, and endnotes.

REGIONAL CURRENCY INITIATIVES

During the program, we took a number of field trips to learn from other nearby currency initiatives. In what follows, we share a brief picture of those initiatives and the type of currency they have created.



First, we visited the Schumacher Center in Western Massachusetts, which is home to the **BerkShares** currency, a physical currency that’s transferable with the US dollar at many local banks. Berkshares have

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the same face value as federal dollars but the exchange rate is 95 dollars to 100 BerkShares, so users receive a 5% discount when they buy things at participating local stores (the big box stores don't accept them). This drives more business to those shops. The stores can transfer the bills back to US dollars if need be, but then the 5% exchange rate works against them, so they also try to spend them locally. In effect, the currency acts as a loyalty program for local businesses, strengthening the local economy and encouraging the creation of new "import-replacing" local businesses that will accept the currency.

Next we visited the **Hudson Valley Current** in Kingston, NY. The current is not transferrable with the US dollar—you can't "buy in" at any bank. Instead, you join what is known as a "mutual credit" system, basically an online bookkeeping system for local producers. When you sign up, you offer goods and services on the online market and you receive a line of credit to start purchasing things from other producers. When you purchase something for 5 currents, your account is debited and the vendor's account is credited. In effect, the currency is issued by the users at the point of sale.

The last currency we visited was the **ArchCare TimeBank** in NYC. Here, the currency is also not transferrable with the dollar but is based on people's time—the unit of account is an hour of a person's time. Everyone's hours are equal in a time bank, whether you're out buying groceries for another member of the bank or having a member fix your sink. This system has a strong sense of equity, social justice, and community building baked into it. It works best with services, and rarely, if ever, facilitates the exchange of goods, which are harder to value in hours.

Besides these three currencies, we also learned the history of a **currency in Philmont** that existed for a short time in the 1990s. It was a physical bill that was non-transferrable with the US dollar. Participants decided how much of the money they were willing to accept—how many of their goods and services they would offer in exchange for the currency—and then



they were issued bills for the value of what they had promised to sell to others. So the amount of money was based on all the available goods and services in the system, creating, in effect, a kind of local bartering network. Unfortunately, the participating community was quite small and not everyone wanted what was offered, so the money tended to pool around certain goods, creating imbalances that ultimately were too much for the system to bear.

RESEARCH INTERVIEWS

Could a regional currency increase community-wide involvement in improving the quality of life for those living in Columbia County by strengthening cooperation between businesses, as well as with non-profits?

This was the cardinal question that drove the first part of our research. In order to understand the feasibility of implementing a regional currency in Columbia County, the research team designed an interview process based on two different surveys—one for businesses and one for nonprofits (the social-cultural organizations at work in civil society). Our aim was to understand and map the economic and cultural landscape of Columbia County, in order to then translate our findings into an assessment of the feasibility of a regional currency. Feasibility was characterized by:

- Getting an initial informed sense of whether local stakeholders were interested in the idea of a regional currency; and if so,
- What elements we would need to consider and integrate into our design for the currency to effectively work based on the actual needs of those surveyed

Some notes about the surveys and interview process

The business survey was organized into five themes with a total of 46 questions. Sections included: general/mission; internal relations; external relations; local currency; and consumer needs.

The cultural organization survey was organized into six themes with a total of 33 questions. Sections included: general/mission; fundraising/donors; local demographics; budget; local currency; and consumer needs.

Both surveys included a consumer needs section at the end, with the aim of mapping the local economy through charting consumer and business value chains.

Due to time constraints, we allocated two weeks for surveying businesses and cultural organizations. Having the objective of getting a varied mix of different kinds of businesses and cultural work (types of work and/or goods, size and location, etc.) we created a general list of local cultural organizations and businesses in Columbia County. We then randomly phone banked our list of potential interviewees, as well as did walk-up introductions to storefronts, and booked approximately 80 hours of potential interview time on a first-come, first-serve basis with the main objective of booking as many interviews as possible. Each interview was completed by two interns (one interviewing, the other taking notes) at the interviewee's place of work.

In the end, we surveyed a total of 30 local initiatives—9 cultural organizations and 21 businesses.

After collecting our surveys, our next step was to review our findings, reflect on them, and qualitatively synthesize our data in order to begin determining feasibility. We held one intensive team session where we reflected upon all the data collected from our interview process so as to create a shared understanding of the unique business and cultural profiles we had encountered during our process. In the

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course of that session we found insights into what it means to be local, highlighted challenges and opportunities, and recognized an abundant feeling of love, hard work, and compassion flowing from the interviews we completed. Though the feasibility was not analyzed quantitatively in this session, we strongly sensed the desire for a regional currency from the interviewees' statements around reciprocity, giving, and commitment to local values which were found in our results. Here are some key findings from our survey results:

Businesses

The businesses we surveyed were located in Chatham, Craryville, Ghent, Harlemville, Hudson, Philmont, and Austerlitz.

We found that all of them expressed strong **values and beliefs**. Of these, there was a pronounced value in family, including seeing employees as family. A number of individuals expressed a strong desire to see the community thrive and to work more collaboratively.

The **top 5 reasons that businesses gave for not buying from other local businesses** were: availability (76.2% of businesses); affordability (42.9%); the need to buy smaller quantities (33.3%); the need to order in bulk (28.6%); higher quality of goods from non-local sources (14.3%).

