

ccMixer: A Memoir

OR

How I Learned to Stop Worrying about the RIAA and Love the Unexpected Collaborations of Distributed Creativity During the First Four Years of Running ccMixer

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1 Preface

In late 2004, I started work as an independent contractor for Creative Commons (CC)¹ on a website that would be called *ccMixer.org*. I am the project lead which means developer and site administrator and I am also a musician on the site with the *nomme de Web* fourstones. I have often said that administering the ccMixer site was the first retail job I've ever had and my performance in that specific capacity has been, to be generous, a mixed affair.² Perhaps the appropriate way to put it is a remix of a popular axiom: "Those that can, do, those that can't, teach; those that can do neither, administer."³

The ccMixer project is not a financial enterprise. The goal of the project was to drive adoption of the CC licenses with musicians in the same way they had been embraced in other publishing media such as blogs and photography and to provide a concrete example of the benefits of free wheeling re-use.

Working together with WIRED Magazine, CC made a big splash into the music world in November of 2004.⁴ A CD featuring CC licensed music by Beastie Boys, My Morning Jacket, David Byrne, Chuck D and others was bundled with that month's WIRED magazine and a remix contest, hosted on the new site, ccMixer, was announced.⁵ The site out-lived the contest and continues to allow uploads of CC licensed music. The total impact is incalculable but four years later there are millions of pieces of audio on the Web under CC licenses, so in that sense, the project can be viewed as a raging success.⁶

But I had more on my mind when I got involved in the project.

2 Clearing the Bramble

I assert the interaction between musicians at ccMixer uniquely enables innovation and creativity.

I assert for a typical musician, that model of interaction yields better results than other forms of music creation, on the Web or off.

I assert there is a vast, untapped well of musicians who are hungry for that model and once they find it, are inspired to grow the content pool, which in turn, fuels more innovation and creativity in an upward spiral.

Unfortunately, all things related to music these days are obscured by layer upon layer of social issues. I'll deal with my first postulations in the next section of this document, "Enter ccMixer." First, I will state another set and delve into those in more detail.

I assert remixing and sampling are as legitimate as any art form ever created. Remixing is merely the latest form of artistic *bricolage* in the tradition of satire, fine art's "Appropriation" movement, and theatrical improvisation. Sampling is just the latest step in an evolution toward more efficient artistic production.

I assert that all art, especially music, is derivative and I typically use the Boomers, who lifted an *entire genre* from Black American musicians in the 1950's, as an example. They used every modern means necessary to appropriate and plagiarize and did so with impunity. If they had digital samplers available to them there can be no doubt they would have used them. As it happens, they had phonograph records and guitars so those were the tools they used to reverse engineer the music they loved.

I assert "stealing" is the act of disrespecting an artist's request for credit and money and I claim Rock and Roll musicians are some of the worst offenders of stealing that I have encountered. (It is interesting to postulate that if the original purveyors of 1950's R&B had access to the same legal and financial resources the major records labels use to attack today's young musicians, whether there would be a thing called Rock and Roll *at all*. Certainly The Beatles and Rolling Stones would have been snuffed out

before ever signing a contract. No record company would have dared risk the exposure.)

I do not think the answer is to criminalize today's new musicians in the way that Boomers should have been, using their own standards as a guide.

Instead, I think there should be an environment that embraces the derivative nature of the creative process and at the same time gives exactly the amount of credit and money that a musician requests when someone derives from their work. I think we should be encouraging musicians to participate in this ecology by building the tools that make attribution and royalty payment as efficient as sampling itself has become.

I believe Creative Commons and ccMixter might be two such tools on the road to make that happen.

2.1 On Composing

In the twilight of the 16th century several well-heeled Florentine dandies in their mid-30's used to get together to jam on music and poetry, but they felt highly constrained by the music of the day.

An *oratorio* is Italian for "guy with lots of ruffles and floppy purple hat plants his feet and belts out a tune" but also applies to a group of drab, superstitious cultish types in moldy brown frocks harmonizing on unintelligible liturgies. The instrumental performances of the time were done on a variety of highly crafted, arcane instruments that represented the height of technology, but after 200 years of what historians now call the Renaissance, these men were ready for change.

Seeing themselves as serious students of the arts, silk merchant, amateur poet and patron Jacopo Corsi, hyper-extrovert performer Jacopo Peri and poet Ottavio Rinuccini decided to use an amalgamation of the day's performance styles to recall the ancient Greek tradition of solo, musical recitals. In 1597, Corsi and his band of literati dilettantes chose the festivities of the Bacchanalian carnival at (where else) the Palazzo Corsi to perform a piece they concocted called *Dafne* which featured solo vocal performances of a libretto backed by a small group of musicians in a theatrical setting.

This was the first time music historians can find where a costumed solo singer (Peri loved to play dress up) and the musicians backing him up were actually paying attention to each other which, as any casuals lounge singer in front of the house band will tell you, is a moment always worth noting. Meanwhile, *Dafne* is generally accepted as the birth of the art form we call *opera*.

It so happens 1597 is also the first time⁷ we use the term *composer* for a musician who tells other musicians what to play.

That this word is re-applied from a general definition to one specialized for musicians at the exact moment *Dafne* made its debut may be coincidence, but it would explain a lot if it wasn't.⁸ It would help us understand why a word that means "one who puts things together" was used instead of words derived from other roots, such as creator, inventor or even author. Here was a public performance that was *composed* of elements from the theatrics of French ballet, Italian oratorio, late-Renaissance madrigal music and a story from Greek mythology performed in the style of Grecian melodic story recital.⁹

This is not to say the Florentine group was anything less than creative. Just the opposite. When we say the word *creative* we reserve it for precisely this kind of activity. When we say creative we mean combining familiar elements in previously unfamiliar ways. To combine familiar elements in familiar ways is what we commonly call *craft*.¹⁰

2.2 On Copying

At the core of every computer is a very powerful microprocessor, the most popular ones made by Intel. Each chip has an instruction set that allows programmers to tell it what to do. You may be surprised to learn how “dumb” these chips really are. Almost all the instructions they can handle fall into one of two types of actions: math and moving bytes of information around. Of course, the bytes in question aren't really “moved” like when you pack some boxes and borrow a van. When a chip is instructed to “move a byte from here to there” it will make a *copy* of what's here and put the *copy* over there.

When we're talking about a piece of digitized media, there is Constitutional law that regulates each and every time the chip is performing this action. From disk to memory to audio interface to speaker - copy, copy, copy. It is difficult to estimate but a back-of-the-napkin calculation shows that in a typical remix authoring session that might last two hours in Ableton Live a single sample will get “copied” between 100,000 and a 1,000,000 times.

Never mind transferring the bits of information from one machine to another. Never mind except that the authorship of music depends on it. Similar to other things a modern musician takes for granted, like breathing and potable water, the freedom to copy is a precursor to making music.

It might have made sense to regulate on a per copy basis when the only people who would build a record pressing plant were either legitimate or bootleggers. Applying the same legal standard in today's world amounts to “pandering to pipe dreams of centrally controlling and taxing every act of copying.”¹¹ It just seems all so painfully out of touch when you consider that within 10 years, all the music ever recorded by humans will fit onto your phone.¹²

I'm not here to make the case for or against all copyrights, patents and trademarks. It so happens I would prefer to live in a world where the rights of the individual are balanced against the greater public good. For our purposes, it is enough to note the damage to free expression, in the midst of the creative process, that is inflicted by fallout of the war over copying.

2.3 On The Creative Process

Let it be said, here and now that most musicians do not have a clue about the mechanics of their own creative process. If you ask a musician they will mention things like arranging the Post-its on their computer monitor, burning incense, turning the threshold setting on the L2 compressor to -0.03db while facing south, lucky underwear and of course, the temperamental muse. Kristin Hersh calls her creative process less “songwriting” and more “well rehearsed Tourette's.”¹³

The definition I use for the creative process was formed largely during my experiences in the (now defunct) Dick Grove Music Conservatory which saw itself as the Hollywood version of the Berklee School of Music. In the final term of a three and a half year program there was a 45 week stretch in which Tuesday was “play day.” Every Tuesday morning each student was responsible for an original composition to be played by an orchestra ranging in size from 40 to 80 pieces. The assignments were revealed on Thursday afternoon. Monday nights were devoted to copying out all the parts by hand. That left four nights to compose and arrange the entire piece. The pressure was intense: more than two missed assignments (no chart for the orchestra to play on Tuesday) meant immediate expulsion from the program. This structure was designed to emulate the pressures of professional conditions in Hollywood as practiced by the teachers at the school, many of whom were highly successful veterans of the profession (e.g. Lalo Schifrin, Bill Conti, Henry Mancini).

Those of us who went through the composing and arranging program at Grove could not afford the luxury of sleep, leave alone superstitions about incense and focused instead on the relatively predictable moments of a-ha inspiration generated by reams of mutative repetition over well established techniques and previous works.

Those a-ha moments and the engines of discipline that fuel them¹⁴ are universal facets of the creative

process. I do not claim to have *the* definition, but I have not found a single case of artistic creation that does not fit this model – regardless of musical genre, culture, tools, felony convictions or pimple count. Brian Eno, Beethoven and Bimbo Jones all made music using the same fundamental tools of creativity.

Big thinkers Peter Norvig and Malcolm Gladwell can't decide if it takes ten years or 10,000 hours to get good at something,¹⁵ Either way, it's a long, hard road filled with what Norvig calls “deliberative practice.” By way of illustration, let's take the case of two hypothetical musicians.

If a guitarist hears the recording of a complex guitar performance, he can recreate it on the spot after one listen, while his friends marvel at how he could effortlessly match the original note for note, inflection for inflection.

If a mash-up artist hears the same guitar performance, she can match it with a completely different record (or in the case of Girl Talk, 26 other records¹⁶) that somehow, seamlessly overlays the original as if the two recordings were meant for each other. Her friends marvel at how she seemed to instinctively know the two recordings would “just work” together.

Of course, neither of these performances are effortless or instinctive. Both are the result of thousands of hours of perfecting a technique *based on works that came before them*. For the guitar player that means replaying the smallest fraction of a recorded guitar part thousands of times until he can mimic the techniques *exactly* as recorded by another musician. After a few years of doing this he can recognize any combination of the Western scale. When he hears a recording for the first time, it's just a variation of music he's heard many thousands of times. In school we used to call this “eight bars of anything” as in: “Play me eight bars of anything and I'll reproduce it.”

Meanwhile, the mash-up artist will have spent thousands of hours cataloging sound snippets according to tempo and key and just as much time in front of audio tools to isolate parts in records that make them compatible with other recordings. After years of piecing disparate parts together she has taught herself to recognize patterns in both harmony and melody even if she isn't using the same naming conventions taught at a music conservatory. When pieces are close but need tweaking, she can “picture the sound” with specific audio tools applied.

In the end, *making music is an internal, mental process*. Our guitarist and mash-up artist are both schooling their brains. If the guitarist also happens to be training his fingers to pirouette across a fretboard that's fine, but in both cases they have a mental point of reference for *any* music they hear. This *ear training*, as it is called in music schools, is the “craft” part.

Somewhere along the way, the more adventurous musicians will start injecting small variations into the repetition. This mutation, however slight at first, is where she starts to merge all of her artistic influences, personal traumas and other inspirations. Finally, at a given point of maturation there is more merging and mutation than mimicking and mental cataloging. This last phase is where we can say the musician has traversed from craftsman to creative artist.

But what do we say about how he or she got there? Did the guitar player 'steal' the licks from the records? Certainly the mash-up artist, no?

2.4 On Stealing

How fitting it is that Igor Stravinsky's famous quote: “Good composers borrow. Great composers steal” seems to have been shamelessly lifted from T.S. Elliot who said “Immature poets imitate; mature poets steal.” I think they were both quipping but I don't think either was kidding. One valid interpretation of this could be the paraphrase “good composers expose their roots, great composers cover their tracks.” Critically, any form of the statement takes for granted an artist doesn't even rise to “good” until she has duly appropriated from what came before. We'll come back to this idea of “covering your tracks” and what happens when a generation of kids discovers the fun and power of leaving the tracks uncovered.

