2 YES WE CAN

Interviews with Jimmy Wales, Craig Newmark, Tim Westergren, Blixa Bargeld with Erin Zhu, Airside, and Roger McNamee
As technology advances, it reverses the characteristics of every situation again and again. The age of automation is going to be the age of “do it yourself.”

Marshall McLuhan, 1911–1980, Canadian educator, philosopher, and scholar

YES, WE CAN DO IT OURSELVES! The tools for creating media almost always seem to be as close as your personal computer, given the appropriate software and a bit of additional gear. Take this book, for example. I was able to create nearly all of it with just my laptop. I used a word-processing program to write it, a page-layout program to design it, and a photo-editing program to manipulate the images, with the ever-present Internet to help me find content and check facts. Did you look at the DVD? That was created on the same laptop, using a video-editing program, a sound-editing program, and DVD-mastering software. And how about the Web site, Designing-media.com? I built it with some help from a colleague at IDEO, but again with software available on a laptop. The means of reproducing the book and DVD are still traditional (with thanks to the MIT Press) and the distribution is physical (with organizations for manufacturing and distribution that require expensive infrastructure), but the means of creation are available to anyone who has learned to use a computer.

In this chapter we meet people who have developed the yes-we-can attitude in extreme, developing innovations in media that rely on contributions from the crowd. First up is Jimmy Wales, the founder of Wikipedia, who has harnessed voluntary contributions from anyone with sufficient interest and time to create the world’s largest encyclopedia. He has evolved a hierarchical structure that benefits from the combination of automation and human judgment; the software is enhanced through the emergence of social rules and norms for interaction, which bring members of the community together to do something enjoyable and productive.
The second interview is with Craig Newmark, the founder of Craigslist, who is so disarmingly modest that he makes his incredible success seem almost accidental. Newmark has developed a culture of trust between employees, volunteers, and end users. Craigslist thrives due to excellent customer service, moderation for discussion boards, removal of offensive material, placement of ads into the appropriate categories, and policing behavior and ethics.

Next we turn to music. Tim Westergren, the founder of Pandora Internet Radio and the inventor of the Music Genome Project, explains his two goals: (1) to build the world’s largest radio station, with hundreds of millions of people listening to broadcasts that are personalized specifically for them; and (2) to build a musician’s middle class, so that musicians can find their audience.

From methods of distribution we move to creation of the art form itself with Blixa Bargeld, who has been leading an innovative, Berlin-based industrial rock band for decades. In the interview with Blixa and his wife, Erin Zhu, we discover that a band like his can bypass the traditional music business, developing a self-supporting economic model based on subscriptions from fans and enabled by the Internet.

Alex Maclean, Fred Deakin, and Nat Hunter, of London-based Airside, have developed a fresh approach to designing media, working as animators, movie makers, graphic designers, illustrators, interactive digital media designers, and musicians. They like to develop strategic concepts and solutions, keeping the results engaging and lighthearted.

Roger McNamee is both a musician and a venture capitalist. With inventiveness and abundant business acumen, he has created a unique new combination of media to promote music and musicians. His band Moonalice was formed in 2007 with a yes-we-can attitude to promotion and financial support. In his interview, Roger describes his ingenious use of multiple media to finance the band while allowing free access to the music for those who don’t want to pay. Roger feels that accessible tools for creating music are beneficial to everybody, much more fun, and entertaining to use—creating it in his estimation is even better than consuming it.
JIMMY WALES

Jimmy is an American Internet entrepreneur, best known to the public for his role in the founding of Wikipedia in 2001, now the world’s largest encyclopedia. With degrees in finance, Jimmy worked in futures and options until, enamored with the possibilities inherent in the new technologies of the web, he shifted his career to Internet entrepreneurship. Jimmy has created a phenomenon in Web development that aims to facilitate creativity, collaboration, and sharing among users. Indeed, Wikipedia was one of the primary drivers of several related internet trends. And as Wikipedia’s public profile grew, Jimmy became a spokesman of the Web 2.0 revolution. He founded and now serves on the board of trustees of the Wikimedia Foundation, the nonprofit charitable organization that operates Wikipedia, as the board-appointed “community founder.” In 2004, along with fellow Wikimedia trustee Angela Beesley, he founded Wikia, with the aim of building “the rest of the library.” In 2006 Time magazine listed Jimmy Wales as one of the world’s most influential people.
I was surprised that the first email that I received from Jimmy Wales was signed “Jimbo,” which struck me as an intimate name that might be reserved for family members and longtime friends, but it turned out to be his online nickname. I had been trying to set up an interview with him for some time, corresponding with the people who managed his overfull schedule, and I expected a more business-oriented manner. I arranged for him to come to IDEO San Francisco for the interview, but during the afternoon before the appointment I received this terse unsigned message directly from him, “I need to be at the Wikia office … I’m under extreme time pressure.” When we had set up the video-recording gear the following morning, we waited for some time while Jimmy talked energetically to people in the open offices of Wikia. The dichotomy between this intensity and informal familiarity continued, as once he was seated in front of the cameras, he talked in a gentle and friendly manner about his philosophy, seeming to have all the time in the world, until an hour later, when he looked at his watch and rushed off to another appointment.
KING JIMBO

You can edit Wikipedia. You don’t even have to log in. You don’t even need a user account. You see an article, click on “edit,” change it, and save. It’s recorded as your IP number, so that you automatically become a registered user. If you log in, you get an account, and you instantly have a talk page where people can discuss things with you. Your identity develops over time. You don’t have to use your real name. Users can create a pseudo-identity, but their reputations will be cultivated around their work and behavior. IP numbers identify people, but contributions identify them uniquely.

The next level of participation involves assistance with quality control; in other words, working as an administrator. Administrators, at least in the English-language Wikipedia, are elected from within the community by an open-ended voting process. If 80 percent of the other administrators vote for you, you are elected; with 70 percent or less you won’t make it. Between 70 percent and 80 percent the “closing admin” will study it a bit more, gauge the sense of the discussion, and make a judgment call. Administrators can protect pages and block people or IP numbers from editing, but these actions are visible to everyone, recorded in the open block log. Administrators who abuse their power will soon be “de-adminned.”

The next level in the hierarchy is the arbitration committee, whose members are chosen once a year with an open vote of administrators, so that everyone can see how everyone else voted. The last step is that Jimmy Wales personally appoints people based on the results of the election. He explains this monarchist approach:

It’s a little strange for the wiki environment that I have this final veto power over who makes it onto the arbitration committee, but the arbitration committee itself has been
extremely supportive of this idea. They are quite staunchly monarchist, in the British sense. No one in Wikipedia wants a despot or an uncontrolled monarch, but the idea of constitutional monarchy actually suits us very well. And I think it's kind of interesting. Americans find it a little disconcerting compared to the Brits, who actually get some of the ideas of Wikipedia governance a little better. In the United States we tend to think of the Constitution written down and it's very formal, whereas the idea of constitutional law in the UK is much more open-ended. Lots of things are simply done by convention with no actual rules.

There's lots of things that in theory I could do but don't do and wouldn't do. The arbitration committee likes this, because we can be very experimental in our design of social institutions, and because there's a certain level of trust that I'm not insane. It allows us to be more democratic without being concerned that it's going to go haywire. My preference is, and we're moving in this direction, that over the years, like an accelerated history of the British monarchy, I will just be there to wave at parades and be symbolic.

I consider my work to be in many ways primarily about what I call "community design." And what I mean by that is the design of the software, but then beyond the software the social rules and norms for interaction that let a community come together and do something that they find productive, enjoyable.

In the early days, when I first set up Wikipedia, I really thought we were going to have to lock everything down very quickly. I was thinking at that point really in terms of just being a slightly different software tool to do something in the traditional way, but because the traditional project that I had before to create a free encyclopedia had failed, I had this desire to say, "Look, I know what went wrong the first time, it was top-down. It was controlled. It was difficult for people to get involved. Now we have this other approach. I'm going to stay as open as we can for as long as we possibly can. Let's just try this." And so, I would get up in the morning convinced that everything was going to be all just curse words. Usually it wasn't. Occasionally you would find somebody had done something and then you would just revert it.

Very quickly I changed the software to keep all of the old versions because I realized that eliminates a major vulnerability. When the software was first installed, I think it kept five revisions. So people sometimes ask, "What was the first article in Wikipedia?" and nobody knows because for the first few weeks or so we only kept the first five revisions, so the very earliest history got lost. I know what the first words were. I typed, "Hello World," which is an old thing programmers always do.

Society simply wouldn't work if we were concerned about getting stabbed everywhere we went. We don't design societies like that, except for the airports, which is one reason that airports are such dreadful places. On a day-to-day basis we drive down the street with all kinds of maniacs driving around, and we eat in restaurants with knives. We assume people aren't going to stab us, and we're usually correct. The people online are the same ones you see walking down the street. They're all online, and most of them are basically nice people with friends and family—and the ability to restrain themselves around silverware.
When we think about designing any kind of space for social interaction, we need this kind of analogy to say, “Look, basically we need to go under the assumption that most people are good.” We don’t want to have systems that are designed around the worst people. At the same time we have to understand that we need institutions as a society to deal with those problems. And so in terms of people getting stabbed in restaurants, we have ambulances and hospitals. We have the police to come and take the bad guy away. With the hospitals we try to fix the problem as quickly as we can. Obviously, when you’re talking about getting stabbed in a restaurant, which does occasionally happen, you can’t always fix things. Real damage does happen.

Fortunately, online, in most cases you actually can fix things. You can’t stab people online. You can say mean things and those things can be deleted. Those things can be gotten rid of. That person can be excluded. There actually are solutions that are pretty straightforward in most cases.