All businesses relied on **technology** to some extent. Every business relied on both computers and phones, and many used social media, digital POS, and phone apps to improve business performance.

Some of the **challenges** that were expressed included finding and retaining capable workers, lack of certain types of infrastructure (housing shortages and unavailability of public transportation), and the changing commercial landscape with many people shopping online instead of in-town.

Some **opportunities** that were expressed included tourism and a willingness for businesses to collaborate and partner with one another.

We asked businesses about their relationships with formal and informal **associations and clubs** (i.e. the local Chamber of Commerce, labor unions, Rotary club, etc). 18 of 21 businesses surveyed were members of some kind of association, while many noted that they wished it was more meaningful.

We asked businesses what their opinion was of local business alliances, or coops for **shared ordering**: 17 businesses replied that they either like the idea, are interested in it, or already participate in this model.

We asked the businesses about their **relationship to cultural organizations** in their area, to see if they receive support or contribute to local organizations, with the aim to begin understanding the relationships between local business and local social-cultural work. 18 out of 21 businesses have some kind of tie to local giving and working with cultural organizations.

Concerning the idea of a regional currency, 16 out of 21 businesses said they were interested. Their feedback was quite helpful and made it clear that other businesses would have to buy in (they would have to be able to use it and not just accept it) and that it would have to be easy to use for themselves and their customers.

In the end, 100% of businesses interviewed said yes to being contacted in our next stages.

Cultural organizations

The cultural organizations we surveyed were located in Ghent, Hillsdale, Hudson, and Philmont.

Many of the cultural organizations depended heavily on **local donors**, though there was also a spectrum, with some organizations receiving a significant portion of their support from outside the county and many of them deeply dependent upon foundations.

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8 out of the 9 organizations received some **support from local businesses** and/or business associations.

Most of the organizations belonged to some sort formal or informal **association or club** (i.e. the local Chamber of Commerce, labor unions, Rotary club, etc).

Among the organizations, as well as the people they serve, there was more of a mixed relationship to **technology**, with it seeming perhaps less integral to the everyday activities of some of these organizations.

We asked businesses what their opinion was of local business alliances, or coop for **shared ordering**: 17 businesses replied that they either like the idea, are interested in it, or already participate in this model.

Concerning the idea of a regional currency, 7 out of 9 cultural organizations expressed interest in using it.

PROPOSAL

Sustainability and resilience are clear challenges for the coming decades. As the main indicator of wealth, gross domestic product offers a skewed picture of our economic, social, and environmental health. It does not include “externalities” such as the loss of biodiversity, fresh water depletion, the alteration of the nitrogen cycle, pollution, or the loss of social capital. Sustainable and resilient development will require a “thickening” of the local economy (more local businesses) and a deepening of the capacity for economic judgements. A local currency can be a tool to explore how this larger development could look in a specific place. Due to the natural constraints of smaller regions (such as Columbia County), economic production, distribution, and consumption processes are much easier to understand and engage with on a regular basis. This can lead to a knowledge that can counteract self-interest through expanding awareness of social and natural context. This vision was most clearly articulated in our conversations with Susan Witt from the Schumacher Center. Local economic growth can also coincide with the growth of social, ecological, and cultural capital. It was also clear from our interviews that there is an existing interest in supporting locally owned and managed businesses. This willingness is fertile ground upon which to grow local solidarity.

The results of our research led us to the concept of a *currency for local economic cooperation and democratic giving*. It is presented below, first as a sketch of the basic design, then followed by a narrative description of the reasoning and a two-phased strategy for creating the currency as an action research project.

The basic design of such a currency would include the following elements:

- The use of a closed **mutual credit system**, similar in its most basic concept to the Hudson Valley Current
- An **online platform** to facilitate economic cooperation and democratic giving—both a market for goods, services, and collaboration, and a place for volunteering and giving to social-cultural initiatives
- The encouragement of democratic giving through the use of **depreciation**—a small, “negative interest” on the currency that accumulates into a “giving account” through which users can patronize local cultural work
- The creation of a **Free Culture fund** that would match the donations given by users

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- And a **solidarity rate** to multiply the match given to certain areas of work. For instance, donations given to social-cultural work in communities struggling with poverty or the aftereffects of exploitation, racism, slavery, or other social traumas, the multiplier affect would increase, encouraging free initiative for the common good in those parts of society most in need

Why mutual credit?

In a mutual credit system, money is issued whenever you provide a service to someone else in the network. Your account is credited the agreed-upon amount, and their account is debited. The currency comes into existence through every exchange in goods and services. It is, in effect, an IOU. The money then exists in a “closed” system, meaning it’s not transferable or “tied” to any other currency (though it’s generally “pegged” to the federal dollar because people know the worth of a dollar). This is an important feature when federal dollars are scarce and people already rely on food stamps to buy their groceries. In addition, if the federal dollar ever undergoes significant inflation or deflation, the mutual credit system can “unpeg” its currency from the dollar and peg it to something else with a recognizable value to local people—a loaf of bread, a cord of wood, or a jug of maple syrup. In this way, it is potentially a tool for resilience in times of recession.

In a mutual credit system, the online platform is accessible to vendors, service providers, and others in the community. In addition, the mutual credit system is not heavily regulated and does not require cooperation with a bank or a money services institution. There’s less red tape. Such a platform also provides an excellent marketing opportunity for local businesses. And the localizing of economic processes can also reduce the pollution created from ordering products from afar that are available locally. While this initiative would be local in nature its implications would not, be it a success or failure.