In the previous section I outlined several phases in the development of an artist. Focusing on the last phase as the creative phase makes sense, especially when correlated with degrees of uniqueness in the combination of elements. Claiming this last, creative phase is possible without the first, derivative phase is to deny the fundamental laws of nature. To say "all art is stealing" is imprecise and provocative, but happens to be true. Just ask Stravinsky.

It might be argued that without a sufficient degree of uniqueness in the final phase of the creative process, all that remains is the derivative (stealing) phase, therefore invalidating the result on an artistic level. Who is to judge that degree of uniqueness? Many of us come up short on the discipline, luck and intelligence required all along the creative process, but we still trundle along because, well, it feels good. (Also, irrespective of artistic merit, musicians get more action. It's true.)

Anybody paying attention can cite one example of an artist who got as far as the first phase and made a career out of that. It's one thing to *wish* to see certain artists in prison for producing the work they do - plenty of us have those feelings on a regular basis - it's quite another to actually prosecute an artist because, in the course of making their art, they didn't live up to somebody's standard of excellence. Open culture advocates are pointing out that we have come to a point in our society where we *criminalize* the artists that don't meet somebody's standards - didn't "cover their tracks" with enough skill - in the last phase of the creative process

Just for the record: *borrowing* (and its hifalutin cousin *appropriating*) is the polite way we describe the deriving phase of the artistic process. It is reserved for artists we like or have been paid to write about in a favorable way. If we don't like the artist and our livelihood doesn't depend on pretending we do, then we revert to calling it "stealing."

2.5 On Sampling

The derivative phase of making music is so vital because the music being derived from has a proven track record of pushing the emotional buttons in listeners and is now being implanted deep into the neural pathways of the neophyte musician. He is learning the language of what works and what doesn't work in the form of acoustical disturbances in the air - specifically licks, riffs, intervals, chords, rhythmic patterns, harmonics, wave shapes, etc.

For thousands of years the most reliable way to implant these lessons was to arduously, laboriously memorize patterns with fingers and limbs. The flaw in this method is that the mental processing is constantly waiting for the kinesthetics to catch up. The "ear" can hear the part, long before the fingers perfect it.

Sampling is the ultimate tool for this learning phase. It is über-deriving, Barely Legal Appropriation Gone Wild, a method for heightening composers' greatness that would have left Stravinsky swooning with envy. Of all the gadgets, gizmos, toys and contraptions that musicians have invented to incrementally improve the effectiveness of the learning phase, nothing compares to the leap that sampling technology represents, especially the click-and-drag variety in the digital realm. As I write this there are a billion babies who can't pronounce "sample" or spell RIAA, but have mastered a mouse, and that's the last "instrument" they are ever going to learn. The accelerated learning enabled by sampling will leave everybody born before last year with their heads exploding. If we don't get in the way, there's a tidal wave of the most unimaginably creative force bound for our shores in about 20 years.

Of course, the refuge of many detractors of sampling are all the weak, uninspired pieces of music that happen to use samples. The canonical retort is to point out that bad writing is hardly a reason to dismiss the art of writing.

The most vociferous complainers are often musicians who have spent a lifetime learning traditional instruments. They have logged thousands of hours mastering the techniques of the greats that came before them and are now, understandably, threatened when a young musician can get the same effect, as they see it, on the cheap. It is easy to write off these fears as generational but I have seen the affect on many talented, young musicians who end up believing they are somehow second-tier artists simply

because their elders don't understand the tools they use. The “its not music” meme is discussed further below.

The most important misconception surrounding music production at the beginning of the 21st century is that sampling is a tool used primarily in remixes. While it's true that classic remixes and mash-ups use sampling extensively, it is also true that vast numbers of music projects, totally unrelated to “remixing,” use samples. For contemporary musicians, a fully acoustical recording or a performance without the use of any samples whatsoever is a reactionary statement on it's way to being a novelty. This sense that sampling is a tool of the future, if not the present, serves as an underpinning to the culture at ccMixer.

Meanwhile, musicians of any consequence, the ones we remember, rarely think twice about using the most advanced technology available to them. Has sampling had an effect on the way we listen to music? Of course, thank heaven. Just like tuning pegs, the microphone, electric guitar and analog synthesizer. And all those technical advancements had their whining detractors, too.

2.6 On Remixing

2.6.1 Cultural References

Lessig's definition of *remix* is “appropriation” plus “manipulation.”¹⁷ That doesn't explain how a TV show about home redecoration gets to be called “Design Remix,” but that's a subject for another treatise.

The form of remixing Lessig is talking about, referring to our Stravinsky paraphrase, is the opposite of covering your tracks, it is a celebration of exposing the tracks. Dangling well known cultural references is the point of that brand of remixing. We have no legal wiggle room at ccMixer so we don't have a lot of that type of remixing – save the rare occasion when Lessig and Stephen Colbert share copyright on a TV interview segment.¹⁸

The most crippling side-effect of the restriction to legal samples has been CC's inability to penetrate Hip-Hop in any serious way. The problem is reconciling Hip-Hop's dependence on access to cultural references with CC's non-wavering adherence to the law. Short of massive legal reform, the only alternative is to wait for CC licensed content to become part of a new generation of cultural references. Hopefully, that doesn't sound too far-fetched considering those of us in the open music movement assume that kind of event is inevitable. Brad Sucks needs a Grammy, how hard is that?

Far more likely, in the short term, is the death of the notion that sampling for remixing, by definition, is an illegal act. From the start, many in the remix realm worried “the relevance of [ccMixer] to the larger culture of music remixing is questionable.”¹⁹ In discussions with San Francisco Bay Area DJs shortly after ccMixer began operations, it was found that

...working or hobbyist DJs choose music without giving any thought to the legality of their usage. This largely springs, they suggested, from the fact that until the very recent and limited emergence of CC-style licenses, basically no sampling was 'legal', and so this never became a point of choice. Appropriation and reuse of existing materials was how they created art, and as there was no clearly legal way to do that, and enforcement was extremely limited, legality was presumed **not to matter**. While the DJs we interviewed were sympathetic to the goals of ccMixer, they did not think that it was a project which was likely to succeed.²⁰

For cases where cultural references do not define genre, it comes down to a question of momentum. The feelings these DJs expressed reflect a moment in time. As more credible, true remix artists emerge from the ccMixer project and as CC cleared samples gain acceptance in commercial music licensing venues, their pessimistic analysis will only be true until it isn't anymore.

Cultural references being essentially off the table and for reasons I detail below, at ccMixer and in this document, we use a broader definition of remix. First, allow me another historical diversion.

2.6.2 *Defending the Art Form*

Sitting cross-legged in the tall weeds of the Serengeti, out of sight of their prey, exactly 15,493 years ago, two young hunters, Ga and K were busy whittling out the inside of their long reeds. They planned to use these hollowed reeds as blow darts to bring down the elusive three legged desert fowl they could already taste. Ga's reed had a small deformity, a perforation to be precise, so when he blew into it to test the air flow it made a small whistling sound that startled both of them. K was visibly annoyed at the interruption but Ga was intrigued so he blew again. On the second blow he could feel the vibrations coming from the perforation. He blew yet again, this time covering the hole with his index finger and to his amazement the whistle was still there but it was a different sound with a lower vibration. Ga was downright ebullient as he blew again and again, covering and uncovering the hole, controlling the reed's whistling.

Finally taking a break he turned to K and said "You know, this sounds like the birds of the bent-branch trees! I think I will use it at the next Festival of the Rock."

The Festival was a celebration in which one of the family would be sacrificed to the gods on a flame and his flesh would be distributed through the tribe as a hearty, delicious tribute. There was always music at the festival, performed in the way it has always been performed: by the pounding of the chest and caterwauling of the elders.

With Ga's proclamation, K suddenly realized who should be sacrificed at the next Festival. The significance of this event is that it is the first time that one human being turned to another and uttered the words that K now did: "That's not music!"

K went on to explain that using a device, like a reed, was artificially manufacturing what the gods intended for the human body to do. Pounding chest? Fine. Wailing through your throat? Acceptable. Blowing through a mechanical contraption that was designed for stopping a three legged desert turkey in its tracks? Heresy.

When Tina Fey dresses up as Sarah Palin and gives a mock interview in which the questions and answers are *verbatim* quotes from Palin, the world (rightfully) falls over themselves to praise Fey as a genius. Isn't the point of satire to appropriate something in a new context? Society (and the U. S. Constitution) gives satire a pass but there's just something about music remixing that sets people's hair on fire.

Even if you give cultural referenced remixing a pass on fair-use grounds, the point I've been making from the start is that *all* art, whether you cover your tracks or not, starts with appropriation. That leads me to the admittedly snarky observation that if you recognize the thing the artist stole it's a *remix*, if you don't, it's a *composition*. From an artistic perspective we are talking about materials, techniques and tools. We might as well be sitting in the tall weeds of the Serengeti talking about converting blow-darts reeds into flutes. It's still art.

If there is any difference between the mental processes used by a virtuoso composer writing a piece for a large orchestra, a disciplined and talented songwriter sitting on the edge of her bed with a guitar and a gifted remix artist using vinyl and an MPC sampler, I can't find it. And I've looked. Hard.

2.6.3 *What it Means to be a "Remix Site"*

So, remixing is just a genre that happens when your primary technique is sampling, exactly the same way that Rock and Roll was the first genre borne of electric guitars. Both a genre and the tools that

define it grow and evolve. Even a cursory perusal of ccMixer demonstrates that sampling is used in infinitely more genres than just remixing.

How to convey these concepts in the user interface and marketing of the ccMixer project is another story. I had come to accept, even before the site was launched, that the misconceptions about music production ran so deep, in so many different directions, that I would ignore them all and simply use the term “remix” for the “music that incorporates samples” and “remixer” for a “musician that incorporates samples into their music.” I use the same definition in this document.

Ironically, for the launch of the site in the fall of 2004, the word “remix” never actually appeared on the site. Some involved in the WIRED contest were concerned that contestants would be confused by the term “remix contest” and only submit rave-disco worthy tracks. This, despite the fact that sites like ACID Planet had been having remix contests (and calling them so) for over five years without any sign of an over abundance of dance oriented submissions. Piling on the irony, it was decided to use the terms “cut-up” and “mash-up” instead of remix. Never mind that these refer to technique based sub-genres of remixing that are much more specific than the term remix has ever been, and it was guaranteed that few submissions would fall anywhere near either an actual cut-up or mash-up. In the end it seems the participants in the contest were just intelligent enough (thank you very much) to figure out what the event really was: a remix contest. A few weeks after the close of the WIRED contest, in the spring of 2005, I replaced all other euphemisms on the site with simply: remix.

Marketing gyrations notwithstanding, ccMixer is and always has been known as a “remix site.” In some idealized world it would have been great for everybody to understand that we actually meant to demonstrate something about the nature of music production in general. But I have done little to dissuade people of the idea that ccMixer is a remix site and that policy has certainly made my life simpler.²¹ But those of us who know the site intimately understand that it is aggrandizing neither remixing nor the project to say that we are a tool for all types of music production in the modern sense. While there are many pure remixers on the site working exclusively with samples in the tradition of DJ Shadow and DJ Food, there are at least as many musicians who are just creating music productions that happen to employ samples. To make the point as clear as I can: many of the samples and a cappellas on the site were created with the intention of uploading them to ccMixer for use by the remixers on the site. Later, a remixer might upload a fully arranged and produced version of that a cappella. What does it mean to have a remix of something that never had an original production?