The first design principle of Wikipedia is to keep the software open to let the users do things their own way. Don’t decide how to do things on behalf of people. Let the software be flexible enough that the people who are using it can actually develop their own social norms around whatever it is they are doing.

Next in importance is to keep all changes visible, both at the content level, with all the versions of any entry remembered and accessible, and the administrative level, with open editing and voting structures. Watch lists help the administrators do their job; most active administrators have the option set to monitor by means of a watch list anything they touch or edit. When they log in they just click on their watch list and they see what’s changed since they were there last. It’s also possible to track versions, or “ diffs.” When you go to the history of any article, all the old versions are there. Of course, it would be tedious to reread every article every time you wanted to check on it. Instead, the changes are highlighted, with yellow for the paragraphs and red for the words that have changed. It makes it easy to see what other people are doing.

The provision of space for comments and discussion is limited to the wiki pages themselves; separate message boards aren’t necessary. This may seem a little ponderous to new users, when they click on “edit” and everybody else’s text is there—and they’re not supposed to touch it? The advantage is that troublemakers are automatically under control:

Right off the bat it avoids the problem of the one troll who comes in to stir up trouble. Maybe we’re editing an article about the history of the chocolate bar, and somebody comes on the discussion page and they’re not happy with the way it’s going, so all of a sudden they launch into a complete vicious, angry diatribe involving Nazis and Hitler and calling people names, and so on. Well, what can happen at that point is then the very next person that comes along can simply remove that rant and say, “Rant removed.” It’s still in the history, you can still go look at it if you really want to, but it’s not appropriate. The philosophy is that we don’t attack each other personally. If you have a problem with the article, let’s discuss that, but don’t start tearing into other people.
We’re just going to remove that. And then the next person who comes, well, if they really want to they can go and dig and see this angry attack, but more likely they’re just going to see that something got removed and keep reading.

Another kind of example is that you might say, “I can’t remember where it was, but I remember where that was.” And they go find that link and they actually change your statement; parenthetically they say, “Here, click here.” Well, they’ve actually edited your comment, but they did so in a helpful, useful way that you won’t mind. You’ll say, “Oh, thank you. That’s what I was talking about.” Maybe they leave you a note on your talk page saying they found the discussion you were talking about. I don’t remember that discussion so I linked to it there. It’s so flexible and easy for people to do as they wish that it enables all kinds of good behavior. It also enables bad behavior, but that just doesn’t happen that often.

A Wiki is an online social community where fans create content about their passions, aggregating a vast amount of information on any given topic. The idea was invented in 1995 by Ward Cunningham, but from then until the launch of Wikipedia in 2001, wikis remained a small, underground phenomena on the Web. In the early days, developers and users were really scared of vandalism, so they tried to hide themselves from the search engines. Few people promoted wikis because they were worried that malicious characters might discover and destroy them. In essence, wikis, despite their utility, were regarded as both vulnerable and fragile—a rather inauspicious combination. Jimmy’s approach addressed these weaknesses and kept a complete record (a history) of changes.

For all of its original (and persistent) challenges, Wikipedia is remarkably accurate and considerably more up-to-date than any printed reference book. Its history is driven by the interests of the hardcore Internet crowd, so there tends to be a bias toward geek culture topics. As the size of Wikipedia has grown, though, so has the breadth of its content. It’s no longer just for geeks—it’s about everything. You might still be tempted to poke fun at Wikipedia for having a longer entry on a video game character than on a battle in World War II, but you can also look at Encyclopædia Britannica and find a longer entry on an obscure Elizabethan poet than on Sir Paul McCartney. Wikipedia is an elitist meritocracy reflecting the culture of computer engineering and pop culture writ large. Yet the breadth and depth of the site’s content continues to grow, at pace with the number and diversity of Wikipedia contributors.

The experience from Wikipedia comes in to say, “Look, we actually can build large-scale social processes that allow lots and lots of people to come and work together.” We know there are some troublemakers but let’s not design around them. We can start thinking about transparency and openness. How is that process done? How can the public have an impact on that process? How can we complain about it? How can we fix it if it’s broken?

Jimmy Wales has also helped communities of people to come together by developing Wikia, which provides a collaborative publishing platform that enables communities to discover, create and share content on any topic in any language. He founded Wikia in 2004 with Angela Beesley as a for-profit business funded by advertising, operating Open Source MediaWiki software and licensing all of its content under Creative Commons. People come together as communities and create Wikia sites to share knowledge and enthusiasm about subjects ranging from video games, TV shows and movies to food, fashion, and environmental sustainability. With over four million pages of content and 130,000 enthusiast communities, Wikia attracts more than 30 million global unique visitors per month. Examples include “Children’s Books Wiki,” “Family History and Geneology Wiki,” and “World of Warcraft,” about which Jimmy says:

World of Warcraft wiki, for example, has over 80,000 articles all about this online video game. It’s not a charity, and it wouldn’t even occur to the people working there to think that it’s a charity, but they enjoy it. It’s a part of
what they do online. It’s a part of what they have fun doing; they’re fanatically interested in this topic, they like to share knowledge with others, and they like to help the community of other players.

People edit Wikipedia because it’s interesting, they meet other people to either make friends or enemies with, and they enjoy the bond of sharing and comparing. The real question about community design is, “What is it that people are going to be doing that they’ll find fun, and how do we make it interesting?”

IN THE NEXT INTERVIEW, CRAIG NEWMARK, the founder of Craigslist, describes his approach to developing his amazingly successful and ubiquitous site for want ads and for-sale postings. Craig believes that the community that he has created has a lot in common with Wikipedia and admires the achievements of Jimmy Wales. He sees similarities in philosophy, community spirit, technologies, and internal architecture.
CRAIG NEWMARK

Who hasn’t heard of Craigslist, the Web site that has dramatically altered the classified advertising universe with its largely free want ads and for-sale postings? Craig Newmark started it in San Francisco in 1994. Out of school, he landed a job at IBM and worked in the Detroit branch that served General Motors. When he later joined Schwab, his new job allowed him to move San Francisco, but he soon decided that he could have more fun, make more money, and take more time off working as a contractor, writing a mix of Perl and Java code. He started Craigslist as a “cc” list to a few friends about cool arts and technology events in San Francisco, like Joe’s Digital Diner or the Anon Salon, and it took off from there. He started a pattern then of listening to suggestions, doing something about them, then listening more. He is a vocal advocate of keeping the Internet free and using it for investigative journalism. He lives in San Francisco’s Cole Valley, where he blogs and tweets, and attends to his customer-service job at Craigslist, mostly dealing with spammers and scammers.
Craig invited us to interview him at his house in San Francisco, idyllically located at the edge of a magnificent eucalyptus grove. Craig works at his computer in front of a large window so that he can glance up at the trees rustling gently in the breeze and filling the air with scent for respite. Unfortunately, on the day of the interview Craig’s girlfriend had her purse stolen, so there was a tense atmosphere in the house as they tried to deal with police reports while answering my questions. Perhaps the tension made Craig even more stoic than normal, but he talked in an even and succinct manner, emanating rationality in the face of the misadventure. He would never admit to having designed anything, insisting that his success is due only to persistent problem-solving as he built solutions, which evolved from an initial desire to provide information for his friends.
KEEP IT SIMPLE!

At the end of 2008, Craigslist operated in 55 countries and 570 cities, with approximately 13 billion pages per month and around 50 million unique visitors. The growth had come as more and more communities and countries added communications technologies and people welcomed the offering. The simple design of the site has kept it fast, and the use of text in columns allows it to scale very easily across platforms, working well on Smartphones, PDAs, and personal computers.

Originally, Craig started compiling his list of local favorites for a few friends, but word spread fast. More and more people started asking to receive his updates; they wanted to be on this list and to make suggestions for additions—the inclusion of local events, items for sale, ride shares, all sorts of things. In the middle of 1995, the “cc” list mechanism broke, overloaded at 240 names, so he wrote a program to handle more people.

Craig was planning to call it SF Events, but his friends kept telling him that it was already called Craigslist, so he found that he had accidentally created a brand. He continued running it himself as it kept growing, slowly but surely, over the next few years. When a task threatened to take too much time out of his day, he would write some software to automate it. At the end of 1997 he hit a million pages per month and soon after was approached by Microsoft Sidewalk with the suggestion that he run banner ads for them, which would have generated enough income for him to live on. He said no since the ads are “often kind of dumb and slow a site down.”

He agreed to bring in some volunteers to help deal with the growth but found it difficult to provide them with sufficient guidance while continuing to shoulder the bulk of the workload. So in late 1998 and
early 1999 he made Craigslist into a real company. In 2000 he hired Jim Buckmaster. He soon realized that he had joined forces with an excellent manager, so he delegated the leadership of the company to Jim.

Craig’s secret has been a consistent process of listening to customers, designing solutions to address the problems that he hears, testing his solutions, and then listening again. His modesty is deeply genuine. He gives himself little credit for his amazing success, but you can tell when you meet him that he is determined, rigorous, and focused and equipped with simple but strong values and beliefs that keep him always moving forward.

The pattern from the very beginning of Craigslist was doing something, listening to feedback, acting on that feedback, and then listening some more. That pattern continues to this day under Jim Buckmaster. There’s been really very little vision on my part, really none. It’s a matter of actually listening. Jim runs the company in a much more businesslike and serious way, but the pattern remains: listening to people, doing something about it. We’ve always moved in small increments and that kind of growth is sustainable, and your community, if you listen to feedback, keeps you on course. Fortunately, I knew from the beginning that I have no design skills but knew how to keep things simple. And we’ve maintained the simplicity over the years.

The people who run the company are paid employees, but there are also volunteers who help us understand how the site’s going—patterns of abuse, that kind of thing. Depending on the context, you have to balance what the community is saying with the need to make an authoritative decision, particularly if there are legal matters involved.