Why democratic giving and depreciation?

The mutual credit system might encourage cooperation and exchange, yet it is still basically transactional in nature. It is another matter to create within the design of a currency itself, a social institution—a community-wide agreement—that facilitates giving to social-cultural work on a regular basis. This is done through a small, regular depreciation of the currency, which is directed into a user’s “giving account” to be allocated by the user to the initiative of their choice.

In this way, the currency encourages a unique, often overlooked, aspect of social life—the particular freedom to rally around ideas and initiatives that are for the public good but are not primarily economic in nature. Not all social goods are commodities. These are the goods that are often cultivated by the social-cultural organizations of civil society. Education, religion, journalism, science, social-work, and the arts, all direct their work generally towards the greater good, the progress and uplifting of humanity. Such work is not necessarily profitable and so often requires the free support of the community. The nature of such social-cultural work has been recognized, protected, and promoted in the US since its inception: “Being sensible and cultivated persons and not Chicago School economists, the Founders recognized that ‘Science and useful Arts’ are to some extent a gift economy. Gratitude, the pleasure of discovery, the impulse to self-expression, and devotion to a common enterprise motivate creators quite as much as lucre. Of course everyone needs to make a living, but the real point is to keep the tune flowing, the conversation humming, the gift in motion. Poets, jazz musicians, filmmakers, physicists, and coders know this.” (Scialabba, 92).

In addition, depreciation has the effect of weakening the storage value of the currency and increasing its value as a medium of exchange, which can, in a subtle but powerful way, counteract self-interest and the desire to hoard. Depreciation means you simply can’t keep the money forever. From this perspective, money becomes an invitation to step out and become part of a larger social process through looking out into the community and sending support where you can see it’s needed. And so it creates the possibility of experiencing currency as a movement as opposed to a thing—a verb instead of a noun.

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Why a Free Culture fund and a solidarity rate?

Though the psychological effects of a depreciating currency can be significant, the outer effects can still be relatively small—too small to counteract in a meaningful way the inequality of our current economic system.

While overall economic production has never been higher, inequality in wealth distribution is also extreme. This is a significant concern for a number of reasons, one of which is the health of civil society. Growing inequality means that social-cultural organizations depend on an increasingly small number of people for their support. But, at the same time, it's impossible for a few wealthy individuals to know about, be moved with gratitude by, and then support the countless worthy initiatives around the country. It is the actual *experience* of gratitude and appreciation that is the best guide for distributing gift money to civil society. And so greater *philanthropic equality* (where the public decides which initiatives are worthy of support) could encourage more local problem solving across the country. It is important to recognize this difference: the difference between *democratic* philanthropy and *oligarchic* philanthropy.

For this reason, a Free Culture fund will be created with money given by donors who recognize the significance of democratic philanthropy and want to maximize their own impact by allowing the actual perception and enthusiasm of local people to guide the direction of philanthropic dollars to wherever good, deserving work is taking place.

The Free Culture fund will multiply donations made by participants in the mutual credit system based on a "solidarity rate." The rate will vary depending on the type of work and its location. If the social-cultural work is located in a community that is struggling with poverty or the aftereffects of racism, exploitation, or other social traumas, the rate will be higher. It would be a misunderstanding to think of this as some kind of remuneration. It is simply about the common good. Money is unable to heal the traumas of the past. Other initiatives are needed for this purpose. But we can address the systemic inequalities in our communities which have resulted from the past and still exist today. It is necessary for the good of the whole that we do so. It has been clearly shown that in education and social-cultural work, radical inclusion has a positive affect on the overall good and on the creation of community wealth generally.

The Strategy

Phase I: The creation of a local business and services association in the village of Philmont

The first phase in creating such a currency would consist of a three year period of intensive work focused primarily in Philmont and the town of Claverack (of which it is a part). It would involve an expansion of Free Columbia's Social Theory and Action Program and the creation of a local services association. In its initial stages, the manager of the association would work with the Social Theory and Action Program team—its director and student interns—to research specific opportunities and challenges in Philmont and Claverack.

Out of this research, they would determine key areas for intervention. These would be identified through a village/town wide value chain research project, door-to-door canvassing, and a series of summits and ongoing collaborations with existing organizations and initiatives in the area. Interventions would consist of strategic initiatives to connect unused local resources (capacities and assets) with unmet needs. These could be in the realms of healthy and affordable food, additional transportation, elder or child care, or any number of other things.

Alongside this work, the program and association would network with individuals and nonprofits doing social-cultural work, to begin developing the democratic giving part of the platform and raising funds for the Free Culture fund.

The program and association would also further explore the feasibility of collaborating with the Hudson Valley Current and building upon their existing platform in order to create a currency in Philmont.

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The objective of Phase 1 would be to have a robust local services association with a number of initiatives that local townspeople and program interns would help run, and a basic platform that would facilitate exchanges between members of the association through a mutual credit currency.

A mixed fundraising approach of grassroots support and grants would be necessary to secure funding for these first three years.