2.7 On “User Generated Content”

I've been to several conferences recently where it was suggested that the Internet's natural tendency for democratizing the creation of art is the antidote to corporate media giants that have ruled the creation and dissemination of media for the last half century. The term “user generated content” was used a lot and people wondered if ccMixer fell into that category. Many just assumed so.

Lessig's *REMIX* raises alarms about what's it like to be a kid who has something to say and wants to use the latest, coolest tools. He highlights the perilous consequences of making that kid into a criminal every time she powers on her computer. I don't know if there's a difference, but ccMixer is about embracing the creative process and immunizing it from limiting forces, both social and legal. Assuming there is a difference, I suspect if you fix one you fix them both.

Exposing my bias, I will say that ccMixer is on the vanguard of *something*, but exactly how it relates to TIME magazine naming “You” the Person of the Year is left as an exercise for the reader.

2.8 On Collaboration

Many music collaboration sites have sprung up in the last few years, including several that incorporate Creative Commons licenses. Most employ the virtual version of the met-at-a-bar-jammed-in-the-garage model of musicians getting together. Typically a songwriter will proffer an a cappella and post a request

for collaborators with specific requests such as “this track needs a bass part” or “help me punch up the chorus.” Willing musicians will sign up to collaborate and the group will exchange files in a project-based user model.

To be completely subjective and provocative I will say that the vast majority of these musical projects leave much to be desired. While the social aspects are very reassuring for many musicians, this way of working online exposes some fundamental flaws:

1. Most successful collaborations are the result of musicians who have been playing together for many, many years, learning each others' musical vocabulary, making micro-corrections to their own playing in real-time. Other successful collaborations are based on a common expertise between the musicians such as a deep knowledge and virtuosity within the confines of a well-understood, specific genre. Finally, there is a class of musicians who are trained in the art of accompaniment. They are specialists who make split second, spontaneous, reflexive decisions based on vigorous training; they can follow a singer deep into the weeds. Otherwise, face-to-face collaboration is wholly over-rated. We think it works so well because when it works it is a magical experience for everybody involved. However, for every inspired collaboration there are literally millions that never leave the garage (and don't, thankfully.)
2. Explicit collaboration on the Web shines a glaring spotlight on any weakness existing between first-time collaborators. Most collaborations are painful, artistic disasters and taking those out of the garage and exposing them on the Web only makes the case. All of the mis-steps that are part of the natural process of an evolving collaboration, that would normally be hidden away in private, are exposed for everybody to see. It's the equivalent of putting a 24 hour web-cam into a sausage factory's R&D lab.
3. Finishing a collaboration is a serious, disciplined chore. Most of the ones in real life (and therefore on the Web) are interrupted by real life commitments and therefore never reach a satisfying level of completion.
4. Collaborators regularly *settle* for parts (backing tracks as well as vocals) because of time and closure pressures mentioned above but also because of social issues. How many times can you iterate with a bass player who is cheerfully volunteering his time and energy but who is, alas, continually giving you lousy bass parts? The vast majority of musicians I know are way too nice to be Simon Cowell about it and say, "Sorry, thanks for the effort but you suck."

Roughly two years after the ccMixer project got under way, several community members put pressure on me to enable these types of explicit collaborations. I took a survey of features at sites that specialized in such things and within a few weeks turned on the “Collaboration” feature at ccMixer. Not surprisingly, the feature suffered from all the ailments I outline above. Additionally, its presence caused confusion on the site about how to engage other musicians. A year and a half after I had enabled the feature, the vast majority of collaboration projects were started by newcomers who did not understand the sample pool model of collaborating, which is primary to the site. (There was also a fair amount of abuse of the feature: by the end, more spam type projects were being created than legitimate ones.)

Taking luxuriant advantage of being a purist, non-profit site, I finally removed the feature. With only about 20 completed collaboration projects (compared to over 7,500 remixes) it seemed reasonable. Some consternation arose about the method I used to discontinue the feature (I gave a few weeks notice on the site's forum) but no other hue nor cry ensued. A commercial entity or one solely interested in pumping up the membership numbers may have addressed any newcomer confusion head on. They may have accepted a hit on the overall quality of music on the site in the name of offering a model of sharing that musicians already understand.

The idea behind ccMixer is to fight through the bramble and get to a better way to serve musicians. The model at ccMixer may have been obvious sooner to more people (including myself) if the exchange of music was not encumbered by an overwhelming imbalance toward “All Rights Reserved.” In a marketplace where every note is packaged with a price tag, creativity is locked away in that packaging and therefore unavailable.²² Thanks to the vision of Lucas Gonze, Neeru Pahria, Mike Linksvayer and the support of Creative Commons, we can now see an environment where creativity flows unencumbered as the currency of exchange between musicians.

3 Enter ccMixer

[Creative Commons licenses] represent a visible example of a type of creativity, of innovation, which has been around for a very long time, but which has reached new salience on the Internet – distributed creativity based around a shared commons of material.
James Boyle, *The Public Domain: Enclosing the Commons of the Mind*

On the surface, ccMixer is a music site that accepts three kinds of submissions: samples, a cappellas and the remixes that incorporate them. When a remixer is uploading, he is presented with a simple interface that helps him identify which samples, a cappellas or other remixes he sampled. This allows all three types of submissions to link to each other, signifying the specific relationships between them. Simplistic as the idea seems at first glance, the freedoms flowing throughout this linking relationship has sparked an exciting set of developments.

The most rewarding aspect of the last four years has been witnessing how many musicians relate to what is going on at ccMixer, especially those that had no previous connection to the open music movement. In a music industry that pits musicians against each other in a frenzy of demagoguery, here is a place of gifts exchanged in a spirit of cooperation and kinship. It is obvious that many musicians long for the values of the sharing economy, even when looking for rewards from the commercial economy. For all the lecturing, vilification and criminalization they've had to endure, maybe it is this generation that could teach the previous one about how to avoid the need for "reparations" later on.²³

Philosophically, the ccMixer project is part of what Lewis Hyde calls the "gift economy,"²⁴ Lawrence Lessig references as the "sharing economy"²⁵ and related to what John Buckman calls the "Open Music" movement.²⁶ "In a free market," Hyde explains, "the people are free, the ideas are locked away."²⁷ Liberated from the commercial marketplace, ccMixer leverages the Internet to its fullest by demonstrating "distributed creativity based around a shared commons of material." As these authors would have predicted, but took many of us by surprise when it actually worked, ccMixer has become an engine for creative innovation.

3.1 The Sample Pool

We are lightened when our gifts arise from pools we cannot fathom.
Lewis Hyde *The Gift*

Traditionally, musicians can interact through an *implicit collaboration* in which a musician's only contact with another is through a score, sheet music or audio recording. Digital recording techniques have been a revolution for implicit collaborations. There are countless terabytes of commercially available sample in libraries and embedded in electronic instruments. All of those packagings have their own custom formulated licenses creating individual islands of copyrighted material. Unlike the recording industry, sample library vendors are much less eager to sue musicians who violate the terms of these licenses. Dangers are still there, however, and at least one popular audio tool vendor was shaken to the point of declaring they will "remove all melodic loops" from their offerings.²⁸

CC licensed samples offer a way out, but it was important that ccMixer would not be seen as *the* host for CC samples. Instead, it was our hope to set an example for commercial and amateur sample providers. So, we decided to use the phrase "CC Sample Pool" to refer to the world wide collection of music available for sharing and remixing and position ccMixer as just another player contributing to the Pool. (If you are familiar with CC licenses then you can think of the Pool as the subset of the Commons that includes all audio samples licensed without the NoDerivs clause.) The Pool, we tell musicians, is a safe harbor since, by definition, all the samples are provided under a well understood, liberal licensing scheme.

Other sites, such as the freesound project²⁹ from the University of Barcelona, have since sprung up providing sound designers a CC platform to share their work.

In order to further promote the idea that ccMixer was just a small part of a larger ecology, we published a developers' interface³⁰ to allow disparate Sample Pool sites to communicate with each to share their catalogs of samples. ccMixer currently uses this API to give remixers an easy way to attribute samples they have used from other websites such as freesound and Magnatune.com.

3.1.1 Innovation Fodder and the Unexpected Collaboration

Providing a legal safe harbor is only the first implication of an ever growing Pool. Over the course of the project, it became clear the Pool was indicating a special breed of creativity.

When musicians work alone they are limited by their own technical skills or sample libraries they have purchased. When contracting musicians for a recording session, the project is limited by budget constraints and the skills of the hired musicians. When collaborating with friends or band mates, the results are limited by the collective skills of the band, typically three to five people.

Compare those limitations to a pool in which millions of samples are available for sharing and sampling. An unlimited number of genres, styles and playing techniques. Instead of placing an advertisement in craigslist for a bass player, musicians can now search the Sample Pool for a huge variety of bass samples. No more worrying about being restricted by the skills of your collaborators, no more waiting for someone else to finish their parts and, best of all, no more hurt feelings when you are not satisfied with a part submission.

By removing restrictions of skill sets, time pressure and personality, the CC Sample Pool has enabled the most exciting development on ccMixer: the *unexpected collaboration*. Consistently, a musician or singer would upload a sample or a cappella with their own frame of reference and inspiration. Some period of time would pass, sometimes a year or more, and a remixer would pluck the sample or 'pell from the site and use it in a completely unexpected context, sometimes (and this is the exhilarating part) surprising the remixer.

In the earlier discussion of *Dafne* we noted that a work of art is considered creative when familiar elements are combined in an unfamiliar and therefore unanticipated context. The CC Sample Pool has turned out to be factory for just this kind of re-combination because when browsing the Sample Pool with an open mind, the remixer is bound to be inspired in ways previously unconsidered. The remixer may have his personal history and training to reference, the Pool has no such limitations.

I could relate to this idea when ccMixer founders Neeru Pahlia and Lucas Gonze talked me through this four years ago, but watching it happen as a matter of course has been a revelation.

The inspiration does not stop at the remixer. Lessig relays the story of SilviaO,³¹ a singer who uploaded a Spanish a cappella that I remixed. I am not fluent in either Spanish or the Latin rhythms she was imagining when singing the song. When I heard the a cappella, I was inspired by the potential for a lilting, funky jazz accompaniment and I proceeded to mangle the vocal part into nonsensical Spanish on my way to my arrangement. She later remarked to Lessig that she realized she was “just a little part of the huge process that was going on now with this kind of creation.”

3.1.2 Sample Pools and the Giggling Producer

A working producer makes a living by giving the customer what they want. They are hardly in a position to deliver music that is not in the genre or style of the assignment because they were artistically inspired by a found sample. For jingles, film or television, there may already be a melody in place so finding samples that meet even the most basic requirements of tempo, style and harmonization can be tiresome even for someone trained in the art of matching samples. At some point it just makes more

sense to take out the damn guitar and play the part yourself or take out the checkbook and hire somebody.

It could just be that this is an issue of marketplace timing because the problem is diminished at a commensurate rate to the growth of the Sample Pool. In other words, the bigger the Pool, the less this is an issue. As the Pool approaches an “anarchist stability,”³² finding samples that are “close enough” is not the problem, instead choosing from the multitude is the time consuming piece. Assuming one of these “close enough” samples is found, musicians can use modern software audio tools to transparently change its tempo and re-pitch the entire sample or, in the case of monophonic melody lines, alter one note at a time. There are even tools coming to the market that will allow producers to re-pitch individual notes in polyphonic samples using technology called “direct note access.”³³ Until recently this type of modification was thought to be literally impossible given the physics of acoustics. This technology promises that a recording of a chord progression, whether strummed out on guitar, plucked on a piano or bowed by a violin section, can be re-purposed to any song or melody. Not a small thing.