Jimmy Wales does a great job with Wikipedia. Our model isn’t that different, and most of what happens is based on community feedback and guidelines. Wikipedia and Craigslist share the spirit of the community driving things, and for that matter we share some of the same technologies. Our internal architectures aren’t a lot different. There’s more in common than you’d imagine, and they do a great job.

Now and then, there are tough situations, say when people are bickering, and then someone just has to make a decision. Sometimes Craigslist has to act as an arbiter. Just as in normal society, sometimes the courts have to step in. But I don’t want to take too much credit for that. I act as a customer service rep, and sometimes I’ll have to defer the decisions to my boss who runs customer service. It seems to be working out pretty well, but if we make errors, people may wind up looking for an alternative.

Customer service includes moderating discussion boards, removing racist material, moving ads into the appropriate category, and managing cases where people are posting just to pick a fight to get attention. Dubious ethics need policing, for example, when an apartment broker pretends to own a place to disguise the commission that will accrue when it is rented. Sometimes people flag items for customer service review in forums or email with a question. The strongest similarity to Wikipedia is that people rather than algorithms make the crucial customer-service judgments so that the sense of empowerment flows back and forth between administrators and the end users. Craig acknowledges imperfection:

It is not perfect. Democracy is a lousy form of government; it’s just better than anything else we’ve tried. Our culture of trust is based on our values, like treating people the way you want to be treated. At first it was implicit rather than conscious, but we’ve come to recognize it. That was true from the very beginning. It was not a conscious action until recently, and we just took that attitude and practiced it, and then followed through more, and people saw that it was sincere on our part. It’s a matter of consistency and persistence. It just works, and works consistently, and that works for us.

On a typical day Craig works on customer service as soon as he gets up. After the early tasks are done he gets coffee and reads the New York Times; then he goes to the office down the street, works some more, has lunch; then more customer service. Depending on circumstances, he may meet some people, or go out for dinner, but when he gets home, he usually catches up with customer service before bed, to fix any urgent problems and to avoid a painful start to the next day. This
unpretentious lifestyle matches his humility and has allowed him to appoint the right people to lead the company.

For me, it's not a matter of modesty or humility—it's just a matter of being realistic, and that works for me. About twenty years ago at an IBM course we read an article about how people who are good at starting things are often pretty bad at continuing them, and that big lesson, which was a good one, actually stuck with me.

I do want to remind people that I don't feel there is anything altruistic or noble about Craigslist. We're just doing what feels right and that means we are doing well as a business by doing some good for people. It just feels right, and it's a successful business strategy. My basic design approach is to keep things simple, keep the site fast, and remember to treat people like you want to be treated, which means to provide good customer service, knowing that as imperfect humans there will always be lapses. But do what you can—take that seriously.

Craigslist will to grow incrementally as it adds more languages and locations, but its guiding philosophy will ensure careful enhancements of functionality and a focus on quality control, with implementation of better tools for fighting ad spammers and any new forms of exploitation that may emerge. The only source of revenue is paid job ads in select cities, with a charge of $75 per ad in the San Francisco Bay Area, and $25 per ad in eight other major cities in the United States. New York City has paid broker apartment listings for $10 per ad. There is a $5 charge per erotic services listing, but the site donates the revenue from this to charity, suggesting that the fees are intended to deter illicit activities by requiring posters to create information that could be used in legal proceedings. The company does not disclose financial or ownership information, but commentators have reported annual revenues above $100 million, with Craig believed to own the largest stake.

The most important technology developments for the business will be the increasing deployment of smart phones with Internet access.
As wireless infrastructure is a lot cheaper to deploy than wired, eventually almost everyone in the world will find it cost effective to get a good mobile device, on which the simple design of Craigslist will thrive; indeed, the site already has the third largest amount of traffic from mobile phones. Craig strikes an optimistic note:

Right now I think we’re living in a time of enormous change, where the way people get stuff done is changing, not in a small way, but everywhere. The Obama election is a manifestation of that, but we’re seeing a lot happening right now where people again are giving each other a break in unpredictable ways. I seem to have stumbled onto being a part of that. We’ll see much more as the Obama administration gets inaugurated and gains momentum.

For example, there seems to be a new generation of civic engagement, where people are rededicating themselves to service—national service as a job versus occasional volunteering. I think we’re seeing all this and in a big way.

TIM WESTERGREN, THE FOUNDER OF PANDORA Internet Radio, shares Craig Newmark’s ideals of community service and civic engagement. Tim wants to create a middle class for the community of musicians and personalized radio for the music listener.
TIM WESTERGREN

In 2000 Tim founded Pandora, the personalized Internet radio service. Based on his Music Genome Project, Pandora selects songs and artists with similar musical qualities to examples that you choose and creates a “radio station” just for you. Tim loved music as a little boy, starting off playing jazz and blues piano, gaining skills with lots of different instruments, and learning more about theory and composition in college. At Stanford University he became more interested in the intersection of music and computers, but after graduation he spent about ten years as a performer, playing shows and touring. He became interested in composing for film and developed a niche in Hollywood by building on his understanding of how the structure of music matches the needs of films. When he realized that this kind of music profiling could be turned into a taxonomy of musical attributes, he began working on the Music Genome Project, which led to his starting a company that eventually became Pandora.
Tim was very busy at the beginning of 2009, what with promoting the company and trying to sort out difficult licensing agreements for the music. It took several canceled appointments before we found a date and time that stuck. It wasn’t far to go, as the Pandora headquarters is in downtown Oakland, where the office space is less expensive than on the San Francisco side of the Bay Bridge. The office space has an open plan, except for an acoustically controlled music performance room, so we set up the cameras to record Tim with the music analysts working at desks in the background. Tim is charming, talking with an engaging openness and enthusiasm that is infectious.
Tim articulates an ambitious and idealistic vision for Pandora:

I think about the vision for the company in two ways. One is to build the world’s largest radio station—to have hundreds of millions of people listening to Pandora all over the world and connecting cross-culturally, discovering music from all over the place, communicating with other listeners, and completely redefining radio from the ground up.

The flip side of that—which is very near and dear to me—is to build the musician’s middle class, so that you can quit your day job when your song gets added to Pandora, because you get unleashed in a targeted way to this enormous audience of people who like your kind of music and they become your patrons. That’s what I hope for!

One great benefit of the digital revolution for musicians is that it makes complex recording affordable. It empowers individuals to create and record music that could previously only be performed by large ensembles. It allows everyone to think, “Yes, I can!” With a decent computer and a little bit of outboard gear, you can get into heavy orchestration, arranging, layering, and multitrack recording. Tim has harnessed this creative explosion. In Pandora he has created a new promotional tour for these emerging musicians, while providing a new medium for personalized listening for the rest of us.

The first phase of the Web gave people access to an unlimited inventory of music. You can go to a virtual record store that has six million songs or a video site that has hundreds of thousands of independently produced videos. The problem is finding what you like within that big collection. Broadcast radio can’t curate that experience for you on a
personal level because it has to serve and retain an audience that is a viable size for advertisers. Pandora uses the Music Genome to help you find just the stuff that you want.

If you are an independent content producer, you now have access to the tools to make your music, but you can’t find your audience. The state of the art for recommendations has been “collaborative filtering,” as practiced so effectively by Amazon (“People who like this also like this”), but that doesn’t solve the problem for somebody who isn’t known. If you are an independent band on a site that relies on historical data, you might as well be a bottle of shampoo since nobody knows you. Nobody's already liked you, or bought you, or reviewed you, or done what is needed to pop you up into that kind of virtuous cycle of “people who like … also like … .”

That’s where the story behind Pandora starts. Tim had too many years of the nomadic life as a performer and turned his hand to composing music for films. He was interested in the connection between the digital realm, the demands of the film’s storyline, and the qualities of the music. He also liked the problem-solving aspects of designing the music to fit the needs of film and television.

It’s a very intentional form of composing. You have an objective in mind, which is “to make the door slam scary,” or “make the romantic scene more compelling.” You think about song structure, and sounds, and instruments, and harmonies in a very applied way. You also spend a lot of time trying to figure out somebody else’s musical taste. Film composers are good at quickly deducing or gleaning the taste of a director, or producer, or whoever is calling the shots. You get pretty good at music profiling, taste profiling. I developed that skill as a film composer and found myself just thinking about music, and taste in terms of these musicological attributes. I was doing it all the time, and it started to crystallize into this idea of a taxonomy.

There was a moment when the idea of the genome came to me. I was reading an article about a musician named Aimee Mann. She was a talented artist who had a reasonably sized following but not large enough to warrant investment from a big record label, so she was sort of stuck in this no-man’s-land. Her records weren’t being released, and she was frustrated by that. And it occurred to me that what’s missing is a way to cost effectively connect her with folks who we know like her music, her kind of music. The Web had developed quite a bit of energy in the music space that was ostensibly a perfect mechanism for doing that and this taxonomy that I had in my head. I immediately thought, “Wow, if I could take this process that I’ve developed to profile music taste, apply it to her music, and use that to make people aware of a record she was going to make, it could solve the problem that she was having.”

I had also spent many years among independent artists, so I’d seen a sea of incredibly talented musicians (who) were essentially invisible because they had no access to a big audience.
You name the art form—it's feast or famine. And so I was amply aware of all this great talent that was one decent promotional tool away from a great audience of patrons. Those ideas all came together as I was reading this article, and the idea of the taxonomy for the genome popped into my head.

Tim had never written down a structure for his analysis. He would play CDs to film directors to get their reaction. As they gave him their thumbs-up or thumbs-down, he would interpret their responses over the course of the interview, like the musical equivalent of a Myers-Briggs test. After his inspiration from the article about Aimee Mann, he sat down to record it in writing and it just came pouring out since the information was already in his head.