EXPENSES FOR PHASE ONE

Personel	\$67,500	
Dues and subscriptions	\$500	
Promotion and advertising	\$2,000	
Office supplies	\$2,500	
Legal and auditing	\$9,000	<i>Expert legal advice is \$900 per hour in this field</i>
Technology services and maintenance	\$8,000	
Rent	\$6,000	
Utilities	\$3,200	
Office furniture and equipment	\$2,000	
Phone	\$250	
Study materials and supplies	\$1,500	
Meeting expenses (travel, etc)	\$750	
Events	\$9,000	<i>Two small events and a Free Culture festival</i>
TOTAL	\$112,200	

We believe it is the right time for such a project for the following reasons:

- There is a robust culture of giving in the US and increased interest in democratic giving
- The social-cultural sector in our area is uniquely vibrant
- There is a growing understanding of the need to support local business
- There are many capable individuals of good will in the community
- There are a number of neighboring local currency projects that have been successful
- There is a standing offer to collaborate with the Hudson Valley Current
- We are only a short drive from an incredible resource for this work—the Schumacher Center, which is the largest research institute for local currencies nation-wide

Phase II: The creation of a currency for local economic cooperation and democratic giving

The first phase would offer important learnings and lessons on a smaller scale, building up a foundation of relationship and initiatives that will be essential for sustaining the initiative in the long-run. The full scale initiative would only unfold in the second phase.

The basic design and social intentions of the currency (as outlined at the beginning of this section) do not change in phase two. The main change is that the currency would expand from a local currency (for

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Philmont and Claverack) to a regional currency (for Columbia County). Some new, characteristic features that would likely come to the fore in this phase include:

1. A custom technology and design process. This would mean gathering a design team to research technological possibilities for a secure platform that easily interfaces with existing software programs being used by local businesses. The team would then need to build and test the platform in the field with users.
2. Research into the number and type of enterprises needed to ensure sustainability. (One thing we found is that a complimentary currency is only sustainable when there are enough enterprises so that the currency doesn't "pool" at individual enterprises that have nowhere to spend it.)
3. A "pledge-to-participate" drive. Instead of launching the currency and *then* signing up enterprises to use it, we would sign up those enterprises *before* launch, based on the research into how many enterprises are needed in order to ensure sustainability. This way, early adopters of the currency wouldn't have to wait for others to join, leaving them with money they can't yet use. (This strategy is modeled after an "all-or-nothing" crowdfunding campaign, where people pledge to donate, but don't actually donate until the funding goal has been reached. In this way, if there's ultimately not enough support for the currency to expand in a successful and sustainable way, it is apparent from the very beginning.)

We recognize that the strategy outlined above is only the briefest of sketches, but we think it is sufficient to initiate the project based on a sense of responsibility and realism. We know that such a project, once initiated, will unfold in surprising ways, but we are confident in the basic features we've described. Through our research into the local area, we have become inspired by the warmth and commitment of the local people, and their desire to work cooperatively and see the area flourish. And through our research into monetary design we have become enthusiastic about the possibility of a complimentary currency to increase cooperation in the local economy and help grow initiatives that are doing the important work of cultivating the social-cultural life of our region.

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APPENDICES

1. Technology

When we use money in our everyday lives, we encounter technology all the time. From the security features on our paper currency to paying digitally through online shopping platforms, technology plays a large role in any currency's service and operation. What mediums of payment are allowed for your currency's network—paper bills, online payments, mobile apps, chip cards, EBT, WIC, tax payments, bank payments, or loans? What is the user experience of using each medium of payment? How can technology platforms, and their unique features, facilitate the culture of your currency?

Out of our research team emerged a storytelling team, legal research team, and technology research team. As a technology team, we learned about possibilities along the way that we had not even considered initially. For example, multiple German regional currencies get their technology solutions delivered from Regiogold. Regiogold is an umbrella organization that works cooperatively amongst their regional currency networks to create softwares and provide electronic complementary bank accounts for each user in the respective networks.¹ This way of forming cooperative solutions, and the possibilities that can then emerge from them, is just one imagination for how to structure technology development. We were left wondering: how did these German currencies decide to structure development in this way?

From seeing all these possibilities, we arrived at the question: what is the right technology solution for our currency and how do we structure our development process? On November 3, 2018, we experienced a turning point through a generative conversation with our technology advisor Pete Lemire. Pete shared with us that the foundational fork in the road—our first fundamental development question—is: will we develop our technology solution with an out-of-the-box licensed application, or initiate a new development process?

We soon realized we are not ready to decide how to structure development. First we need to more intimately know what services our technology will strive to provide (akin to Service Level Agreements), as well as what type of operation we as a team are striving to have build and maintain the technology (akin to Operational Level Agreements).² Pete illuminated that to define our modes of service and operation, we

¹ <https://www.dw.com/en/mulling-alternatives-to-the-euro-in-greece/a-18532883>

² <https://www.bmc.com/blogs/ola-operational-level-agreement/>

need to answer some research questions. We realized we did not collect the data needed to answer these questions. With Pete, we were able to clarify what we've already researched and discover the building blocks that we still need and a pathway that leads us to being able to answer our emerging questions.

Following Pete's advice, we start by using the Objectives and Key Results goal management framework to assess what is needed from any proposed technology solution for this project. From there, we present our emerging technology research questions. We then move to deciding on a specific development process, which culminates in an inconclusive conclusion in answering our first fork: will we use an out-of-the-box licensed solution, or initiate a tailored development process? Finally, we present our emerging needs and budget, as well as our next steps moving forward towards a technology solution.

In creating a proposal for the technology aspect of our currency project, we are striving to answer some fundamental questions: is this different from all other complementary currencies and if so, why? What is the currency application that is best suited for this community, and if we decide we cannot use one that already exists, why? What deeper shifts are we working for, and who are we serving: Free Columbia, Philmont, Columbia County, or something larger?