3.2 Attribution Tree

In late 2008, I was preparing to speak at a conference in front of an audience that featured free software advocates. This group tends to be to the left of Creative Commons favoring the more freedom oriented licenses used by projects like GNU/Linux and Apache. In the event that CC might need some defending, I turned to the ccMixter community forums to ask a question, the premise of which postulated a scenario in which a musician would turn a sample over to the Public Domain, not expecting any money or credit in return. This was the *premise*, mind you, not even the real question. The thread was immediately derailed and got stuck, repeatedly, on the idea of passing a creation into the PD.

I was reminded, as I had been so many times in the course of my activism for CC, that musicians are a traumatized lot. Understandable after 100 years of taking a beating by your own industry that holds out, as its highest attainable goal, a Faustian “loan sharking”³⁴ lottery (A.K.A. record deal) that if, heaven forbid, you actually win, gives you the chance to relinquish all rights to your music for life with the privilege of paying for every expense along the way.

The idea that a musician would voluntarily give away attribution was very, very confusing to many participating in that forum thread. Don't forget we are talking about musicians who had each put hours of music into the Commons, hardly neophytes to the sharing economy. But mess with attribution and a line had been crossed. As it was later pointed out to me (at the lefty-Commie conference, no less) this attitude is not unlike academic publishing where credit is *currency*.

Lucky for me, ccMixter has the most thorough attribution scheme we could conjure. If it didn't, I'd be furiously coding it instead of writing this document or risk being hung by my thumbs by the ccMixter community. Every remix listing on the site includes a section that points to its sources.

Here's the attribution section for a song called “Coast2Coast (We Move mix)” by an artist named duckett:

Uses samples from:

[Coast to Coast](#) by [J.Lang](#)

[Mellow Dm 5ths](#) by [Caleb Charles](#)

[1165_walkerbelm](#) by [dplante](#)

The first listing shows that duckett used an a cappella uploaded by J. Lang called “Coast to Coast.” If we click on that the song title we are taken to the details page for the a cappella. There we can see all the places where the a cappella has been sampled:

Samples are used in:

[coast to coast-D...](#) by [deutscheuns](#)

[Coast to coast \(...\)](#) by [alberto](#)

[Coast 2 Coast \(j...](#) by [ASHWAN](#)

[Coast 2 Coast \(A... by Dex Aquaire...](#)
[My Name is Geoff by fourstones](#)
[Reminisce Coast by teru](#)
[Coast To Coast by ThomasJT](#)
[One Night Stand ... by CptCrunch](#)
[c2c2c by fourstones](#)
[Let Me Know by KatazTrophee](#)
[coast to coast by kristian v...](#)
[Coast2Coast \(We Move Mix\) by duckett](#)

We can see duckett's remix here at the bottom.

Through the use of the Sample Pool API and a blog-style traceback system we extended these links beyond ccMixer and point to other members of the Sample Pool, videos on hosting sites like YouTube and Flickr, podcasts and any other reference to the music.

It became clear that many ccMixer musicians consider the people they sample as benefactors and attribution as a reciprocal currency. As I learned from my experience while preparing for the conference, the justice implied in properly crediting your benefactors is a reactionary passion amongst ccMixer musicians. But, I claim the attribution tree demonstrates something even more powerful.

Exposing a piece of music's roots takes the shine off the *ex nihilo* mythology that fosters an image of the musician working alone in his head to create his masterpiece without the assistance of mere mortals. This image is what corporate marketing revels in and how many musicians, fueled by a bubble of sycophancy, see themselves. The ccMixer attribution scheme is a statement about how art really works, everybody building on each other.

The attribution tree is what I mean when I say we've turned the artistic process inside out - instead of hiding our tracks in the hopes of being considered "great" individual composers, we make attribution the focus of the enterprise and build reputation on who is sampling and who has been sampled the most. Derivation and re-use is the generous, creative spirit incarnate. The attribution tree is the accounting book of a gift economy.

3.2.1 Mixversation

Lucas Gonze is one of the founders of ccMixer and the programmer whose code I took over when I joined the project a few months before the site went live. Even before the first remix was uploaded he had coined the word *mixversation* for what was about to happen on the site. The invention of that term was meant to indicate there was a new tool for expressing creativity.

Half a year after I uploaded my remix of SilviaO, the instrumental part was sampled in a hip-hop remix by Unconscious Inc. called "Luxury (inc'd)." Silvia, Unconscious and I were having the ultimate unexpected collaboration, a mixversation.

By sharing a remix, community members leave the musical version of a bread crumb trail for others to re-remix, forming a recursive conversation using remixing as the means of interaction.

For typical social networking sites, the goal is to amass as many "friends" as possible, pointing to each others' profile pages and exchanging status messages. At ccMixer we don't have rooms to chat in, walls to write on, status messages, "who's online," blogging, geo-tagging or any other Web 2.0 social feature. Instead the community is pointing to each other via the music itself. The attribution tree is illuminating the way musicians have always used each others' creative output to foment a network of relationships.

3.3 A Cappellas

If we ever get around to making ccMixer T-shirts, they will read: "Came for the a cappellas, stayed for the sharing economy."

Nothing attracts talented musicians like the chance to work with a strong vocalist. And nothing attracts good singers like the chance to work with an inspired producer. This mutual attraction is true for traditional recording sessions as well as in remixing communities. When the Creative Commons staff showed me a prototype of ccMixer, my first suggestion was to add a section specifically for a cappellas. I felt very strongly that in order to bring legitimacy to CC in the music world they would have to substantially increase the quality of the CC music and a good crop of a cappellas was the key to make that happen.

I started remixing 10 years ago. As expected, I would dig around for the best a cappellas I could find and I didn't pay attention to licensing or any legal issues whatsoever. However, in 2003, I took it upon myself to create remixes using only a cappellas that were available under a free license. After extensive searching on the Internet I found exactly zero. When I tried to solicit a cappellas I was often met with a huge amount of resistance from singers and especially their management, *especially* when I explained the nature of the license I was seeking for their works. The only artists who were eager to hand over their a cappellas upon request were signed to Magnatune, a CC label. I used every a cappella I got from Lisa DeBenedictis, c. layne, Brad Sucks and Norine Braun in a project called "Magnatune Remixed: Ridin' the Faders" which was released in December 2003.

When ccMixer debuted in November 2004, I seeded the a cappellas section with the only liberally licensed a cappellas I knew of: the ones I used in the Magnatune remix project. My hope was that I could kick start the cycle of mutual attraction between singers and remixers, attracting the best of both to the site.

Within two years of launch we had over 500 a cappellas on the site and, not surprisingly, 95% of them had been remixed. As of this writing, there are over 1,500 'pells and counting. I'm not a mathematician (in fact, I just needed spell-check to spell it correctly) but I'm pretty sure growth from zero to 1,500 is somewhere in the neighborhood of infinity. That means producers and remixers will never have to go through what I experienced just four years ago - if you want a legal, sanely licensed 'pell, all you have to do is stop by ccMixer.

In the early days of the site I spent a great deal of energy doing whatever I could think of to attract singers and convince them to upload their 'pells. Once uploaded, the best 'pells would get all the attention I could muster, including behind-the-scenes mailing sessions to the best remixers on the site pointing out the new 'pell. When they uploaded a remix of merit I always made a big deal of it and continued to massage both singer and remixer. (If this all sounds manipulative, it was only done with a love for the music. I saw my job as making sure these musicians were aware of each others' works and that the site was serving their needs.) As the cycle continued, and having secured a healthy bevy of great remixers, the site became an easy sell to the best singers.

As a gigging musician in Los Angeles in the 1980's, I often saw the same pattern: a female singer, with a good voice and decent enough songwriting skills would be fronting a band that inevitably included the boyfriend in a pseudo-arranger role. The boyfriend and singer typically had a compatible rapport (musically speaking) which formed the basis of the band's sound. In the age of MySpace, this model is simply transferred onto the Web. There are thousands of pages devoted to female singers whose background music is produced by the boyfriend or husband. In both cases the couple met through typical social encounters - gig, bar, dance club, etc. (Real musicians don't hook up at dinner parties.)

Representing ccMixer, I lobby any great singer I can find to upload solo a cappellas, without any of the boyfriend's backing tracks to ccMixer. All I say is "Please, just upload the a cappella and see what happens. Don't be afraid. Trust me." If I succeed, she will upload the 'pell and "what happens" is that she gets remixed a few hundred times. Because we don't vet for quality on ccMixer, some of them will be pretty terrible - mismatched in key, timing issues and other disasters. Most of them are pretty decent, good actually. But about a dozen of them, "an album's worth," will be world class and

(hopefully) inspires her to send her boyfriend back to the bar they met at because unless her boyfriend is Brian Eno, there is *no way on Earth* that he's better than all 17,000 remixers on ccMixer.

3.3.1 *Why (Free) Music Doesn't Suck Anymore*

A cappellas, indeed, have become the fuel for what makes the site work. They ensure an overall aesthetic quality and that alone continues to make ccMixer relevant to musicians. More than a few of the best remixers have made it clear it was the great 'pells that attracted them in the first place.

For the rest of us, the less-than-best remixers on the site, the affect is profound. You might enjoy a fourstones instrumental remix – or you might not. The nice thing for me is that I can add Silvia's voice to it without taking a chance she's having a bad day during an explicit collaboration. I can hear her fantastic vocal performance as it sits in the Pool. Here's the real kicker: by collaborating with Silvia in this way, you think better of fourstones music because, in fact, *my sound is better* with her vocals than without it. This is important to note because it was not the cause of CC that hooked the best musicians (who never heard of Lawrence Lessig and still have not visited the Creative Commons Web site) into the open content world, it was the chance to share in a pool of high quality stems³⁵ and 'pells, a chance to improve their sound.

An awakening is triggered in the musician when you add frictionless access to the 'pells, a disassociation from commercial enterprise and a model where musicians retain ownership of their work. As their remix is picked up by a YouTube video or podcast (both of which we track on ccMixer) more lights start to come on. Finally, as with Silvia herself, they start to notice a relationship between the gift economy and their own artistic process. As I have witnessed many times in the last four years, this relationship is what produces a fundamental shift in the musicians' understanding of what is possible with reforms in ownership, attribution and sharing.

3.3.2 *The Pros vs. The Artists*

Lessig divides the motivation of participants in a sharing economy into “me-regarding” and “thee-regarding.”³⁶ Playing softball on a Saturday afternoon in Central Park against a rival law firm is a me motivation. Ladling soup in a homeless shelter on a Sunday afternoon is thee motivation.

The relationship I describe between the remixers and 'pells above is classic me motivation. ccMixer provides a service to remixers by giving them access to fantastic singers without any more effort than browsing the a cappellas section of the site. Putting the remix into the Commons is seen as a small payback for the chance to work with a premier vocalist that actually, you know, sings in key.

Roughly two and a half years into the project ccMixer started attracting a new kind of musician: the professional producer. When they first arrived, they were far less adventurous than the remix artists we were used to but their productions were so well put together and slick (in a good way) that it was a treat to have them on board. Rather than take a 'pell into a deep, personal artistic place, they were expert at pleasing the customer. What I mean by that is that they would create perfectly executed “straight up” productions around a 'pell that succinctly matched what the singer had in mind, regardless of genre.

Many of these producers had come from another remix site, one which operated under an “All Rights Reserved” model. After a while at ccMixer however, as transformation had been noted. More than a year after they moved over, one long-time observer, a fellow remixer, noted in a review:

It's been a year of surprise from people like you and [others] who I thought I had neatly categorized [at the other site] into a style and who have brought new things seemingly out of the blue.”³⁷

Out of the Pool, actually. This is a snapshot of an artist half-way through the realization of what is enabling a newly found sense of adventure and innovation.

The surprising thing to me about the professionals was their initial attitude toward the 'pells. It took me a while (and several Victor-schooling, pointed email exchanges) to figure out what was going on and even longer to build an honest appreciation for it. You see, when you're a professional producer at the top of your game the last thing you're starving for is a decent singer. Great singers will *pay you* to work with them, that is how you make your living after all. It shouldn't be surprising in this context that the pros see their remixes as the gift. They are providing their services to these singers (and incidentally to the Commons) *pro bono*. Classic thee motivation. The rest of us are all playing softball, these guys are handing out delicious free soup.