He set about building a taxonomy of musical attributes for every aspect of songs, including melody, harmony, rhythm, tempo, instrumentation, vocal performance, vocal harmony, and even softer values like feel. He ended up with four hundred attributes. Each one of those musical dimensions was broken down into basic building blocks and positioned on a ten-point scale. For example, there are more than twenty-five attributes dedicated to understanding the sound of the voice, so that you can describe any voice, from a low, gravelly male vocal to pristine, soprano operatic voice. Tim analyzes Aimee Mann's music:

A lot of her music is acoustic guitar based, with nylon strings or sometimes steel. She has a high alto voice that's fairly airy and pretty nasal too. She definitely has a nasal quality to her singing (the nasalmess of the sounds is an attribute in the genome), with almost no vibrato. She is very melody-oriented, so if you think about her form and structure, she does have very identifiable, strong melodies. Her instrumentation is very sparse, so if you look at the supporting instruments, they tend to be on the thin side. The structure is fairly typically pop, you know, A-B-A kind of songwriting. Rhythm and tempo are fairly straightforward, occasionally three-quarter but mostly in four—moderate stuff. If you step back and look at her music in the abstract, what is it really about? It's lyric- and melody-focused. She's got a distinctive sound as a singer, but she's not a virtuoso singer. It's not about the vocal acrobatics. It's really about delivering a melody.

Tim realized that his experience in writing music to fit the needs of film had taught him enough about the structure to allow him to describe the music of Aimee Mann as a set of attributes, and that this analysis could help her find the audience that would like her work.

MUSIC GENOME PROJECT

Before he started building the genome, Tim had been watching the explosion of entrepreneurship on the Web, a good portion of it in music. He watched musicians gain access to the tools they needed and still remain invisible—they were part of a huge, almost dizzying virtual inventory; they were needles in a haystack. He shared his ideas with John Kraft, a friend from college who had already launched and sold a company by that time. John said, "Let's turn this into a business," so they wrote a business plan and started looking for venture financing.

The original idea behind the company was to build a recommendation engine to allow clients to say, "I have a customer who likes this song. What else would he or she like?" They didn't need to understand the idea of the genome; they just had a query for the engine. There were lots of online music Web sites that needed help navigating the catalog of musicians, so Tim thought, "Wow, we'll license it to all these people."
Will Glaser joined them as the third founder, bringing computer science and mathematical expertise to the group.

Another early contributor was a classically trained musician and a musicology PhD from Stanford by the name of Nolan Gasser. He had a rigorous academic background. Gasser helped to make the genome more polished, moving from Tim’s informal and intuitive approach to something with a stronger theoretical framework. There is no computerized way to capture the information, so musicians, who listen to the songs and assign values to the attributes, enter it manually. An important aspect of the whole endeavor is language, as words are needed to describe attributes, and the whole team of analysts needs to understand and interpret the words consistently.

Their timing was unfortunate. They launched the company at the beginning of 2000, months prior to the dot-com crash. Internet optimism plummeted, leading to a long and painful period of trying to survive. They took the opportunity to improve and improvise their business. They searched for someone willing to pay something for the technology, but at the same time they continued chipping away at the genome, adding songs to it, growing the database even though they hadn’t quite figured out how to make a revenue-generating business out of it. More than forty people in the company worked without salary for nearly three years, which had the surprising side effect of imbuing everyone with a strong sense of ownership and desire to turn the sacrifice into something. At last, in 2004, Tim managed to raise the first large round of investment, outfitting Pandora with a decent reservoir of cash as well as the great piece of intellectual property that he and his colleagues had spent many years building.

Soon after the investment, Tim hired Joe Kennedy as CEO. His experience was in consumer marketing. “Radio is an interesting category. It’s much bigger than retail!” he said. Lo and behold, the genome was perfectly suited for the task of creating and manipulating playlists. Under Kennedy’s guidance, they left the business model of the subscription-based recommendation engine and shifted entirely to a consumer-facing radio application. Pandora Internet Radio was born:

“Radio” is shorthand for something that’s close to what we do, even if there are substantial differences. It’s such a well-understood word, so it’s a kind of shortcut for us. The principal
difference is that radio has historically been a broadcast medium, with one station streamed to many people. The Web offers you the ability to do unicasting, where you stream a single channel to one, or two, or three people. It’s also two-way. Listeners can give stations direct feedback, where broadcast is just one-way without feedback. I mean, you can pick up the phone and call a DJ, but that’s not an effective personalization tool. On the Web you can react directly to what you’re listening to, so it offers the ability to personalize.

The thumbs-up/thumbs-down concept is designed for feedback, inspired by the analogy of a conversation between a film composer and a director. It’s not enough for Pandora to know that you like a song or an artist. To really be good at personalizing playlists for you, they have to know what you like about that song. Two people might both like Elvis Costello, but that doesn’t necessarily mean that they have the same musical taste. One might be focused on lyrics and the other on musicianship, or the sound of the singer. Pandora’s secret is to be really good at suggesting the next piece without knowing anything about you, without you having purchased anything beforehand. The genome can take the most independent of bands and know exactly where to position them relative to other artists and performers and play pieces for you that have the musical attributes that match your initial choice. Then you can refine the choices by voting with the thumbs-up or -down interaction.

**VIABILITY?**

There was no obvious way to create a viable business based on the Music Genome Project. Tim and his colleagues launched Pandora Internet Radio as a subscription service in the fall of 2005, thinking that people would be willing to pay $3 a month for radio, but nobody signed up. This forced them to relaunch for free, which was a risky step—they had seen other people have problems with monetizing an online music stream, and they didn’t know how to attract advertisers. People listen to music, so there is no obvious way to provide visual advertising, which is still the bread and butter of advertising money online. Salvation came from the combination of personalization and interactivity.

After we launched, we learned that because of Pandora’s personalization capabilities, it causes people to interact with it a lot. You get rewarded for going in and thumbing songs, engaging with the listening. And as a result people come back steadily, about six times an hour, to do something: whether it’s to create a new station, thumb a song, skip a song, add a new artist, or find out about an artist they’ve heard but don’t know. Seventy percent of our collection is independent, so there is a lot of discovery. That drives engagement, and once we had that, the equation became pretty simple. You’ve got these advertising impressions and opportunities.

You’ve got to sell enough of them at a high enough price to make the business work, and that’s all about building a great sales team. There’s a lot of education involved. The first year was predominantly about introducing the company and the product to advertisers. You’re talking to advertising agencies and clients who are used to buying terrestrial audio advertising, and you have to explain to them the benefits of Web radio that don’t exist in terrestrial. For example, you have the ability to target because you know who each listener is, and because you’re connected you can offer someone the opportunity to do something, like clicking on an ad.

We sell a ton of music. We’re one of the top affiliates, if not the top affiliate on both Amazon and iTunes, but it’s not a big part of the economics of our business as it’s a very thin-margin, low-per-unit-transaction business.

Pandora operates under a statutory license, which limits them to not more than four songs by a single artist in a three-hour period, no pre-announcement of songs, and allows the listener no more than six skips an hour. The limitations are designed to make sure that they really are radio; if it gets too interactive and close to “music on demand,” they no longer qualify for the license. Tim is optimistic about the outlook:

Advertisers are becoming a lot more discerning and demanding about the results for their money, for their campaigns, but Pandora can deliver on those. We’re doing really well, year on year right now [interviewed in February 2009], and I think
it's because there's a bit of a flight to quality. Even though it's harder over all, the money is trying to find the sites whose advertising products really work.

When you can get into your car and plug in an iPhone and have Pandora streaming personalized radio to you, there's really no reason for you to go back to a broadcast music station because it doesn't play music you like. It can't. It's got to please a half million people simultaneously.

Pandora is particularly attractive in social situations. If you are entertaining and you want to choose a mood for the moment, or you know that your visitors like a particular kind of music, you can select one of your stations, or create a new one on your smart phone or computer and plug it into your sound system. You can then leave it unattended as you look after your visitors, feeling confident that the music will continue in the same vein. This advantage does not help the viability of the advertising model, though, as that depends on your paying attention to the source, returning to your Pandora station to see who composed or performed a piece that you are enjoying or to add a thumbs-up or -down.

**BLIXA BARGELD HAS BEEN LEADING** an innovative industrial rock band based in Berlin for decades and has accumulated a loyal and enthusiastic community of fans. Working in the traditional relationship to music publishers, he was never able to do more than cover the costs of production and even that level of support was steadily eroding. In the next interview, with Blixa and his wife, Erin Zhu, we learn how a band like his can bypass the traditional music business, developing a self-supporting economic model based on subscriptions from fans, enabled by the Internet.
Blixa Bargeld, former guitarist with Nick Cave and the Bad Seeds, leads an innovative industrial Goth-rock band called Einstürzende Neubauten, based in Berlin. Band members work with whatever readymade scrapheap objects they can find to act as musical instruments, hence the label *industrial* rock. Blixa’s wife, Erin Zhu, an American originally from China, has extensive experience working in Internet start-ups. Soon after their marriage, Erin was able to help the band develop an elaborate Web-based fan subscription experiment that bypasses the traditional music business, allowing them to release the album *Alles Wieder Offen* in 2007. They have continued to develop this model because without the sponsorship of a record company they rely on fans to donate subscriptions for exclusive editions of the CDs and DVDs plus privileged access to the musicians and the entire creative process.
I read a piece in the paper about the way that Blixa Bargeld and Einstürzende Neubauten were able to survive by fan subscription, thus avoiding the traditional perils of the music industry. I sent an email request for an interview to Blixa through the band’s Web site and was surprised to receive a reply from his wife, Erin Zhu, who pointed out that as the webmaster for the site she was responsible for most of the design decisions that they had made as they developed an Internet-based model of direct fan financing. She added a postscript at the end of her message, “This might be too much of a coincidence, but would you happen to have a beautiful architectural house in Woodside? If so, we were actually seated next to each other on a flight from London to SF a few years ago; you gave me your card and showed me some pictures of your house on your laptop.” What a coincidence! Blixa and Erin own a house on one of the steepest hills in San Francisco, so I was able to interview both of them together there when they were next in town.
The Fans Can Help!