OBJECTIVES AND KEY RESULTS

To answer these questions, we will start with defining our Objectives and Key Results (OKRs) for our complementary currency initiative. Perdoo describes OKRs as a "goal management framework." Each OKR has a target to be achieved, referred to as an Objective, and up to 5 Key Results, to "measure progress towards the Objective."³ Or, as described by writer Niket Desai:

"Any initiative has an objective. The goal of setting an objective is to write out what you hope to accomplish such that at a later time you can easily tell if you have reached, or have a clear path to reaching, that objective."⁴

We need to determine exactly what OKRs we need and how we will achieve them in order to bring into consciousness our priorities, goals, and benchmarks for measuring our success, in service of keeping us on target towards success. By defining our OKRs, we illuminate a path forward and discover further research questions in the process.

We have discovered a need to establish certain emerging OKRs based on our research and consultation thus far. Our research has led us to a general understanding of our

³ <https://www.perdoo.com/okr/>

⁴ <https://medium.com/startup-tools/okrs-5afdc298bc28>

Objectives, with an appreciation that we do not have research on how we want to measure our Key Results. There are a variety of themes for these emerging OKRs.

- Adoptability
 - Example objectives: Reach a tipping point for adoption amongst Philmont residents, interdependent producers/consumers and key players.
 - Example key results: Within 6 months, 75% of Claverack's food stores will have a local produce supplier that uses this application. In the first year, 50 businesses will download our application.
 - Based on our survey research, the need for interdependence in adoptability emerged; for example, that a restaurant would need the local farms to also adopt this application service. In addition, we learned from many of the currencies how important it is for their to be a robust community of participants.

- Usage rates
 - Example objective: Maintain a steady membership base that uses the currency regularly.
 - Example key result: After two years, 50% of Philmont residents will be using our application at least once a month.
 - The Ithaca HOUR has declined in usage partially due to not following the trend from paper currency to digital payment options.⁵ We can observe the importance of following trends and ongoing user needs in achieving optimal usage rates.

- Integrability with other payment systems
 - Example objective: Existing businesses are able to use our application with their primary transactional and accounting technologies.
 - Example key results: At launch, all participating businesses will have a card reader that accepts the local currency. After 3 months, the application will work with 50% of Point of Sale machines in Philmont. Prior to launch, all participating businesses will be trained in how to handle local currency payments through Salesforce.
 - Based on our survey research, businesses expressed the need for it to integrate with their existing structures including POS systems.

- Ease of use
 - Example objective: Businesses, nonprofits, and users each describe this application as easy to use.
 - Example key results: Within 6 months, 80% of surveyed users will describe this application as easy to use. Each week, businesses will not have to spend more than 3 hours managing the local currency transactions.

⁵ <https://hudsonvalleyone.com/2014/10/06/introducing-our-regional-alternative-currency-the-hudson-valley-current/>

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- Based on our survey research, a business expressed the need to not have to do bank runs to exchange paper currency for American dollars.
- Sustainability & resilience
 - Example objective: The monetary design of the currency has a built in financial sustainability feature that would be able to fund currency administration given enough business.
 - Example key result: Within 5 years, the currency will bring in enough revenue to pay for the salary of a full-time executive director.
 - Based on our consultation with Chris Hewitt and Susan Witt, we estimate a \$150,000/year operating budget.
- Ease of maintenance
 - Example objective: Maintaining the technology solution fits with the currency administration workflows without constant disruption.
 - Example key result: From months one to six, our team will spend no more than 6 hours per week troubleshooting issues with our technology solution.
 - Based on conversations with Chris Hewitt, the Hudson Valley Current spends around 4 hours per week as a team working with their Cyclos application. We want to determine how much time and energy we are aiming to spend on our application as maintenance.
- Development cost and longevity
 - Example objective: Development costs and time accurately match the scope of the project.
 - Example key results: Software development processes leading up to launch will not cost more than \$200,000. The application will launch within 3 years.
 - If we are going for a large scale project, our actions should be rooted in research and real analysis before moving forward, and this OKR can have more flexibility. However, as noted in the Phase 1 & 2 dichotomy in the main proposal, the possibility of a smaller scale currency is still valuable, and in this case, we would emphasize the need to move forward in an inexpensive way that also maximizes time efficiency.

As previously stated, we recognize the value in determining exactly which OKRs we need. Since we have not specifically been researching in service of defining OKRs, we will need more research to determine how we want to accurately define each OKR for our project, and to find other new OKRs that may emerge with more research. This will be achieved primarily through some combination of further analysis of our existing survey research, generative conversations within the team, further field research, consulting with professionals/advisors, and external academia/reports. This process of identifying what performance objectives and key results are needed from this application

is crucial before developing the application, and certainly before deciding how to structure the development process.

EMERGING RESEARCH QUESTIONS

Through the initial process of examining our Objectives and Key Results, we have found new and evolving research questions relevant to any technology solution. Three examples include:

- What features will attract people to the application and sustain their usage of it?
- What operating systems does this application need to primarily be designed for? Are people using mostly their phones or computers/browsers?
- How is the internet coverage in Columbia County? Are there areas where users will lack service?

These questions paint a small but expansive picture of our research blind spots that are also functioning as potential acupuncture points for the ultimate technology solution. Whether or not all these questions are answered before starting application development, we see the need to acknowledge them as we move forward. Through our consultation with Pete Lemire, we decided our approach would be to decide on the absolutely strongest solution that will enable our technology solution to be used in complete service of its goals – or on a solution that can be easily augmented and leveraged down the road.