And thank heaven for their gifts (and their patience with me) because just by showing up they brought more than just great music, they were giving mainstream credibility to the entire open music movement.

3.4 Original Productions

When ccMixer opened its doors, along with 'Samples,' 'A Cappellas,' and 'Remixes' there was a section devoted to 'Originals.' This was intended for the type of music you typically find at most sites, a fully mixed original performance that may include samples, but not from the Sample Pool. You could say these were "pre-mixed" recordings.

Having pre-mixed songs was less than ideal for a site looking to encourage sampling and remixing because once the instruments are blended together it is impossible (except in the rarest of cases) to isolate the individual components. However, there was such a dearth of CC licensed music that allowed derivation, I succumbed to the necessity to "pad the Pool" early on.

As I feared, the pre-mixed originals were rarely used in remixes. Samples of isolated instruments had a 50% chance of being remixed and a cappellas were being remixed at rate over 90%. Meanwhile pre-mixed tracks were at less than 10%. They were just taking up space.

Around the same time, musicians and bands, the kind that write and record their own songs, were becoming more savvy about the Internet. By the end of 2004, the price of hosting their music on the Internet was dropping to barely more than a broadband connection. In the parlance of web geeks you would say the transaction costs were "lowering the bar of entry."³⁸ If a musician was inspired by the CC/WIRED contest and actually "got it," they might be eager to post their music under a CC license somewhere, and all the better if there was a chance for it be remixed.

Boy, did ccMixer fit the bill if you were one of these bands. It was free (as in beer), it was getting noticed and there was even an 8.5% chance that you would get remixed which, as we've seen, even a musician knows is infinitely more than at other sites. You'd need your head examined if you were going to walk away from a chance at that much exposure. And did I mention it was free?

Here's the problem: ccMixer is supposed to be about what Lessig refers to as Read/Write (RW) culture³⁹ but the pre-mixed uploads were mainly Read Only (RO). About 91.5% of the time as it turns out. Even worse, the un-sampled pre-mixes obscured the all important attribution tree feature of the site. All these tracks were orphan nodes, disassociated from the tree.

How could I ever prove that a distributed, derivation based model of creating music was viable if the site was overrun with thousands of orphan tracks from every late-night laptop dorm room experiment done in the last 10 years? I was looking for musicians who were willing to take a chance on a new, different tool. I wasn't interested in what you could do on your own or with a small group of drinking buddies - I wanted to see what would happen if we threw you into the deep end of the Pool.

I decided we would simply refuse to take an album's worth of original material in one upload. After a few weeks of manually going around deleting these kinds of submissions (typically at the behest of annoyed remixers) I coded up a quota system that severely limited the number of 'Originals' per account.

I also made some interface changes on the site in order to encourage the idea that remixing was something to be valued. In place of an empty attribution tree for orphan nodes, I put the words “This has not been remixed.” For an artist profile I highlighted the number of remixes that artist had and how many times they had been sampled. If the answer was none to either I put the words “This artist does not have any remixes and has not been remixed.” Passive aggressive? Sure. Did it work? Er, no.

Finally, by mid-2006, I just disabled the ability to upload pre-mixed music completely. The only mixed music we would allow for upload to ccMixer are those that use samples from the Pool. The 'Submit' button on the upload form would remain grayed out until the uploader specified and attributed the Pool sources they used in the remix. The new policy became: if you want to upload original music then you'll have to upload the constituent parts to their proper bins - instrumental stems go in the sample section, vocals go to the a cappellas section. If a band was willing to do this I figured they understood what was happening at the site, otherwise, more than likely, they were confusing us with MySpace.

Now, consider what this means: if your band records an original song with vocals, drums, bass and guitar mixed together and you package it as an MP3, then ccMixer will reject it. As far as I know we are still the only “music site” on the Web that bans original music. You would think a policy like this would greatly hinder the number of uploads and users to the site. And you would be right.

I am convinced the single biggest reason ccMixer does not get the huge membership numbers that other music sites enjoy is because we actively turn away bands and musicians who want to post their albums and walk away. Once again, if the site were part of the commercial economy I'm sure I could never have pulled it off. Many a VC funded music site have come and gone that required registration just to *listen* to the music on the site expressly so they could “pump up the numbers” to dazzle advertisers and second round funders. But as it was, by banning pre-mixed originals, I could control the experiment, enforcing a proactive participation in the Pool.

3.5 Policing Quality: Yikes!

It's easy to forget how dismal the landscape looked when I began my journey as an open music activist in 2003. In the summer of 2004, the Creative Commons staff gave me posting access to their weblog with an assignment to feature music on the Web that was licensed under CC. It was a struggle to say the least. The idea was to post once a week. I was lucky to squeeze one out every month. The CC licensed music I did find lived up to free music's terrible reputation. Frighteningly so. It was clear to me that if open music were to be taken seriously it would need an infusion of quality music.

If I were to be honest with myself, I would have to acknowledge that if Stevie Wonder showed up and wanted to post every pre-mixed track from “Songs in the Key Life” to the Commons through ccMixer that I wouldn't have thought twice about what to do. Sure, there was brand name recognition, but I would have accepted them no questions asked because of the quality of the music. In other words, if a Wonder-like musician appeared with the same quality music I would have reacted the same way.

Instead, the music flooding the 'Originals' submit forms and clogging the 'Latest Uploads' listing (which at launch was on the home page) was from the sites that I had found but couldn't bring myself to feature on the CC blog. The idea of hosting this music *en masse* was even scarier. We were in very real danger of quickly becoming just another warehouse of sub-par free music that reinforced and justified, yet again, every free culture critic's damnation.

Right about now a sharing economist is wincing harder than if he had rear ended a delivery of lemons. I understand. Really I do. If a project is based on the sharing economy where diversity is king then surely the more sharing and diversity the better. How could I justify any kind of active curating in the name of quality control on a site that claimed to be representative of free culture?

Fortunately, I didn't have to face that kind of dilemma because as I point out in the previous section the RO format of these tracks made the question academic. They were “off-message” for other reasons. That I could apply a quota and finally, disallow that music in order to maintain the site's integrity gave me an out. It allowed everybody to focus on new productions based on 100% participation in the Pool

model which (I was hoping) would prove to produce better music anyway.

Theoretical Stevie Wonders notwithstanding, I feel secure that disabling pre-mixed originals was motivated for the right reasons and not just a rationale for old school quality control purposes. The fact is, we lost several extremely talented producers who stopped submitting music after the ban was instituted. These musicians felt that using found samples and 'pells was simply outside of their typical working methods. Of course I didn't agree with them but the tools of an artist is very, very personal baggage that we don't trade in lightly. It broke my heart but it was a sacrifice I felt necessary.

However, as I've mentioned several times, the quality of music on the site *does* matter. My "panic scenario" is something we have all experienced. Suppose you stumble upon a music site that features artists you've never heard of. If you listen to a song and that song is really bad, you will *never* go back to that site. And worse, if that site ever comes up in conversation, no matter how diplomatic you are, when some version of "that site sucks" comes up, you *know* you are going to nod your head. I have always felt more than a little pressure because, simply by virtue of being sponsored by Creative Commons, people judge the *entire* open music movement based on what they heard on ccMixter. I took the quality thing very seriously.

If I couldn't control the quality through hard core curating (not that I wanted to for this project), at least I could influence the perception of quality through transparent, sharing-friendly methods.

3.5.1 Editors' Picks

After our community built up a little steam, I borrowed the "staff picks" idea from my local book store to institute "Editors' Picks." I gave a small group of the musicians access to a special feature which allowed them to highlight and comment on especially good remixes. I wrote up a "How to Pick" document with some guidelines, the chief one being to pick material that would make the site look good.

This feature had all the issues you would expect would fall out of having a small "elite" staff anointing status gifts on everybody. The worst problem was that I had picked some really great remixers as editors so there was a heavy tendency for editors to pick each other. This gave the impression of an "in crowd" of friends stroking each other. I would have put the hammer down except the music they were picking was pretty fantastic. The other big problem is the picking requires work. The editor has to invest time on the site and make a responsible choice.

Most of the issues are mitigated, if not solved, by regularly rotating editors in and out of the role. No matter what the problems are, having this kind of showcase on the site has proven invaluable. The "Editors' Pick" feed has the most subscriptions on the site and the music itself is the most frequently used in podcasts, videos and write-ups. The feature was a hit, warts and all.

3.5.2 Latest Remixes Listing

I also reorganized the site a few times to highlight tracks the community liked.

In the days when we had the "Latest Remixes" listings on the front page, I noticed that when a good, solid remix was at the top of the listing, we were retaining more first-time visitors according to the site's access logs. When a weaker remix sat there for a while, visitors were bouncing away at a noticeably faster rate. Here was statistical proof that by having the "Latest Remixes" listing on the front page I was enabling my own panic scenario. (I also noticed that other content sites [like YouTube and ACID Planet] were guiding me toward the most popular new uploads, not taking a chance on the very latest random upload.) I replaced all first level links from the home page with a pointer to the Editors' Picks and user ratings chart which I describe in detail later. Almost immediately we were retaining almost twice the number of visitors' that took a chance on our music.

3.5.3 Reviews

People, especially artists when reviewing each other, are nice. (Or they are hopelessly adolescent trolls which is only slightly less annoying.) Which means, unless you have Amazon or Digg numbers, reviews are worthless to the casual visitor. My solution was to, oh so naively, set a standard of tough love for reviewing. If someone came to the site and heard a terrible piece of music, the reviews would at least prove that *we knew it was bad*. Being of the intellectual hippie persuasion myself, I always felt it was possible to be compassionate, articulate, respectful, constructive and honest all at the same time. Surely, as a species we have evolved past the primitively quaint notions of Carnegie's "How to Win Friends..."

As I learned, even if a miracle occurs and you pull off that balance (which, of course, I never did) I'm still being critical of somebody's baby and that makes me (what else?) "Hitler."

After two years of being called "fascist," "pompous" and "arrogant prick," after my and another administrator's private email address had been signed up to hundreds of Yahoo! porno mailing lists (through anonymous account forwarding), after our pictures had been posted on herpes infected lovers wanted sites, it finally occurred to me that whatever credibility gains the site was getting for being "constructively honest" was not worth it. I know this story is a cliché. I knew it then and yet I still stuck my finger in the socket. "Mr. Stone, your Darwin Award is ready for pick up."

3.5.4 Ratings

For the first three years of running ccMixter, the ratings system was the curse that kept on giving. My lack of expertise in Web design and community psychology was brought to the fore and it was a struggle just to figure out the basics.

At first I was hoping to avoid any ratings system at all. The "artist" in me saw ratings as a means of competition. It's likely there are areas of human endeavor that are enhanced by pitting one person against another but I have never been able to convince myself that competing with other artists enhanced the creative process.

The demand for ratings from all corners, however, was overwhelming. People who know about Web communities will tell you that the more "participation" in the site the better. I was told by people I respect and admire and who are responsible for very boisterous Web community sites, that ratings would be an important and easy way to foster participation. I figured if a rating system would guide visitors to the better music on the site, it would be worth a try.

So, I started down that road. The first ratings system was a five star configuration, "1" being the lowest, "5" being the highest. To produce the "ratings chart" I read all the stuff you're supposed to read about scoring algorithms, got out my slide rule and set up elaborate formulas with variables I could tweak.

For the user interface I first tried tying to them reviews: you could only rate if you reviewed and if you reviewed you had to rate. Then I disengaged ratings from reviews. I made them anonymous, then I made them attributed. I was asked by some users to make the system into a 10 star system because, as I was told, sometimes the remix is "right in between a 4 and a 5," but I never gave in to that one.