In 2000 the record industry was consolidating, with labels being swallowed up by big production companies, which in turn were being bought by the investment arms of huge corporations. Pressure from the owners forced the less well-known musicians off the labels, even if they had a consistent record of creativity and a loyal fan base, as Einstürzende Neubauten did. This left Blixa and his band in limbo, wondering how to find the financing to produce another album. Erin suggested that they take advantage of the Internet and develop a new model for supporting and marketing themselves independently of any record company. Here is the story as Erin and Blixa told it to me:

Erin: I thought that I could use my internet experience to give them a different option, to use a website to go directly to their fans and have the fans help pay for the band to have the means for production. Before, the band would get an advance from the record label for the next album, they would take the advance, spend all the money on producing the album, and then the album would usually not recoup the advance, and that would be the end of the story.

Blixa: These albums would eventually recoup, but the band still wouldn’t see any money, because there were too many gangsters and corrupt record companies that we had contracts with. We had a contract with an English record company in the eighties, Some Bizzare, and we still haven’t seen any money from any of the records that we’ve done with this company.

We were all internet novices, but Erin gathered us around a table, put a laptop there and showed us what we could do. Everybody was skeptical, but we couldn’t get advances from a record company anymore; we couldn’t even pay the production
costs from what we could get from a company, so we really didn’t have any other options than trying something different.

**Erin:** I arrived at a 1,000-people break-even point by asking Blixa what he would expect to get as an advance from a record label, and he gave me an amount of $35,000, so I said, “Okay, how about we try to get a thousand people to each put in $35?” Unfortunately, that was not quite an accurate estimate of what it actually took, but that is what we started trying to do instead of normal marketing. We went to the existing fan lists and otherwise just word of mouth, and I think we hit the 1,000 in about four months.

We made it clear that they were paying not to just get something in return, but that they were really supporting the band through their contributions: you know, this was a way they were enabling the band to actually work and produce a next album, so there’s definitely an element of more than a commercial transaction happening.

**Blixa:** I think there were two sides to the basic idea. One was to take what is known since the beginning of book printing, to do a subscription to a book that will come out in the future; you buy something like the complete works of the Marquis de Sade in twelve volumes, you get them bound in leather, and you get one volume after another as they come out. The other side is that we have taken some things that are only possible through the use of the Internet, in connecting, broadcasting, and communicating with the supporters through a lot of different channels.

Normally you work in a recording studio, where everybody is trying to be separated from the rest of the world. It changed the process having webcams in the recording studio and people watching you, but we had to play with the ideas for a while to figure out how to use it to artistic advantage, and how to make a living for the band out of using different ways and means of production. We have done three of these periods over five years. Phase three ended last year, and for that we had 2,500 supporters.

We refined the models as we were going along. First was an album, and the second one ended up to be an album and a DVD only for the supporters. The third one ended up being an album for the supporters, a much smaller version for the public, a DVD for the supporters, and a monthly track that they could download. We would love to see it being a general solution for bands, or groups, or artists in similar situations. How do we end up having a phase four, which is rather going to be public, where that model is open to everybody? That’s what we are doing now.

**Erin:** The Web site didn’t change that much, but the offerings did. We started with the concept that the site was there not just to make this offering but to encourage interaction—that the supporters should be able to interact with the band and also among themselves as a self-selected group that have a
lot of common interests. So in that sense we had a very active forum on the Web site and a real-time chatroom where people could spend time. That took off much more than we expected. The chatroom was inhabited most of the time for purely social reasons that really had nothing to do with the band. There were people who would make a habit of just coming online each evening, their time. We had people from more than forty countries as supporters on the site.

There were some surprises. My original vision was for it to be an Internet-only project, as all the results were going to be digitally distributed. But as it turned out, a big piece of what we offered the supporters was intimacy—or at least access to the band at work in a way that they normally could not have—so that we did several webcasts a month, where the supporters could log in and actually see the band rehearsing or recording, with live chat going on simultaneously with the webcast.

**Blixa:** We would have their comments on our monitor. If they started talking about the weather, then you knew that whatever you were doing was not really interesting. But sometimes it went into crazy situations where they were singing along on the monitor; you could see it scrolling.

A moderator would sit at the live chat and tell us what they’re saying. In the same way that in old times I would play a rough mix of the piece of music to my friends, we were opening this up to our supporters too. I didn’t ask them what we should do, but they sometimes rescued pieces that we had already given up by saying, “We really like that!”

**Erin:** I think there will be a virtual library of music of everything that you could possibly digitize out there in the cloud. You can access it with your mobile device or any other device that can access the Internet. I suspect that the subscription way of paying for access—that you just pay a monthly or annual fee
YES WE CAN

for access to anything you want in that cloud—is probably the direction that things will go, because I think that’s what people want. At the same time I think that live performances are going to be a significant way for artists to make money. And “live” could be facilitated over the Internet to be able to reach places where it doesn’t make sense to actually go and play a concert.

Blúza: Do you know who was responsible for the whole idea of publishing music? It was Johann Strauss, the famous waltz composer. He just hated to see his compositions being played in every Weinstube in Vienna, so he started that whole publishing-rights thing.

THE INTERVIEW THAT FOLLOWS with the partners in Airside, a London-based creative design agency, demonstrates a fluent approach to using multiple media platforms. Fred Deakin is both a musician and a designer. He brings a rich combination of media to the support of his band Lemon Jelly. Nat Hunter thrives on developing algorithms and communication design; he relaxes by knitting “Stitches.” Alex Maclean combines a flair for animation with a whimsical wit.
AIRSIDE

Airside is a creative agency working in moving image, graphic design, illustration, and interactive digital media. They like to develop solutions that work across all media, such as TV commercials, Web sites, and billboards. Founded in 1998 by Alex Maclean, Fred Deakin, and Nat Hunter, Airside’s unique approach has won many awards, including recognition from D&AD, Bafta, Design Week, and Apple. The twenty people in the team have diverse backgrounds, from fine art to programming and knitting to English literature. They bring a whimsical wit to their designs and prove themselves masterful in the use of multiple media. Alex started in architecture and interior design and has moved into animation and Web design. Fred began his music and design career by creating promotional material and visuals for the clubs he was running; he still performs as half of the band Lemon Jelly. Nat moved into graphic design from a background in human computer interface design and psychology.
A visit to the Airside Web site is the best way to form an impression of the creativity and humor of their output. On the “About” page you find a Venn diagram, somewhat disguised as a flower, that shows the overlap in their work between digital design, graphic design, and multimedia productions. In spite of the varied backgrounds of the founders, there is no mistaking that they are a design firm.

I recorded my interview with them on a warm July afternoon in 2008 at their offices in London. They are located on three floors of an old brick row house on a busy street in Islington, so the interview was interrupted by vibrations in the structure whenever a heavy truck went by outside as well as a thunderstorm with dark clouds and dramatic lightning flashes, visible across the rooftops from the top floor. Before I left, I was flattered that Nat allowed me to adopt one of the “Stitches,” a small knitted individual named Griffin, with eyes askew and arms akimbo. Griffin accompanied me back to California, where he seems to enjoy the sunshine.
NAT HUNTER

Nat spends long hours in front of computer screens, writing code, designing Web sites and interfaces. After a while she feels worn down by the limited dimensionality of the virtual world, and she is always keeping an eye open for chances to surf fluently from writing code, to media work, to design for print, to participating in Fred’s music, or enjoying tangible physical experiences. The “Stitches” give this physical relief. They originated when Anne Brassier, a member of the Airside team since 2001, started knitting little creatures with slightly wonky personalities and Nat found them increasingly engaging. Eventually she realized that they had to be adopted, to go out into the real world and have real parents, and those parents had to communicate with one another. A Web site provided the vehicle for the adopters to form a community, and the tangibility of the hand-knitted dolls was a refreshing contrast to the computer screen. Nat explains the value.

I’m uber-digital, but I enjoy knitting a Stitch. After the knitting, you sew up the sides and add the arms and legs. Then you put the eyes in, and there’s this moment when it comes alive. Suddenly it’s so real that you start projecting onto it, “Oh, he’s a bit hungry.”

We send these Stitches out in the real world, and the new parents who look after them write us emails saying, “We’ve taken our Stitch on holiday” or “Our Stitch is training to be a DJ.” We’ve always been very interested in how you get people to relax, play, and have fun, whatever the medium is. These Stitches really seem to do the trick.

The contrast between whimsical little hand-knitted creatures and logical lines of code may be stark, but all three Airside partners have confident yes-we-can attitudes to operating in multiple media in the service of
good design. They have always tried to ignore the actual format of media, looking to find the best way to communicate with people in each design context. Nat remembers when they started.

The thing that united the three of us ten years ago was not thinking about the media but thinking about the experience of someone. Fred used to run clubs, so he'd think about the experience of someone walking in the door, what they were going to feel, how they were going to be, what was going to jolt them into having fun. I was a computer person, so I’d think about someone turning on a computer and having a bit of software, or Web site, and how they would know where they were going, what they were going to do. Alex was into virtual worlds through his architecture background, so he’d be thinking about virtual space, about walking into a real building and how it would feel.