FUNDAMENTAL TECHNOLOGICAL NEED

To determine how to structure development, we need to decide our answer to the first fork in the road of development: will we develop this application with an out-of-the-box licensed solution, or initiate a ground-up development process? This decision must take place before we can move forward at all, as it is foundational to how any development process would be designed.

First, we will outline existing alternatives currencies, and the properties of their technology solutions.

- *Hudson Valley Current*: The Hudson Valley Current uses Cyclos technology, which allows for a website, mobile app, and pay-by-text. Through browsing their Cyclos website, features include a list of job offerings, marketplace of products/services, user/business directory, and messaging functionality. In each transaction, sellers pay a 1.5

percent built-in fee.⁶ According to Chris Hewitt, around 4 hours is spent per week by their team maintaining their Cyclos technology. In addition, the Hudson Valley Current has two Facebook groups, one open to the public and one specifically for members to engage with each other and the community.⁷

- *Berkshares*: Berkshares currently operates solely as a paper currency. In the past they have contemplated creating a digital currency but decided against it.⁸ Their business directory,⁹ as well as the process of applying to join the business directory,¹⁰ is hosted on their website.
- *Chiemgauer*: The Chiemgauer is distributed in both paper and electronic forms. Each paper note is designed with 14 security features, such as ultra-violet coloring, logo imprinting, watermark, and an individual serial number. To keep notes valid against their demurrage, every 2 months users must buy a stamp at 2% cost. The Chiemgauer uses chip-cards with card-readers in participating stores that allow users to spend from their specifically designated Chiemgauer bank accounts. These bank accounts operate with the built-in Chiemgauer rules including demurrage and transfer fees from/to Euros. This custom technology solution is delivered by Regiogeld e.V, which is a German umbrella organization for regional currencies, of which the Chiemgauer is the most prominent system.¹¹
- *Bristol Pound*: Each Bristol pound is backed by a pound sterling in a trust account in a credit union, and this credit union is also in charge of managing the electronic Bristol pound accounts. The Bristol Pound has a text payment system, and according to their website they conducted a testing phase for this in the months before launch. They contract their technology solution out to Qoin, which uses Cyclos as electronic payment system software and delivers it in a customized package. Bristol pounds are bought using pounds, and can be exchanged using paper, text, or online softwares. While anyone can use the paper currency, you must be registered as a member to trade electronically. If you are a member, and hold paper currency, you can go to certain locations to credit it to your electronic account at no charge. If you have the

⁶ <https://hudsonvalleyone.com/2014/10/06/introducing-our-regional-alternative-currency-the-hudson-valley-current/>

⁷ <https://www.facebook.com/groups/hudsonvalleycurrent/>

⁸ http://berkshares.org/media_coverage/new_england_town

⁹ <http://berkshares.org/business/search>

¹⁰ <http://berkshares.org/node/169>

¹¹ <http://community-currency.info/en/currencies/chiemgauer/>

money electronically, you can convert it into British pounds at no charge.¹² Pay-by-text works by texting the Bristol Pound payment number in the format of “Pay [user’s personal security code] [recipient’s username] [amount to be paid].” Within seconds of processing the payment, confirmation texts are sent to both parties. With text payments, a 2% transaction fee is charged to the receiving party. In order to verify yourself as a user of the Bristol Pound, each member gets a membership card that they can show the business owner as a simple demonstration of identity.¹³

- *Brixton Pound*: The Brixton pound launched in 2009 as a paper currency, and two years later as an electronic pay-by-text, with functionality working similarly to the Bristol pound. To incentivize use of the electronic currency, the Brixton pound offered a 10% bonus when purchasing the digital units of currency until 2013. For unclear reasons, digital and text payment options are no longer offered at all by the Brixton pound.¹⁴ The reasons for discontinuing their digital currency might be relevant to understand in future technology research.
- *M-Pesa*: Safaricom, a Kenya-based cell phone company, launched M-Pesa as an SMS payment system in 2007, which has since expanded to facilitate ATM withdrawals, SIM card top-ups, person-to-person transactions, bill payments, loans, and Western Union transactions. M-Pesa has over 78,000 users worldwide.¹⁵

Second, we will outline options for how we could structure development, starting with the foundational fork between out-of-the-box or new solutions. Throughout, we will share judgments of ‘pros’ and ‘cons,’ as well as an estimated budget when relevant. *Please note: this outline is a quite incomplete sketch, but we feel it is nonetheless important to include as a resource for future development.*

If we go with an out-of-the-box, fully licensed solution... Pros: easy to setup. Cons: augmentability and tailoring to specific needs.¹⁶

- *Cyclos*.¹⁷ Pros: nonprofit, so its free; used by Hudson Valley Current, so pool knowledge; used worldwide, and constantly updated; forum of users communicating;

¹² <https://www.resilience.org/stories/2014-02-21/the-story-of-the-bristol-pound/>

¹³ <http://community-currency.info/en/currencies/bristol-pound/>

¹⁴ <http://brixtonpound.org/what>

¹⁵ <http://community-currency.info/en/currencies/africa/m-pesa/>

¹⁶ <http://community-currency.info/en/category/glossary/software/>

¹⁷ <http://wiki.p2pfoundation.net/Cyclos>
<https://beyondmoney.net/2012/06/12/cyclos-worth-another-look/>

well-documented. Cons: not US based software; high consultation fee; requires internet access; augmentability; too many features.