All of these variations were problematic in one way or another but it was all so random, subjective and I believed harmful to the site and the cause. I say "harmful" because the average rating was always above 4.5 which meant a lot of junky music was being (literally) over-rated. Without a way to funnel first time visitors to the music that was actually worth their time, there was no way to make the case for what we were doing.

By far the most consistent problem was the stream of emails in the administrator's in-box complaining about a low rating. By "low" I mean 3 out of 5 and by "consistent" I mean every day, all the damn day long.

It took me over two years to finally figure out that there was *never* going to be an algorithm that prevented a musician's feelings from being hurt because they got a "3" rating.

Finally in September 2007, inspired by a forehead-slapping conversation I had with the proprietor of another music web site, I replaced the 5-star system with a simple "thumbs-up" icon. If you like it, you click on the thumb, if you don't, you keep moving. I never got another email about ratings related hurt feelings and it gave me the basis for a much more reliable chart to point visitors at.

3.5.5 Community Curating

Beyond Editors' Picks, several members of the ccMixter community have stepped up to act as curators. As of this writing, we are half way through a year-long self-imposed commitment made by a member, who goes by MC Jack in the Box, to create a weekly "radio show," complete with theme music and voice overs, called the "Cool Music Show." A member called s. c. mixer has taken it upon himself over the last year to create many hour-long mega-mixes that center around genre-specific themes such as "Latin Chill" and "Trance." I've done everything I can think of to draw attention to these efforts because they are done with such love, care and DJ'ing skill. More importantly, they offer powerful showcases of the range and quality of music on the site.

Still, I can't help thinking about the issue of active curating for quality because of the long term implications for the open music movement. As self-appointed guardian of open music's reputation the "only" thing at stake for my all thrashing about was CC's credibility in serious artistic circles. For a site operated by a forward thinking commercial business (not today's ccMixter) looking to create a hybrid of open content and financial income streams, the quality of the content will be paramount.

By way of comparison, an open software project will take submissions from all comers but there is serious, heavy curating going on. Bugs are *fixed*, not published alongside working code given to users. Even Wikipedia, the most open of open content sites, is one of the most vetted sites on the Web. About 90% of the changes are edits, refinements and corrections.⁴⁰ Democratizing the Web is one thing, but in the same way a software project is supposed to yield working software and an encyclopedia is supposed to have accurate information,⁴¹ so too a music site is about music that podcasters, video makers and casual listeners actually want to consume.

If there's a solution for how to leverage the benefits of a huge community of musicians organized as a creative drawing pool and still maintain a credible level of quality, then I haven't seen a comprehensive, convincing way to do it. What I do know from ccMixter is that simply opening the gates and "letting it fly" will definitely *not* get you there.

3.6 Remix Contests

The ccMixter project was birthed as a place to host the entries for the WIRED remix contest. After that event died down in the summer of 2005 we spun up the Lisa DeBenedictis contest in partnership with Magnatune. That contest yielded two and a half times the number of entries that the WIRED contest received. More importantly the entries were of a surprisingly high caliber. Anyone who's been around a record company will know that the acceptance rate for a typical A&R department will only be one of several thousand artists submissions. In a conversation with John Buckman of Magnatune, after he had listened to all of the Lisa DeBenedictis contest entries, he estimated that nearly half were "sign-able."

For the following two years we ran a remix contest every few months with varying degrees of participants. By far the most popular was in partnership with Warner Bros. recoding artist Fort Minor, a side project of multi-platinum selling Linkin Park. But the constant stream of remix contests proved problematic for several reasons.

Web hosted remix contests were an extremely popular promotional tool used by many web sites. For every contest we ran we would get many first time artists to the site, most of whom uploaded a single contest entry and then never visited the site again. (There were over 400 of this type of user in the case

of Fort Minor.) At the same time we would pick up a few gems that stuck with the site and became very active members of the community.

By the summer of 2007 our core set of users finally suffered from 'contest fatigue.' Many of them would simply stay away from the site during contest entry periods because of the singular focus the contests inherently fostered. In a typical remix contest, including many of ours, a label would provide the stems to a single recently released song for remixing. ccMixer would be overrun, especially right before the entry deadline, with dozens of uploads all remixing the exact same a cappella. The number of participants for remix contests was actually *decreasing* as we piled them on one after the other.

Around this time I was getting a lot of emails from our devout members stating they were not interested in being used to simply promote B level recording artists. I tried to point out that these artists were taking a big, important step. In every remix contest on the Web, the stems and a cappellas used as remix source material were all rights reserved with an extremely limited license that never allowed sharing or remixing in any other context but the specific contest and therefore expired when the entry period was over. Even worse: the sponsors owned 100% of the rights to each entry. That way the label could release the remix and never owe a penny to the remixer. For our contests the source material and the remixes were in the Commons. The remixer owned the remix and would forever. More importantly, the original artist was putting their stems into the Commons forever which means we, or anybody, could host them and remix them long after the contest was over. That alone made these artists worthy of our support.

As I heard myself making these arguments I couldn't help feeling that not only were our members correct about being used, the case I was making was a great argument for *not* having contests at all. Consider there are specific laws that kick in as soon as you say word "contest" that triggers liability and other flaming hoop jumps nobody in the CC office wanted to think about. A contest that has something called a "prize" worth over 300 USD brings a whole other level of red-tape bureaucracy. So if we can't have any prizes, if the deadlines are meaningless in terms of the license, if all we are doing is picking up a bunch of one-time-only mediocre remixers then what the heck were we doing with a promotional marketing device that was simply pissing off our most valued users?

In the middle of these struggles, came Ben Dawson from BBE Music. We had run a DJ Vadim remix contest with Ben earlier in the year with a couple of tracks from Vadim's latest album, but now he was asking something else: Would ccMixer be interested in hosting *all* of the stems from Vadim's album?

With the Vadim album we had a model for how to move forward: we would reserve the hype that used to go toward remix contests for artists who were willing put their entire album, including stems and a cappellas, into the Commons and simply make an open ended 'Call for Remixes.' In hindsight it became clear that an ACID Planet style remix contest is a promotional tool that fits the needs of all rights reserved based major labels and our style of call for remixes is a much more natural fit for an open content environment. To put it in philosophical terms: contests were a construct of the commercial economy and simply didn't fit into ccMixer's sharing economy.

In just over a year since we instituted the move away from remix contests we have featured half a dozen (amazing) albums this way. With each album the Commons picks up gigabytes of super high-quality recorded stems and a cappellas. Ultimately, my hope is that we are setting the bar that much higher for what musicians expect from a music hosting site.

3.7 Licenses

Creative Commons exists to give artists a way to signify, through a set of ready-made licenses, what can and can not be done with works posted to the Internet. A full explanation of CC and the licenses is beyond the scope of this document but clearly it is a cause I consider worthy.

The popularity of the CC brand adds to the power of the licenses - the more people know what the brand means the less questions, the more legal sharing and reuse, the richer the culture. The potential downside of that popularity is that more people are likely to make bad assumptions about what the

brand actually means in legal terms. For example, there is a range of permissions between the individual CC licenses and there is a non-zero learning curve on recognizing which of those permissions apply to a piece of art with a given CC license.

At the risk of perpetuating the (wrong) meme that the CC brand simply means “do what you want,” I thought it was essential to create an environment at ccMixer that worked within the CC domain, but still gave the remixers safe haven from legal worries. I wanted to put the best possible face on the licenses that I could credibly get away with presenting. Is that spin? I hope not. Either way, this goal turned out to be laced with challenges. Worth every effort, but laced nonetheless.

3.7.1 The Sampling Licenses

An important element of the roll-out for the CC/WIRED contest was a new family of CC licenses aimed specifically at sampling and remixers. I won't go into the history of these licenses but mistakes were made and lessons were learned.

My mistake was ignoring public calls from CC to join the discussion during the drafting of these licenses in the summer of 2004. I figured this was “legal stuff” and everybody knew what they were doing and had the best intentions. All that was correct but I should have made my opinions heard before and not after. Had I been a better CC citizen, I could have avoided a lot of grief later, after the site opened, after I realized what these licenses really meant. My involvement might not have made a whit of a difference in the drafting phase, but at least I would have been better prepared.

A few months after the launch of ccMixer, I had come to a bitter conclusion. The Sampling family of licenses had restrictions and requirements that I came to believe were doing more harm than good to the cause of demonstrating reuse. Audio samples with these licenses were legally incompatible with audio samples licensed under other CC licenses. Even worse, remixes with a Sampling license could not be used as video soundtracks – not even in amateur YouTube-style videos. I was concerned that we could not credibly claim to be the “sane” alternative to an “All Rights Reserved” model under these conditions.

I made my case to CC staff and they agreed to discontinue supporting the Sampling licenses on ccMixer and green-lit a “re-license” campaign on the site that gave musicians a chance to remove the Sampling licenses where legally feasible.

Since then, CC came under fire for having too many license options, confusing potential adopters and support was dropped for the one of the lesser used Sampling licenses. The others still exist as options in the CC license chooser but have a much lower profile than in November 2004.

3.7.2 ShareAlike

We settled on supporting two licenses commonly known as: Attribution and NonCommercial for new uploads. That means a musician posting original samples and a cappellas could say “copy or remix my sample in any context, even in a commercial project” (Attribution) or “copy or remix my sample, but if you use it in a commercial project you need to contact me first so we can work something out” (NonCommercial). Both licenses require giving credit to the musician you sample.

If someone does use a sample with one of these licenses in a remix, they are under no obligation to license the remix under a Creative Commons license. This is great when it comes to choice and freedom, but it's not optimal when you're trying to spread CC.

There is another license feature that would force the remixer to license the track under CC, it's called ShareAlike. We could have offered ShareAlike and NonCommercial-ShareAlike on ccMixer as two more options. The problem is that ShareAlike is not combinable with the non-ShareAlike version of NonCommercial.

Eyes glazed over? No kidding.

Here's what that means. Joe the remixer wants to use two samples from the Pool in his remix. One sample is licensed under NonCommercial, the other is ShareAlike. In order to do so legally he would have to get permission from the person that uploaded the ShareAlike sample. If he didn't get permission he would be in exactly the same boat as if he had sampled a Michael Jackson record: copyright violation.

At this point, I was facing a serious dilemma. On one hand, I would love to encourage CC license adoption by using the ShareAlike license. On the other hand, the last thing I want to do is enable musicians to post copyright violated remixes to ccMixer simply by having the wrong combination of CC samples.

I didn't ruminate too long on this one because I quickly decided it was more important to have a totally "safe" environment where any two samples could be mixed together legally. I had a nightmare scenario of a producer spending weeks on a remix using samples they had downloaded exclusively from ccMixer only to find out they were in violation of the law. I wanted to give musicians *some* hope.

The real issue here is the NonCommercial license which is very popular and drives adoption of CC, but has been problematic. I can't speak for how CC deals with the rest of the world but in my experience, when I have a problem it is met with transparency, an appreciation for honesty and a healthy distaste for false sacred cows. Consequently, I'm happy to report there is currently a major re-think under way regarding the NonCommercial licenses with lots of help from the community and academia. This time, I let my feelings be known. You should too.⁴²

3.7.3 Licenses for Remixes

As matter of policy on ccMixer, to simplify things for musicians, no remix can specify a CC license. Instead, you "inherit" the most restrictive license from the samples you use. For example, if you use two samples where one has the Attribution license and the other has the NonCommercial license, then your remix will be posted under a NonCommercial license because that one is considered "stricter."

3.7.4 The Heavy Breathing Factor

Creative Commons attracts a lot of academics who are eager to mine ccMixer's data that we've collected over the years. The most common thing they are looking for are patterns of behavior with respect to the CC licenses. Understanding this behavior and how to increase the musician's awareness of their choices is important to the future viability of CC licenses. We are happy to oblige and make all of the internal database tables - minus user Internet connection IDs, emails and passwords - to just about anybody that asks. And we get asked a lot, especially around doctorate season.