We were never really interested in the detail of what that Web site or club was. It was more about how to make someone feel something; how to make someone react; how to create an emotional response. When it comes to actually designing in old media or new media, I personally don’t see that there’s any difference at all. It’s always been about problem solving and exploring and about having fun with it. Wherever media goes, we’ll go there and always be among the first to explore.

THE PET SHOP BOYS

Nat led a team to design the new Web site for the Pet Shop Boys in 2007, keeping the design clean with simple navigation to allow access to the large amount of material that the Boys have written and performed in their twenty-year career. She and the team were proud of the easy-to-use content management system, the uncluttered appearance, and the thumbnails that made browsing easy and attractive. The most difficult challenge was to find a way for them to easily update the content. Neil and Chris, the Pet Shop Boys, are very busy people, touring around the world almost constantly. Nat was worried that the content management system would never be used since by the time they got to their hotel room they’d be too tired to sit down in front of a computer, so she developed a way for them to use their camera phones.

We thought, “What are they going to do?” They’ve always got a phone in their hand and are waiting around. They are in airport lobbies for four hours at a time waiting for the next plane, so we developed an application to allow them to take a photo with the phone, add a bit of text, and send it directly to the site.

The site really is for the fans, for the “Pet Heads” as they call themselves, so you want the shortest possible communication between Neil and Chris and the fans. You want to get them as close together as possible. The great thing about the mobile is that it’s very intimate—they’ve got it on their holiday, they’ve got it at the weekend, they’ve got when they’re waiting for the plane—so the content is very personal, very different from sitting down at a computer to use the content management system. They might say: “Here I am on my holiday in my swimming trunks.” “Here I am with the band and waiting for the next plane.” “Oh, I went to this fantastic exhibition at the weekend. Look, here’s a picture of it.”

The design process starts right at the beginning, moving all the way back to ask why the brief exists in the first place? In this
The actual designing of the solution and then the programming is just problem solving. With all interaction, whatever the media that your interacting in, you’ve got to remove as many barriers as possible, because everyone is so busy, everyone’s got too much (going) on, so you’ve got to make it as easy and as intuitive as you can, whatever you’re trying to do.

FRED DEAKIN

Fred started the Lemon Jelly band with Nick Franglen. His skill as a designer made him interested in working across the conventional barriers between media. He led a team at Airside to design the packaging, create the advertising and visuals to support the performances, and come up with illustrations to replace conventional press photos. They also produced their own videos and designed the Web site for the band, so they were able to keep a consistent spirit across media.

Fred was determined to create lavish packaging for the Lemon Jelly releases, as he was painfully aware that CDs are an ephemeral medium, easily bypassed by digital downloads and storage devices, so he wanted to add value through the design of the presentation materials. For their third album, ‘64–’95, he developed a DVD with animation for every track to offer something more for the purchase price than the music alone. He believes that if you buy a record or CD in the real world, there should be depth to the communication and interaction, so that the packaging, imagery, and extra materials, such as a DVD or digital booklet, should make you feel that your £10 is well spent. By contrast, when you download a file from iTunes, at best you get a small square image that pops up in your iTunes window, and at worst you just get a lot of type.

It doesn’t seem impossible that a new media format for music will evolve that embraces the functionality of the digital age. Creating an album where every track was animated was an attempt to create a coherent piece where the whole album had a corresponding visual narrative. The online digital media that are evolving are just as interesting and “sticky” as real-world media, but for some reason record companies haven’t yet found a way to nail that particular problem. They normally use specialist talent, saying, “Okay, you want a video—who makes a good video?” or “I want a sleeve—who does great sleeves?”

We did the lot, right across the board, so there was a much more coherent feel to it all, and that was very satisfying. The imagery around Lemon Jelly is very reflective of the music, in that I’m doing stuff with a lot of repeating patterns, which is meant to echo the repetitive beats and loops. There are filters and plug-ins that you use for graphics programs that you can also use for making music. I was trying to create a visual language to fit with the way of composing that has evolved since people started making music with computers.

For us as a design company, it was a real chance to diversify. We did bags and T-shirts and played with the crossover between
real-world media and online media for live events. We had a very strong fan base already on the Lemon Jelly Web site, so we announced the concerts online. When people applied for tickets, we sent them tickets in the form of T-shirts, with the instruction to wear the T-shirt to get into the concert. On the way to the concert they would start to see each other on the tube, on the bus, or walking down the street; they’d spot other people with the same T-shirt and they’d know who was going to the concert.

When they got into the concert, they were all there wearing exactly the same T-shirt and thus they created a pattern. That’s one of the things I’m really into with the Lemon Jelly album—patterns of repetition, like you hear in the music. Halfway through the concert—there was a secret UV pattern that was also printed on the T-shirt—we turned on the UV light and the pattern appeared. Weeks, months, or years later, they might be wearing their T-shirt and see someone else who was at that concert, and say, “Oh my goodness! You’re wearing the Lemon Jelly T-shirt. You were at the concert!”

It’s a replication of what happens online, but it doesn’t have to only be virtual, it can be in the real world as well. You get that kind of community feel. You get links with strangers who you meet in a very different way. So it’s a similar kind of interactivity, but in the real world.

Fred is always looking for ways to expand the perceptions of his audience. He likes Nintendo’s Wii because it makes people interact with a screen with the freedom of bold gesture and movement rather than by fiddling with a mouse or track pad. In 2007 Fred and Nick did a performance at an IMAX cinema for the BFI Electronica Festival. They created the IOTA (Inventions of the Abstract), an hour-long performance of abstract imagery with a minimalist musical element, thinking of it as abstract art that included movement and sound. Fred sees the possibility of ambient art of this type becoming part of the living room.

Your huge flat TV screen can suddenly turn into a work of art, with visuals that don’t necessarily draw you in on a narrative basis, but whenever you look at them they’re beautiful and ever-changing, with a sound track to match. Perhaps you don’t want to watch the news because it forces you to sit back—you’re almost pinned to the wall by watching traditional television. You don’t really want to do computer stuff because that draws you in. You want this kind of ambient interactivity where it adds something to your experience but isn’t the whole of your experience.

Alex Maclean

Airside was commissioned by Panasonic to promote a new range of handsets. Alex describes his concept for customization in multiple media.

We designed graphics for the covers of the phones. We produced a minute of animation to the music that Fred wrote, based around animating the grid of LED lights on the covers. We designed the packaging for the customization kit, containing the covers and the coupons to download the ringtone and animation. Fans could also buy a T-shirt that went with it.

They did it as a limited edition of 2,000 to just promote the launch of the new handset. The package delivered the whole look and feel, almost like an operating system for the hardware. They let us do anything we wanted for the animation on the screen of the phone. It had silly ghosts and animated hands, and a little dog who lived in a sewer, who came up and did a lot of poo. It was just ridiculous animation, synced to the music Fred had written. Each version had its own little scene, its own T-shirt, and its own little cover that went on the phone.

Japanese people seem to absorb Western culture much more completely than people do here. They know more about things like Sesame Street or Winnie the Pooh. They know more about its creation, genesis, and characters than anyone in the West does. That’s why we love working in Japan.
VIRAL MEDIA

Airside was asked by another Japanese company to come up with concepts for toys that plug into a USB port on a laptop, so that you just plug the toy in and it does something engaging. They came up with lots of nice ideas about how it might play music or change color in a beautiful way, but then the subversive side of Alex's personality inspired him to say, "What if you had a memory stick that you plugged into your computer and it was like an animal that just humped your computer while you downloaded files?"

The idea was accepted and implemented and is being produced at a rate of about 100,000 a month. If you go to YouTube and enter "Humping Dog" in the search box, you find that there are 2,815,000 hits, as of November 2009, for a little movie of the dog in action. Alex is interested in the viral element of this success.

It's a project we almost didn't publicize because we weren't particularly proud of it, but it has such a viral element to it that it seemed of interest. We are constantly asked to produce virals for people. They come to us with a script and say, "Can you make this viral for us?" We have to say, "That's not a viral! You're making a short animated commercial you want to put on YouTube, but the idea isn't viral. Also, you need to take away the branding, because people won't forward it to their friends if it's covered in your advertising material." To be truly viral it can't be overtly commercial. The idea itself has to be viral. You almost have to take out the commercial element until it is a viral idea.

This idea of plugging a dog into your laptop and it humping your laptop is an end in itself. It doesn't need to do anything else. It doesn't need to work any harder than that. It's stupid and pointless and crass, but that may be why it's viral. There are a few examples that are both beautiful and also succeed in becoming viral, but there are many more successful instances that are full of raw sexual content, or toilet humor, or they contain some sort of outrageous violence that you can barely bring yourself to watch.

The BBC know this from their news Web site. If they were to go purely with the stats of the news items people actually watch, they would only ever publish the skateboarding dog stories, or the celebrity caught naked on the beach stories, because those are the ones that people click on. You have to draw the line somewhere. If you went purely with what is viral in terms of news media, then you know what sort of news you'd get.

That's funny, because the humping dog thing was all concept and no design. In fact, we designed something, but then the client went away and had somebody else design the final look and feel, so it's not really an Airside project. It doesn't even look like an Airside project. And yet, it's probably one of the most successful viral things we've ever really done, just because of the idea. It is more satisfying for us to come up with the design concept, as we are closer to the client's needs and helping them rewrite the brief. We're not taught traditionally in
art school that that is design. Design is, “Look at this record cover that I designed,” not, “Why is it a record cover?”

When the Internet became ubiquitous, Alex was very enthusiastic about the potential use of the new online media for public debate. He set up a charity to help people communicate with their members of Parliament, putting them in direct contact with their public representatives. He learned a lot about the Web and communications but became disenchanted with the medium as a democratic forum for debate since it became obvious that the loudest people are the ones who get heard the most. The people who want to disrupt or rant are the ones who grab all the attention and drive the other people away.