- *QoinWare*¹⁸

Otherwise, there are some development options for creating a new solution, if we have chosen not to use a licensed solution.

- RESTful API with development in-house. What is RESTful API?
 - *Cyclos*. Pros: nonprofit, so the API is free. Allows for augmentability, while much security and the back-end of the API is handled by Cyclos. Works with existing softwares. Still possible to collab with HVC. Unique identity. Cons: development costs. Not US based software. High consultation fee. Too many features.
 - *QoinWare*?
 - *Other options*?
- Developed entirely in-house. Could have an exciting team, hosted by Free Columbia, really working away. What is the stack we might use?
- Additional possibilities.
 - Hiring outside firm to develop?
 - Partnering with other currencies to build a new application?

We conclude from this research that we cannot yet decide! Once we have decided our OKRs, we will know what performance metrics we will need, which will help us to decide how to structure the project development. Yet even when we know our OKRs, we have not established what features are exactly needed in the applications to fulfill the OKRs (for example: job postings, messaging forums, or a newsletter).

We did go through a process with Pete about envisioning the application features, amongst the team, but without specific input from potential users, and largely led by our own intuition, excitement, and interest. As part of our surveying process, we were not yet focusing on user experience or features, whether user priorities are having fast uptime, notification systems, design, security, etc.

There are many options for what type of development to move forward with, and we need to decide which of these many options to choose (starting with the basic dual options of out-of-the-box or in-house). When we consider the dichotomy between Phase 1 and Phase 2 in the primary section of the proposal, and scope and scale of each, we also gain clarity towards the importance of one OKR in particular: the initial project development costs and time efficiency.

¹⁸ <http://community-currency.info/en/glossary/software/cc2-stub/>

NEXT STEPS: NEEDS AND BUDGET

How do we move forward from here? What are we proposing?

- What: more tech research
 - Deeper understanding of UX design and usability connected to project
 - Create more tech questions, research methodology, larger targets including possibly consumers and businesses
 - Time for interpretation and execution
 - Designer templates and research into wireframe mockups

- Who:
 - Full time tech team positions
 1. Tech market research team
 2. UX designer
 3. Market research manager
 - Advisors to tech team
 1. Tech advisor
 2. Market research advisor (part-time alternative to having a market research manager)
 3. Executive director

- Why:
 - If our priority is launching the application with high standards for initial project development costs and time, then the clearest choice would be to move forward with an out-of-the-box solution. More conversation and analysis would still be needed in this case, with an added understanding that choosing Cyclos has the advantage of being able to share knowledge with the Hudson Valley Current for a smooth rollout.
 - If we want to meet ambitious targets on the metrics for the other OKRs, and want to be certain that we are choosing features that are the most relevant to potential users, then we need much more research before being able to choose, including more field research. We need to gain a deep understanding of what features are top priorities for the potential users of this application.

- How:
 - Need to determine salaries budget
 - Research
 4. \$49383/year per Market Research intern in the Hudson NY area according to Glassdoor

5. \$66124/year for Market research advisor in the Hudson NY area according to Glassdoor
 6. \$79264/year for UX designer in the Hudson NY area according to Glassdoor
- Existing practices
 1. \$1000 stipend for a 2 month internship based on previous FC experience
 2. Advisors currently uncompensated
 - Cost of hosting in Columbia House
 - Gas and transport
 - Research materials and UX design mockup software
 - Human Resources
 1. Pete and Carlos as ongoing tech advisors?
 2. Nathaniel as Executive Director?
 3. Outreach to the Free Columbia network for allies in tech, market research and UX design as potential interns
 - Fundraising for this next phase

2. Legal

On the Legal Structures Supporting Community Currency and its Use:

Considering the issuance, legality, and ongoing integration with current legislative structures, Free Columbia's Social Theory and Action Program research team has compiled the following resources as a support to our current proposal, and place of departure for ongoing research.

ISSUANCE

Mutual Credit

We will be considering issuance in relation to a mutual credit system, sometimes referred to as a LETS system.

With mutual credit, in the narrow sense, the currency units are created at the moment of exchange, not requiring a preceding loan from an issuing authority. In practice, maximum limits are set for each trader, similar to overdraft limits on conventional bank accounts.¹⁹

¹⁹ "Mutual Credit." *C-C.Info* (blog), December 18, 2013. <http://community-currency.info/en/glossary/mutual-credit/>

In a mutual credit system, there is no central issuer of credit or funds (i.e. bank) and debits result in ledger adjustments directly (peer-to-peer) between the buyers accounts (going down) and the sellers account (going up). This can even result in the buyers account going into a negative balance as the system ledger will always balance to zero, and users will begin with a credit limit, or “line of trust.”²⁰

Unit of Account

We then arrive at questions relating to unit of account. Anything can be used as a unit of account for a mutual credit currency, yet most choose a national currency (legal tender) as a basis. In this way they “peg” their currency to an already established value. Using a national currency as the unit of account allows for easy accounting as the currency will effectively follow the same rules of operation related to the parallel currency. For our purposes this would be the US dollar.