Unfortunately, decisions involved in making music are emotional, based on aural proclivities and none of that is captured in ccMixer's internal database tables, even as scientists do their best on semantic audio profiling tools.⁴³

For example, we don't track the gender of the singer or remixer. Yet, the primary demographic of ccMixer remixers is a male. How do I know? Below is a chart of the top 12 most remixed a cappellas.⁴⁴ Note the gender proclivity (I added the last column manually):

upload	artist	#remixed	gender
Ophelia's Song	musetta	64	F
Sunrise	shannonsongs	63	F
Lies	trifonic	54	F
Matter of Time	shannonsongs	49	F
Girl and Superg	lisadb	48	F
Sooner Or Later	trifonic	46	F
Magic In Your E	Songboy3	43	M
Whatever(acappe	Tru_ski	42	M
September	calendargirl	42	F
Broken	trifonic	40	F
Freedom	snowflake	36	F
We Are In Love	shannonsongs	36	F

A further look at the data reveals that it typically takes a male singer or rapper roughly twice as long, at twice the uploading pace, to reach the same number of remixes as his female counterpart.

The preference seems to go further than mere gender, and this is where simply mining the data as numeric values completely breaks down. All of the female a cappellas in that chart can be said to share the same vocal style. The performances could be called laid-back, cool, breathy. If I were a less enlightened person I would say they sound, in a word: sexy.

We have had uploads by a few women that have a stronger, more dramatic vocal style. These are fantastic singers who could really belt out a melody, American Idol-style. Yet, they completely fizzled on ccMixter, with barely a remix, and of those, many were pretty terrible. This is *not* a reflection on the singer. Again, these are truly gifted vocalists who simply are not to the personal taste or don't fit the harmonic profile of the better remixers on our site.⁴⁵

Regarding which source material to use, the conclusion I've come to is that liberal licenses are less about choice and more about enabling. The decision whether to use a specific piece of music or not is based on the content. If it's available without legal strings attached all the better – but the decision rarely starts with a license agreement. This is clearly the case in a non-commercial environment like ccMixter, but art is what comes first to an artist – the rest is back-fill.

3.8 What's Missing

The list of things I'd love to do, or have done, to ccMixter is very long and could easily double the size this document.

In May 2007, Creative Commons announced a Request for Proposals to hand over the operation and assets of ccMixter to someone else. As of this writing, the process has not been concluded. For the benefit of whomever is charged with running the site or any reader thinking about an open music site, I offer some ideas we did *not* get to implement in the course of operating ccMixter, limiting the scope to what I consider to be critical challenges.

3.8.1 Money – The Other Scratch

Lessig and Hyde both use a form of the word “poison” when talking about money's potential influence over the integrity of a sharing based enterprise. (Have you ever seen what happens to a casual softball game between law firms when betting is involved?) But Lessig identifies many cases where a hybrid has succeeded (craigslist, flickr, etc.) and suggests that future success on the Internet may depend on the flexibility required to manage a hybrid business.⁴⁶

Every now and then we get word that a musician on the site has been contacted by a commercial business for licensing a remix or signing the musician to some kind of contract. Lessig uses this phenomenon at ccMixter as an example of “crossover” between the sharing and commercial economies⁴⁷ and we certainly made hay when it happens.⁴⁸ Many people's first (and last) question about ccMixter has to do with crossover to the commercial world. This includes several people at CC. They understandably assume that commercial crossover would be the ultimate goal of the site and therefore use it as a measure of success for the project. The more musicians that are “discovered” on the site, the more the site is “working.”

I wouldn't disagree with using crossover as a unit of measurement except for one thing: no one has done anything about it. As far as I know, nobody associated with the site has ever actively solicited commercial music enterprises for money to be directed at the musicians on ccMixter. The fact that musicians *have* been noticed on the site and that money has changed hands is a happy little miracle, it is certainly an important thing to check off the list, but it is not the ultimate test.

Not only has there been no one soliciting for money in the commercial economy, there are also, sadly, several cases where proposals, initiated by businesses, have lead to dead ends. Even though a remixer was offered money for their remix, the artist they sampled could not be reached through the site, so the money for the remixer never materialized.

I would have been happy to do commercial solicitation and deal-making facilitation (assuming there was a way to do it within the 501(c)(3) charter) because *of course* I would like to enable musicians' career aspirations to come to fruition. *Nina nem* as my mother would forcefully say.⁴⁹ But I've been busy.

In the last four years, we've established that a pure gift economy, modeled as a commons, raises the level of innovation (and arguably quality) of music production. We've shown how musicians will recognize the link between the sharing economy and their creative process which inspires them to grow the commons even more. And, oh, by the way, we've also demonstrated that, without any prompting from us, the music business is willing to pay for the results thrown off by the collective.

The key to success at ccMixter is that purity in the gift economy. Throughout this document, I've called out several occasions where an old-school, strictly commercial economy business making different decisions would have gummed up the grease that turns the wheel. I'm assuming that, somewhere out there, there is a business entrepreneur who can appreciate the *entire* project and pull it into a hybrid economy. She can imagine, for example, what happens when you actually add some outgoing solicitation and facilitation for incoming requests.

3.8.2 Open Payment Protocol

More crossover, as in a list of Hollywood credits, would certainly provide potential business partners with the “recognition of success.”⁵⁰ Allowing contact information to atrophy and thereby ignoring email inquiries to license music for money is not optimal for achieving that end.

One possibility would be to create a mechanism to funnel money to the artist (and all the artists they sampled) cleanly and automatically. If I post a remix that gets licensed for money, I expect everybody I sampled would get paid automatically, even when the sample was posted on another site.

Personally I would hate to see the actual royalty payment system turn into a proprietary, competitive marketplace. From a musician's perspective I want music hosting sites to add value on top of an established, open protocol between sites.

The ccMixter attribution tree and the Sample Pool API serves as a non-commercial skeleton today but could be expanded, perhaps with CC+ technology,⁵¹ to include a royalty pipeline between artists, even when they host music on different sites. The tools for royalty payments can be made as transparent as simple attribution – in the case of ccMixter that's done by picking the sources from a search result list.

The type of features that would be needed on all commercial music hosting sites includes:

1. A way to automate payment to an artist such as a PayPal(tm) account.
2. A choice of pricing schemes that allows someone posting an a cappella or sample to set a price for different scenarios of usage. For example: Free for schools, \$10 for short videos, \$100 for films, etc. I would even be interested in an "expiration price." This says: if you can't reach me through the means I supply within XX days, then the price is XX amount (including zero).
3. A marking on every a cappella or sample that signified it has been "cleared" - meaning it is either free to use in a commercial context through an Attribution license or there is a clearly marked price (depending on scenario) and a way to make payment on it.
4. A remixer can set the price(s) for his own remix but the total fee for the remix will include royalty payments for the artists he sampled.
5. Payment would be posted to the site and distributed automatically to the remixer and everybody sampled including, through the royalty pipeline, artists on other sites.

Again, it would be a mistake to make this payment system part of a proprietary competition between businesses. Music hosting has plenty of areas to compete in for value-added services. Like effectively soliciting for licenses.

3.8.3 Spreading the Word

Creative Commons has been the perfect host and sponsor for ccMixter but there's a reason why they are looking for someone else to take it off their hands. They have taken the site as far as a non-profit intellectual property activist can take it.

I had the occasion to have a long talk with a person that makes a living consulting with Web site operators on building online communities. It was extremely fascinating and just as frustrating. To say there is a lot to be done to spread the great music on ccMixter (and its cool message) into the world is an understatement. Creating a podcast and pumping it into iTunes, actively going after YouTube-style video makers, an iPhone app, a Facebook app (heck a Facebook *page* for heavens sake), actively seeking inclusion in audio tools, live events, on and on. On the site itself, it would be ideal to have a "consumer facing side" that focused on non-musicians strictly there to enjoy the music. These are just some of the top-line opportunities that are sitting on the table.

Considering that we've relied solely on the blogosphere and simple word-of-mouth, it's inspiring to see that the community is thriving. What comes next is what comes next and if it's anything like the last four years I can't wait.

4 Conclusions

There is clearly much more going on at ccMixter than propagating the CC brand.

The manifestation of a derivation-based sharing economy has become an important model for other disciplines.

Thinh Nguyen discusses a system for organizing scientific documents by attaching easily traceable meta-data this way: "Creative Commons has demonstrated this capability with its ccMixter software, which allows meta data to be used to track and analyze downstream impact of creative works, such as remixes and other derivative works originating from a given work."⁵²

“Imagine,” suggest advocates of open education resources (OER), “how features on ccMixer might be applied to create an OER ‘mixer’ for teachers.”⁵³

While music presents unique opportunities, unfortunately they are obscured by social stigmata. The generational baggage surrounding terms like “remix” and “sampling,” the music industry's intransigence toward accepting the Internet, celebrity-culture fueled misconceptions about music's artistic process, painfully antiquated copyright laws and the white-noise rhetoric of the copy (“piracy”) wars must be peeled away before we can even get to the important implications of the ccMixer project.

The derivative facet of music remains one of the most misunderstood and controversial. Perhaps if the human audible frequency range was wider, perhaps if Western music hadn't carved up the range into just 12 lowly notes, perhaps if our hearts didn't beat in a four stroke pattern, then musicians could be more like writers who have 100,000s of English words to chose from and when those fall short, do some whizbangery to invent a new one. Like whizbangery. Instead, liberal quoting and derivation is how musicians work within the confines of this hyper-limited vocabulary.

Of course, as digital sampling is the most efficient form of derivation ever devised, it only heightens the controversy. A mindset stuck in out-of-date modes of technology has been met head on by modern musicians who take derivation, and specifically sampling, for granted.

When you install a new blogging tool, photo editor, video software or word processor it will typically come with a few examples, perhaps in the form of a tutorial. The software in these tools will enable appropriation via cut and paste but there isn't any market pressure to ship the Complete Works of Shakespeare with every word processor. Now consider that every audio editing suite, from high end ProTools™ to the every-man's Garageband™, comes with *gigabytes* of samples that musicians and software vendors assume are necessary for modern music production. The same goes for hardware. There's no such thing as a keyboard or drum machine that doesn't come with hundreds of built-in samples. The good ones enable hook ups to computers or hard disks to expand them even further. Sampling isn't limited to turntablists and specialized sampling hardware.

Meanwhile, the music industry was (and still is) in the throws of a traumatic transition to the Internet, pitting themselves against their own customers and artists. While it may be true that CC “licenses are agnostic,”⁵⁴ those of us involved in the ccMixer project definitely have a point of view. We believe a sane musical eco-system is one that embraces the derivative, sharing nature of music creation instead of pretending musicians conjure in a solitary world of magic.

Lessig, Hyde, Boyle and Richard Stallman have “killed a lot of trees” pointing out we live in hyper-regulatory times. They make a powerful case that the stakes are nothing less than fundamental civil liberties, not the least of which is speech. But I'm not a Constitutional law professor or a social behaviorist.

Here's what I know: I came to Creative Commons via the open music movement as a student of the creative process. Having worked as an office flunky for major record companies for 12 years, I knew the music industry was broken. It wasn't until my second career as a musician playing traditional instruments was stunted by physical issues and I was drawn to incorporating digital samples into my music⁵⁵ that I came to appreciate that our entire culture was broken. Simply by changing the tools that I used to create music, I had moved from socially acceptable, legitimate methods to a vilified and criminal mode of creating art. Art!

Nonetheless, even if every copyright reform we hope for is enacted, the intersection of music and the Internet is still something that needs addressing. There are things going on with music that the copyright fight has been obscuring, issues that “just” reforming the law will not fix. Consider the success of iTunes, the plethora of remix contests, the expert execution of music collaboration sites and other perfectly legal offerings: their models of operation are not only fighting against the connectivity, infinite time-line and sharing nature of the Internet, they have bent the creation and dissemination of music to their tools, rather than the other way around. These incongruities serve as a gating factor on the degree to which their services can inspire creativity and innovation. Even if they all adopted Creative Commons licenses tomorrow, without actually leveraging the commons, they would still leave the art form of

music short a pair of oars.