We’re still a very long way from being able to hold our public representatives accountable for their actions through an Internet-based forum, but the Internet has become so much more interesting in so many other entertaining and fun ways. It’s a lot less worthy than I thought it was at first. Also, technically, it’s become a minefield now. I’m not very technical so I fell out of love with the Internet and fell in love with all forms of traditional storytelling and narrative. You have a lot more control I think that way as well. Crafting, writing, and storyboard, and being able to create messages that way is very, very rewarding. The nice thing about Airside and about me, Nat, and Fred is that we all want to be creative. When clients come to us with really interesting projects, that’s when we get those real “a-ha” moments!

GREEN MESSAGES

Alex also gets excited when he has a chance to contribute to more idealistic projects. Airside was recently commissioned to create two short films for Al Gore, for the worldwide Live Earth concerts, to illustrate issues around climate change. Alex felt that it was important to avoid getting preachy and worthy, as people are suffering from compassion fatigue when it comes to the environment. They’ve heard the messages too many times. The partners looked for entertaining ways to persuade people to change their behavior to help alleviate climate change.

We made two films, one about a penguin on an ever-decreasing ice flow who eventually has to jump ship; when he dives into the ocean he finds a city that’s completely submerged. The other has all the animals teaching people lessons, with silly cartoon characters and one idiot bloke who represents your average consumer. And every time he does something wrong the animals have to teach him a lesson about how to put it right. By using these little cartoon characters and making silly scenes, it came across as pure entertainment. It was a really big lesson for us: entertainment first, message later.

A lot of the new work we’re doing at Airside is more narrative-based, short form, short film-making animation. “Narrative-led” is the new thing for us, really. There’s so much user-generated content out there. There’s so much proliferation of messages, blogs, and opinion. We keep finding that it’s worth coming back to well-written, entertaining, and fun bits of messaging. There is value in those old-fashioned attributes of quality, care, and craft.

The interest in original narrative and environmental issues led Airside to pitch a project to the BBC, which was picked up. It’s an animated series about environmental issues, with each episode in bite-size two-minute chunks containing some messaging, some information graphics, and a tiny bit of ludicrous violence and entertainment, plus some music and dances. They are crafting each of these episodes to be divided into smaller tidbits, which you can then download to your phone for use as a ringtone or to send to your friends. TV executives are changing the ways of commissioning animation, moving away from the traditional 11- or 20-minute pieces toward smaller chunks that will translate easily across media, into the ever-expanding world of cell phones, SMS, and Twitter.

ROGER MCNAMEE HAS USED HIS INVENTIVENESS and business acumen to create a unique new combination of media to promote music and musicians. His latest band, Moonalice, was formed in 2007. He has supported the band through the sale of posters, books, T-shirts, CDs, and DVDs while making material available online for free and keeping the price of concert tickets very low. He feels that accessible tools for creating music are beneficial to everybody. He tells this story in the next interview.
ROGER MCNAMEE

Roger is both a musician and a venture capitalist. He plays lead guitar in Moonalice and has developed a unique combination of new media to promote music and musicians. The band has virtuoso performers, including ex-Saturday Night Live guitarist G. E. Smith. They perform live at affordable ticket prices but supplement their band’s income with accessories and publications, promoted online and through social media, including MySpace and Twitter. The other half of Roger’s life is dedicated to his role as a founder of Elevation Partners, a private equity firm that invests in intellectual property and media and entertainment companies. They have a major stake in Palm Computing, where he has guided many of the development decisions for the Palm Pre and has publicized it enthusiastically. Roger got his start on the business side, helping the Grateful Dead to stay viable after Jerry Garcia’s death through direct sales to their fans.
Roger has a day job as a venture capitalist and is very connected around Silicon Valley, so I have friends who know him well through both Palm and his musical activities. He came to the IDEO office in Palo Alto for the interview and talked enthusiastically about media in general and his approach to promoting Moonalice in particular. He believes passionately that it’s more fun to create music, art, and design than to consume it, but his business acumen helps him bring interesting insights to the questions of financial viability that confront people who hope to make a living in the arts. He is also familiar with the leading edge of new technology, readily adopting the tools that can change people from consumers to creators.
CREATIVE USE OF MULTIPLE MEDIA

Roger has performed in bands since college, where he claimed to be the worst performer in a very good band at Yale. Since then he has practiced consistently to enhance his craft, but he kept his performing career strictly separate from his venture capital work in the early years. When he started out, there was excitement and danger in the drugs and adventures associated with touring. More recently the music business has become separated from its audience, and newer bands have created the image of danger with body piercing, tattoos, and hip clothes. Then suddenly the onset of music file sharing crashed the financial structure of the record companies and the recognized bands.

The business basically died once Napster started in ’97, so a lot of great performers suddenly became available. My old band, The Flying Other Brothers, started to become a magnet for really great players who were between gigs—first Pete Sears, then Barry Sless, then Jimmy Sanchez, then G. E. Smith. At that point T-Bone Burnett, the producer, was helping me on a project. And so T-Bone goes, “Look, I really like what you guys are doing but I think you need to start over again. You need to create a band from scratch. The business is dying and you ought to figure out what’s gonna work here!”

So we started Moonalice. We picked the name because our poster artists thought it had fantastic imaging associated with it, so we could build art into the theme from the beginning. The legend is that Moonalice was an ancient native tribe that was everywhere, and that wherever we go, we discover pieces of the legend from the local community and share it at each show.
Before we even put out an album we put out a book. It’s a book of all the posters from the first year and all the legends and set lists. In the first year and a half, we played 150 shows and created 135 posters.

It was a bold move to start all over again, but it gave them a chance to involve the fans right from the beginning. They decided to be accessible instead of remote, self-deprecating instead of arrogant. They were committed to trying wild experiments as often as possible. Sometimes G. E. Smith gets up at the beginning of a song and says, “This one’s in E.” It’s not just that they don’t know what song he’s going to play—they’ve never even heard the song. They switch instruments constantly, so they don’t have the same people playing the same instrument on the same song two nights in a row. If you’re a fan, you can talk to the musicians before and after the show. They felt reinvigorated:

You talk to famous musicians and they tell you, “Ah, I remember the days in the clubs. That was the best time.” But they don’t perform live in intimate venues anymore. Moonalice started from scratch. We’ve put up all the live shows on the Web, so that people can listen. The posters are all on the Web, but people want to buy stuff, so now we record and video every show, so we typically sell the prior ten shows each night, not that night because it takes about two weeks to get it done.

We charge practically nothing at the door because the economy sucks, and we want people to participate. It’s better to play free shows and then those who have disposable income can buy T-shirts and albums. When we play to a couple thousand people, we’ll sell hundreds of items. You can make really good money doing that, but you let people choose what they want. Everybody loves the posters, but because we do one for every show, we quickly overwhelmed people’s ability to buy the whole set. And so we decided to put the complete set out in a nice-looking paperback book.

It is not yet clear whether the multiple media approach to marketing will be scalable, but it is working for Moonalice. As the tools for media production become more and more accessible, it seems likely that there will be a yes-we-can effect. On-demand publishing makes the book production easier, many artists are excited to hook up with a band and create a poster, and the Web is readily available to everyone. It’s a form of ecosystem, with all of the participants benefitting from one another’s success.

In April 2009 Moonalice held its first live Twitter-integrated concert in San Francisco. Following each song during the show, the sound team digitized the song’s audio, uploaded it and then tweeted about its availability, all before the end of the next song. The sound team used TinyURL to tweet a link to a site where users could listen and download the song. Because of the live Twitter integration, Moonalice has seen an upsurge in downloads. It’s likely to only be a matter of time before this trend becomes viral.

A record company executive approached Roger and said, "Look, this band is really good. This is a T-Bone Burnett album. I can give you
"sell in" of 23,000 units on the first day!" That is better than the Grateful Dead could do today, but they realized that there's a high risk that a lot of the CDs would get returned, as most people don't buy CDs in retail distribution any more, so instead they decided to market the album independently, through Amazon, at the shows, and with free downloads from their Web site. Roger explains that free downloads can help the band reach more people:

If people want stuff for free, there are hundreds of our shows available online, but if they want the band's version of it in nice packaging, they can buy it from us. There are some people who sit there and go, "Well, wait a minute. I'd like to contribute." We effectively have a fan subscription but it's free, and in America free is a very powerful word.

**IT'S CHEAPER TO CREATE THAN TO CONSUME**

Roger believes that democratizing the creative process is inherently good for society, that it educates all of us and makes us realize that any of us can put up an idea, by blogging or adding an entry to Wikipedia. Just as in desktop publishing, where people quickly developed an awareness that more than two fonts on a page was an inherently perilous avenue to pursue, they've come to appreciate that democratization creates risks in other areas as well. What's really exciting is that we're right at the beginning of a revolutionary surge in accessibility of new digital tools.

I grew up in a world where media was something that was created by others and then presented to us in some sort of broadcast fashion. In the last five years, a behavioral change has taken place, and people are returning to the notion that it's more fun and entertaining to create media than it is just to consume it. My sense is it started with digital photography, but now you see it everywhere.

I asked one of the guys at MySpace. They have seven million bands on MySpace. I don't think that there is any way that more than a million of them have ever given a live performance. So you say, "What about the rest of them?" Well, the answer is that the tools required to make recorded music and videos are available to anyone. They're really easy to use. There's almost no greater joy one can have as a musician than going through the process of creating music, recording it, mixing it, and preparing it for distribution; and so it doesn't surprise me in the slightest that there are six million bands for whom that is the objective. To me that's a wonderful change!