Transferability

In the case of all alternative currencies, transferability—the direct exchange of the alternative currency with the national currency—is a fundamental question. For our purposes the mutual credit unit of account would be the US dollar, yet *non-transferable*. There are many pros and cons to transferability, but one consideration is that non-transferability to the US dollar allows for the mutual credit system to be regulated as a barter exchange, and thereby minimally regulated by the NYDFS as a Virtual Currency.²¹

Regulatory Security New York

For full safety in operation as a legitimate mutual credit system, we have observed that in the case of the Hudson Valley Current, an aligned initiative using a similar exchange mechanism, that following the guidelines below provides legal security within the NYDFS regulatory environment.²²

1. Non-transferable to US dollar
2. Limited in geographic scope
3. Nonprofit status

Regulatory Security Federal

According to the Department of the Treasury Financial Crimes Enforcement Network (FinCEN), Real Currency is defined as “currency (also referred to as ‘real’ currency) as ‘the coin and paper money of the United States or of any other country that [i] is designated as legal tender and that [ii] circulates and [iii] is customarily used and

²⁰ Ibid

²¹ “Dfsp200t.Pdf.” Accessed November 13, 2018. <https://www.dfs.ny.gov/legal/regulations/adoptions/dfsp200t.pdf>.

²² “FIN-2013-G001.Pdf.” Accessed November 14, 2018. <https://www.fincen.gov/sites/default/files/shared/FIN-2013-G001.pdf>.

accepted as a medium of exchange in the country of issuance.' while Virtual Currency constitutes 'a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency.' In particular, virtual currency does not have legal tender status in any jurisdiction. This guidance addresses 'convertible' virtual currency. This type of virtual currency either has an equivalent value in real currency, or acts as a substitute for real currency."

In agreement with other community currency administrators such as the Schumacher Center for New Economics and Hudson Valley Current, we determine that a mutual credit system is considered a "non-convertible" currency and therefore a "closed loop" limited in geographic scope "where trade is limited."²³

Taxation

According to both the Schumacher Center and the Hudson Valley Current, any service provided, sales transacted, or value exchanged is liable to reporting in the same way that transactions or payments are for legal tender. This is mirrored in the "Tax Department Policy on Transactions Using Convertible Virtual Currency" stating that:

1. "Convertible virtual currency is virtual currency that has an equivalent value in real currency, or that acts as a substitute for real currency."
2. Virtual currency is a digital representation of value that functions as a medium of exchange.
3. The IRS notice provides that convertible virtual currency is treated as property for US federal tax purposes.

This language points towards the need for further research, or clarification, as to whether or not a mutual credit, in and of itself, would be treated as convertible virtual currency, as it is meant to be used as an account of value exchange, which is liable to taxation as stated:

1. The IRS notice provides that convertible virtual currency is treated as property for US federal tax purposes.
2. If the party that gives convertible virtual currency in trade receives in exchange goods or services that are subject to sales tax, that party owes sales tax based on the market value of the convertible virtual currency at the time of the transaction, converted to US dollars.

Sales and Use Tax

According to the above statements by the IRS, mutual credit systems, along with other convertible or non-convertible systems will still be liable for sales and use tax reporting. This is to be paid in US dollars as per the NY state sales and use tax guidelines. This

²³ "Berkshares - Regulatory Meeting Regarding Crypto Currencies and Local Currencies." <https://www.cuttingedgecapital.com/regulatory-issues-for-local-currency/>

"FinCEN Issues Guidance on Virtual Currencies and Regulatory Responsibilities | FinCEN.Gov." Accessed November 14, 2018. <https://www.fincen.gov/news/news-releases/fincen-issues-guidance-virtual-currencies-and-regulatory-responsibilities>.

means that sales and use tax must be built into any transaction amount where necessary by state law, and included expressly on any invoice to be paid in community currency.

Income Tax

For corporation tax and personal income tax purposes, New York State Tax Law conforms to the federal treatment of convertible virtual currency as detailed in IRS Notice-2014-21. The notice provides that convertible virtual currency is treated as property for U.S. federal tax purposes. General tax principles that apply to property transactions apply to transactions using convertible virtual currency.

Recipients of payment in mutual credit will then receive a 1099-B form, the barter equivalent of the traditional 1099 tax form, and will use this to declare income as they would for any other payment received in US dollars.

Payment of Employees

Examples of payment in mutual credit are available, and in all cases, it is suggested that state and federal minimum wage guidelines are followed in the payment of wage labor. This is true of the Hudson Valley Current, an aligned New York mutual credit currency, which provides 1099-B forms for all their users. In practice, employers make express agreements for employees to receive mutual credit, in this case the Hudson Valley Current, for services rendered.

However, more research is called for on clarifying unclear language as to whether a non-convertible currency constitutes a legal form of payment in the judgement of the state and federal government.

Conclusion

While the information provided is sufficient for a Phase 1 rollout of our proposed community currency, more research needs to be done for efficient, safe scalability. Namely:

1. The proper regulatory languaging around mutual credit as an explicit convertible virtual currency by state and federal regulatory bodies, despite its non-convertability.
2. The legality of payment, up to minimum wage, of wage labor by a non transferable, mutual credit currency.²⁴

²⁴ "Employment Laws." CommunityCurrenciesLaw.org, July 31, 2012. <http://www.communitycurrencieslaw.org/employment-laws/>.

"M14_5c_7i_17s.Pdf." Accessed November 13, 2018. https://www.tax.ny.gov/pdf/memos/multitax/m14_5c_7i_17s.pdf.

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"About Form 1099-B | Internal Revenue Service." Accessed November 13, 2018. <https://www.irs.gov/forms-pubs/about-form-1099-b>.