Beyond numerically spreading the CC licenses, I got involved in ccMixter to take on all those issues by using the commons part to enable the creative part. Over and above what CC was specifically asking for, my goal was to use ccMixter as a laboratory for the hypothesis that if musicians were encouraged to share their remixes, samples and a cappellas amongst each other, they would, in turn, create more innovative, perhaps even higher quality music, to the benefit of everyone. The ccMixter project would be my existence proof.

This document relays an extended anecdote about that project and all the cool shit that fell out of that.

Peace.

5 Meta

The opinions in this document are solely those of me, Victor Stone, as an individual and do not represent Creative Commons.

5.1 Unnamed Sources

Many of the assertions and references in this document are unsupported with citations and references.

All of the comments, attitudes and feelings I attribute to members of the ccMixter community are also unreferenced because when I had those conversations they carried an expectation of privacy. While researching and writing this document I simply did not have the time to go back to get permission and clarification.

Volunteer to be (or pay for) my research assistant and all that will be fixed.

5.2 Disclosures

In early 2007, I had the high honor of participating in Lawrence Lessig's book *REMIX: Making Art and Commerce Thrive in the Hybrid Economy*. He interviewed me for the book and I am mentioned, both as Victor Stone and as fourstones, several times in the final version. ccMixter is also mentioned a few times.

James Boyle and Lawrence Lessig are on the board of CC, which writes my checks. Boyle mentions ccMixter in *The Public Domain*.

John Buckman of Magnatune is my BFF and I am signed with Magnatune as a recording artist.

Lucas Gonze of Yahoo! is also a friend, as are many members of the CC staff.

It would be really cool to know Lewis Hyde, but the only thing I can disclose is a desire to hang out with him and nothing more.

5.3 Acknowledgements

I would like to thank the staff at Creative Commons past and present, especially Neeru Pahria, Mike Linksvayer, Lawrence Lessig, Jon Phillips, Nathan Kinkade, Eric Stuer, Glenn Otis Brown, Alex Roberts, Diane Cabell and Diane Peters for putting up with me and providing me with the opportunity to work on

this very, very cool project. Special shout out to Matt Haughey who has since moved on from CC, but remains a friend, supporter and role model. I've been in the work force for 33 years and have had dozens of jobs. ccMixer? Best. Gig. Ever. If you like the idea of ccMixer you should give them thanks too. Contributing cash to CC might be a good way to do that.

I would also like thank our label partners and friends, particularly John Buckman of Magnatune and Ben Dawson of BBE. Their belief in the site and its cause has been unshakable and a major source of encouragement. Do they have something to gain by partnering with us? Well, at the risk of sounding painfully earnest about it: we all do. If you take the ccMixer project seriously it's because they give it weight.

Of course there would be no ccMixer without the musicians. Thanks to them for sharing their work in the Commons and making our world a little better, one sample at a time. I am awed by how after a very long day of a "real" job and often in the clandestine shadow of a disapproving spouse they have chosen our little corner of the world to vent their obsession for music with breathtakingly inspired results. If you like the music on the site it is their doing.

Special thanks to my friend Lucas Gonze who I met on this project. He continues to be my fountain of inspiration. He makes me sound smarter just by being in his proximity. If you like any specific idea in this document it is likely to have emanated from him.

To the volunteers on ccMixer who help run the site simply because it is there: I can't express how much I appreciate their efforts, most important of whom is Eric Ohara known as teru on the site. My heart races as I type this, thinking of all the moments of pleasure his remixes have given me over the last few years. Don't mess with ccMixer or he will mess you up. If you like the way the site is run it is because of Eric and the other volunteers.

To Michael and Zachary: Stay off PirateBay. No? Well, I tried.

To Cindy: No, PirateBay will not have last night's American Idol. I don't think. Ask the kids.

- 1 Creative Commons is a non-profit intellectual property advocacy group that provides tools for content authors to make it easier to share their works. Chief amongst these tools are a set pre-authored licenses that signify to the artists' Web audience, which part(s) of their copyright they are willing to suspend. The ccMixer project is a rare case where they actually host 3rd party content (music) on a Web site.
<http://creativecommons.org>
- 2 According to a survey of ccMixer users, when asked "What are the key features of ccMixer.org for you," only 26.7% chose "The site administrators understand me" - the lowest response of all the other choices.
<http://creativecommons.org/weblog/entry/8323>
- 3 Calvin Calverly.
- 4 Thomas Goetz "Sample the Future" November 2004
<http://www.wired.com/wired/archive/12.11/sample.html>
- 5 Matt Haughey - Creative Commons blog, "Wired CD tracks online, and CC Mixer, our new remix community site, launched" November 11th, 2004
<http://creativecommons.org/weblog/entry/5036>
- 6 CC Content Directories "Audio" section
http://wiki.creativecommons.org/Content_Curators
- 7 Online Etymology Dictionary "compose" entry
<http://tinyurl.com/stone-compose>
- 8 It could be the term was first applied in Thomas Morley's English textbook from the same year "*A Plaine and Easie Introduction to Practicall Musicke*," an examination of Italian madrigals. Without access to this text it's hard to say. Even if it comes from Morley, the connection between 'composer' and Corsi is meant to be illustratively anecdotal and is still relevant to the larger point.
- 9 That the Greeks actually sung at these recitals has been brought into dispute, but the salient point is that Corsi, et. al., *thought* they were borrowing from the Greeks in an homage.
- 10 The distinction between "art" and "craft" is hotly debated and therefore froth with danger. The descriptions I use are for argument purposes only and admittedly, comes from a embarrassingly parochial knowledge of crafts and craftsmanship. I hope nobody interprets my usage as a slight.
- 11 Danny O'Brien "Copyright, Fraud and Window Taxes (No, not that Windows)" August 7, 2008
<http://tinyurl.com/stone-obrien-windows-taxes>
- 12 Rasmus Fleischer "Copyright in a non-linear perspective" presentation at FSCONS 2008, Gothenburg, Sweden
Video available here: <http://giss.tv/dmmdb/fscons>
- 13 "Paradoxical Undressing," A live show witnessed by the author
January 25, 2009, Sydney, Australia
- 14 Howard E. Gruber, Katja Bödeker *Creativity, Psychology and the History of Science* The relationship between the "a-ha moment" and repetition are explored in the chapter entitled "Creativity and the Constructive Function of Repetition" Pg. 195
- 15 Peter Norvig "Teach Yourself Programming in Ten Years" (last visited January 12, 2009)
<http://www.norvig.com/21-days.html>
- 16 Andy Baio "Girl Turk: Mechanical Turk Meets Girl Talk's "Feed the Animals""
September 10, 2008
http://waxy.org/2008/09/girl_turk

- 17 Lawrence Lessig *REMIX: Making Art and Commerce Thrive in the Hybrid Economy* 2008, pg. 14
Lessig quoting Gregg Gillis a.k.a. Girl Talk.
- 18 Mike Linksvayer - Creative Commons blog, "Lessig/Colbert remixes on ccMixer" January 12, 2009
<http://creativecommons.org/weblog/entry/12058>
- 19 Mariano Ferrario, et. al. "Open Media Remixing and Sharing" University of California, Berkeley, School of Information Management and Systems 2005
http://www.ischool.berkeley.edu/~mariano/includes/290_finalPaper.pdf
- 20 *ibid* Emphasis theirs.
- 21 There has been occasion when I have said 'this is a remix site' in the specific context of trying to encourage musicians to think about ccMixer in a manner different than what is typically known as a musicians' web site. I go into detail about this later in this document.
- 22 This paragraph is a remix of a section from *The Gift: How the Creative Spirit Transform the World* Lewis Hyde 1979, pg 82., the key phrase of which is "A scientist may conduct his research in solitude, but he can not do it in isolation."
- 23 Jon Pareles "For Old Rhythm-and-Blues, Respect and Reparations" New York Times, March 1, 1997
<http://tinyurl.com/stone-nyt-reparations>
- 24 Hyde *The Gift* 1979
- 25 Lessig *REMIX* 2008
- 26 John Buckman "What is 'Open Music?'"
<http://magnatune.com/info/openmusic>
- 27 Hyde *The Gift* pg. 85
- 28 "All Fruity, No Loops: FL Studio to Remove All Melodic Samples; Murky License, Content" by Peter Kirn
<http://tinyurl.com/stone-cdm-fl>
- 29 <http://freesound.org>
- 30 "Sample Pools" Creative Commons developer wiki.
http://wiki.creativecommons.org/Cghost/concepts/Sample_Pools
- 31 Lessig *REMIX* Lessig pg. 17
- 32 Hyde *The Gift* pg. 77
- 33 Celemony is tool by Melodyne. Home page:
<http://www.celemony.com/cms/>
- 34 Fake Steve Jobs "The music industry nobs have finally figured out what we're doing" July 4, 2007
<http://tinyurl.com/stone-fsj-nobs>
- 35 In music production a "stem" is the isolated recording of a single instrument.
- 36 Lessig *REMIX* pg. 151
- 37 ccMixer artist colab, in reply to a review of his remix "Beautiful People"
<http://ccmixter.org/reviews/colab/18824#54981>
- 38 I am embarrassed (yet oddly tickled) that when searching the Internet for the earliest use of this phrase in relation to posting music, the highest search results was a comment I made in

May 2003 <http://metatalk.metafilter.com/3244/#69986> I'm not saying I'm the first person to say it; that high ranking is due to Metafilter's juice, certainly not mine. Nonetheless, I stopped searching there.

39 Lessig *REMIX* Chapter 4.

40 "Contribution Patterns Among Active Wikipedians"

http://upload.wikimedia.org/wikipedia/wikimania2006/7/71/SA1_slides.pdf

41 Turns out Chuck Norris is *not* the president of France.

42 CC Wiki "NonCommercial" discussion page

<http://wiki.creativecommons.org/NonCommercial>

43 "Integration of Knowledge, Semantics and Digital Media Technology, 2005. EWIMT 2005. The 2nd European Workshop"

<http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=33311&isYear=2005>

44 As of December 28th, 2008 and excluding those related to remix contests.

45 Victor Stone - Virtual Turntable blog "My (Throwing) Muse" Blog entry in which I discuss a kind of mismatch between a remixer and singer that may be attributed to clashes in the harmonics of a singer's voice and bedding the remixer typically users.

<http://virtualturntable.org/my-throwing-muse-kristin>

46 Lessig *REMIX* Chapter 7

47 Lessig *REMIX* pg. 226

48 Stone - Creative Commons blog "Open Music Comes of Age" October 5, 2006

<http://creativecommons.org/weblog/entry/6089>

49 Roughly translated from the Hungarian: "May a rabid goat ransack your house if it isn't so."

50 Lessig *REMIX* pg. 221

51 CC Wiki "CCPlus"

<http://wiki.creativecommons.org/CCPlus>

52 Think Nguyen "Science Commons: Material Transfer Agreement Project" 2007 Pg. 142

<http://ideas.repec.org/a/tpr/inntgg/v2y2007i3p137-143.html>

53 Toru Iiyoshi, M. S. Vijay Kumar, John Seely Brown "Opening Up Education: The Collective Advancement of Education Through Open Technology" MIT Press 2008

Quotation from an essay co-authored by ccMixter founder Neeru Pahria, pg. 95

<http://books.google.com/books?id=gWrHFmAYX5EC>

54 James Boyle *The Public Domain: Enclosing the Commons of the Mind* 2008 Pg. 184

55 Stone - Virtual Turntable blog "My New Therapy: A Shiny New Martin" December 22, 2005

<http://virtualturntable.org/my-new-therapy-a-new-shiny-martin>