Roger studies people to determine how and where they spend their time. He tries to evaluate their priorities. Of Chris Anderson's "long tail" concept, he has the following to say:

Putting it in temporal terms, it is very clear that passions fragment very quickly as you get down the long tail of the curve. Where people place their time is where they place value. The conventional media world had a forty-year period where they could buy the population in large chunks. Now those chunks are not only being whittled down, they have less value because people are paying attention to things that have less economic value. I think it's getting easier and easier for people to put time and attention into the things they love, especially in a tough economy where it's a lot cheaper to create than it is to consume.

My parents, who grew up during the Depression, were part of the World War II generation. By the time they were twenty-five they had made three decisions: where they were going to live, who they were going to marry, and where my father was going to work that effectively put them on rails for the next thirty years. And the way I think about it is that they had very few choices from that point forward, but they had this marvelous safety net. Now the situation is reversed. All the safety nets are gone, but we always have choices. Oddly enough, the problem for many people is that they are overwhelmed by choice. You know the great joke about Starbucks is that it forces you to make seven or eight decisions before you're even awake. Everyone's trying to balance their family, their career, and their personal finances, and there's not enough time in the day because you don't have a support infrastructure.
I still find it amazing that Wikipedia works so well. There is genius behind the simplicity of the design that Jimmy Wales created, with a self-correcting structure that allows open contribution with just a little bit of police work by the volunteer administrators. In his interview he talked very philosophically about the values of community, collaboration, and sharing, so it seems ironic that he started Nupedia and Wikipedia with money made from financial futures and a men-only Web portal.

He evolved the design with surprisingly few twists and turns, claiming, “We actually can build large-scale social processes that allow lots and lots of people to come and work together.” The success of these social processes is based on a simple hierarchy in four levels, which he describes as a benevolent monarchy:

1. An open architecture that allows anyone to contribute material, identified by an IP number and a screen name.
2. Volunteer administrators, elected from within the community, who police the behavior of contributors.
3. An arbitration committee, elected by administrators, to resolve difficult issues.
4. King Jimbo, holding the board-appointed “community founder” seat, to personally appoint officers for key roles.

This structure relies on the combination of automation and human judgment. Jimmy thinks of it as community design, where social rules and norms for interaction enhance the software, bringing members of the community together to do something productive and enjoyable.
As Wikipedia has evolved, a set of admirably simple design rules has emerged:

1. Leave the software as open as possible to let users do things their own way.
2. Keep all versions of an entry remembered and accessible, to ease policing.
3. Make changes easy to see by color-coded version tracking.
4. Keep comments and discussions within the Wiki pages, for visibility.
5. Don’t attack people personally; discuss but don’t accuse.

Wikipedia is surprisingly accurate and up-to-date, initially limited only by the founding culture of an elitist meritocracy of computer engineers. Contributors are the volunteers, so they have chosen the topics that they enjoy participating in and contributing to.

Craig Newmark is simple, elegant, and effective. Anyone involved in evolutionary design development should remember his pattern of listening to feedback, acting on that feedback, and listening more. He doesn’t call it design, but I see it as embodying the most important elements of successful design. He is constantly aware of what people want and endlessly trying to make improvements by iterative prototyping.

He says, “Fortunately, I knew from the beginning that I have no design skills but knew how to keep things simple. And we’ve maintained the simplicity over the years.” Craig, I beg to differ! In my opinion, keeping it simple is in itself a powerful design skill. He has also developed a simple set of design principles or guidelines:

1. Listen to customers.
2. Design solutions to address problems.
3. Try out the resulting designs with customers.
4. Listen again (and repeat the cycle of these four steps).
5. Always move in small increments to maintain sustainable growth.
6. Delegate roles, including leadership.
7. Avoid complexity.
8. Be consistent and persistent.

The culture of trust at Craigslist is based on values, such as treating people the way you want to be treated. The strongest similarity to Wikipedia is that people rather than algorithms make the crucial customer-service judgments.

Craiglist thrives due to excellent customer service. As with Wikipedia, some measures of policing and control are needed for quality and truth.

Pandora Internet Radio doesn’t seem like radio to me. It seems like a new medium because it offers a lot more personal choice and control than traditional broadcast radio. The tortuous path that Tim Westergren went through in order to arrive at this innovation fascinates me. He started as a performance musician, then composed music for film and television, and discovered that he could define a taxonomy of musical attributes. Next he patiently developed the Music Genome, tried offering it as a recommendation engine, and at last realized that it could be used for creating and manipulating playlists, something that might be called radio for the Internet. What a journey, and so rewarding to arrive!

Tim has a vision of two goals for Pandora. One is to build the world’s largest radio station, with hundreds of millions of people listening to personalized radio. The other is to build a musician’s middle class, so that musicians no longer need day jobs. The digital revolution has made it possible for musicians to create music with heavy orchestration, layering, and multiple tracks. The tools to make music are there, but it is still difficult to find an audience. Collaborative filtering, as practiced so effectively by Amazon and iTunes, does nothing to solve the problem for unknown musicians since it works on the “people who like … also like …” model. The Music Genome Project solves this dilemma by analyzing the attributes of each piece as it is included in the Pandora repertoire, so that music can be matched to preference without previous exposure.

As with Wikipedia and Craigslist, the secret ingredient is combining algorithms with human judgment. Pandora employs analysts who are trained to position each incoming piece of music on a genome of four hundred attributes, covering melody, harmony, rhythm, tempo, instrumentation, vocal performance, vocal harmony, and even softer values like feel. Tim evolved this design when he realized that he could describe his instinctive judgments explicitly and started the Music Genome Project. Advertising revenue followed once the tipping point of scale was reached, as advertisers are attracted to the ability to stream a single channel to each listener.

Thank you, fans of Einstürzende Neubauten! Here’s another way to give hope to impecunious musicians. How ingenious of Erin Zhu to realize the potential of a subscription model enabled by the Internet—and thoughtful of Blixa Bargeld to see that the community of fans could be rewarded by closer connections to the performers. Blixa has led his innovative industrial rock band for decades, but even with an expanding and loyal fan base, he
was unable to support the expenses of production using the conventional contract system with record companies, so he and Erin developed a new economic model based on subscriptions from fans, bypassing the traditional music business.

The breakthrough came when Erin said that they should go directly to the fans for contributions toward the next album. This simple idea has worked for three iterations of new material. In return, supporters have had more intimate access to the band, with webcam views of rehearsals and recording sessions; the opportunity to comment in real time online through a moderator; and access to one another through the chatroom on the Web site. The first time that they did this they created an album, the second time an album and a DVD just for the supporters, and the third time an album for the supporters plus a smaller version for the public, a DVD for the supporters, and a monthly track to download. By this time they had expanded to 2,500 supporters.

Blixa likens this subscription model to the tradition established for books, where members of book clubs purchase work in advance of publication. He is also interested in the evolution of formats and the way they influence musical structures, with the twenty-minute session dictated by the vinyl long-playing record and the short pop song coming from the 45. How will the unstructured possibilities of the Internet influence change? Perhaps the design will relate to people instead of formats. Erin sees a future with an infinite virtual library of music in the cloud, accessed by subscription from any device that is connected to the Internet.

The output created by Airside appeals through lively humor and slightly subversive charm. They agree with Blixa that a new media format for music will evolve that embraces the functionality of the digital age, but when it comes to designing in old media or new media, they don’t see any difference at all. They think that design has always been about problem solving, and exploring, and about having fun with it. As Charles Eames put it so succinctly, “Design is a method of action,” whatever the media or disciplines. They focus on people, and the subjective qualities of design solutions, saying, “We are interested in how to make someone feel something; how to make someone react; how to create an emotional response. With all interaction, whatever the media that you’re interacting in, you’ve got to remove as many barriers as possible, because everyone’s got too much on. You’ve got to make it as easy and as intuitive as you can.” Try, try, and try again, until you have designed a solution that is simple and intuitive.

They have combined music with animation to enhance the flow, using visual as well as audible narratives. Creativity in one medium can be supplemented by linked designs in other. They are fluent in design skills across media, so some of their more serious underlying philosophies can be supported with a light touch and engaging style. For example, when they were commissioned to create two short films for Al Gore to illustrate climate change issues, they avoided getting preachy. They looked for entertaining ways to persuade people to change their behavior.

They made two films featuring cartoon characters and silly scenes that came across as pure entertainment, proving the value of “entertainment first, message later.” Thank you, Alex, Fred, and Nat for your contribution as entertainers, with the meaningful messages there as well.

Roger McNamee is both a musician and a venture capitalist. Combining his inventiveness and business acumen, he has created a unique new combination of media to promote music and musicians. His band Moonalice was formed in 2007 with a yes-we-can attitude to promotion and financial support. They perform regularly and often, keeping their ticket prices low. They created posters for almost all the concerts, offering them for sale individually and compiled into a book, together with Moonalice legends and concert set lists. Every show was recorded on audio and video, with carefully packaged CDs and DVDs released two weeks later and the previous ten shows available for sale at each concert (along with T-shirts). Free downloads of the shows and videos are available online, but people can pay for the nicely packaged physical version if they want it. In April 2009 Moonalice held their first Twitter-integrated concert, with each song being uploaded during the show and tweets sent out about the real-time availability. This combination of offerings has proved more financially viable than the traditional record contract.

Roger feels that accessible tools for creating music benefit everybody. He believes that democratizing the creative process is inherently good for society, that it educates all of us and makes us realize that anyone can put up an idea, by blogging or adding an entry to Wikipedia. This change challenges the conventional media world, after a forty-year period when the population could be accessed in large chunks. It’s getting easier and easier for people to put time and attention into the things that they love.

WE CONTINUE WITH THE MUSIC THEME for the first interview in chapter 3, “New Connections,” with Jorge Just. Jorge masterminded the promotion of the band OK Go, making them famous through viral videos published on YouTube.