

## A UBIQUITY INTERVIEW WITH DOUG KAYE

*Doug Kaye launched IT Conversations ([www.itconversations.com](http://www.itconversations.com)) in May of 2003, 16 months before the first "podcasts" came on the scene. He is the executive producer of IT Conversations and CEO of The Conversations Network ([www.conversationsnetwork.org](http://www.conversationsnetwork.org)) a new international not-for-profit podcasting network capturing and producing spoken-word events on a wide variety of topics.*

*Before his distinguished 28-year career as a computer-software and dot-com CEO and CTO, he cut his audio teeth as a field and studio engineer in music and radio and as a sound editor and post-production mixer in film and television. Somewhere along the way, Doug found time to write two books of his own: "Strategies for Web Hosting and Managed Services" (John Wiley and Sons, 2002) and "Loosely Coupled – The Missing Pieces of Web Services" (RDS Press, 2003).*

**UBIQUITY:** Why don't we start by having you tell us about your latest book.

**KAYE:** Well, the latest book is called "Loosely Coupled: The Missing Pieces of Web Services," which I wrote about three years ago when web services were relatively new. They were certainly new to me. And as I started to get into the technology of web services and looked at a couple of systems, I realized that there were a number of aspects of building loosely coupled systems that were not there. So there were a lot of people proposing development of loosely coupled systems but a lot of it was sort of pie in the sky technology. I also surveyed the books that were out there, most of them "how to" books. There weren't really any strategy books that would help people understand the true deep concepts of loosely coupled systems and at the same time deal with the higher level aspects of loosely coupled systems. So my goal was really to develop a strategy book. But I think it goes into a fair amount of detail as well.

**UBIQUITY:** If you had to explain what is most important to know about loosely coupled systems to someone who was getting into a rowboat to leave ship, what would you say?

**KAYE:** I would say, You have to develop a new religion: before you leave this ship you need to develop a new religion and you need to get a really clear understanding of asynchronous messaging.

**UBIQUITY:** To what end?

**KAYE:** You really need to understand that if you don't do things asynchronously then you are really just doing the old API thing. There is nothing wrong with that, but you are not going to benefit from the great promises of loosely coupled systems that come when you develop things that are coupled asynchronously. Now having said that, of course most of the stuff that I do and am involved with is not asynchronous. The real world out there is a more tightly coupled world. But, you know when we are doing

that we are really just using old API technology in the same way. The fact is that is the way that most of those things are done. But as we look towards the future and we look at truly asynchronous loosely coupled systems we are going to see quite a change.

**UBIQUITY:** How would you explain why asynchronous is so much better?

**KAYE:** Well, because it is truly loosely coupled. When I have to link two systems together in a way that is lock-step, the other system has to be online -- has to be available. And I have to know a fair amount about that system. And so it is not really a loosely coupled system. I am not taking advantage of true service-oriented architecture at that point. You know, a lot of the things that we use are really just variations on the API schemes that we have used for many years. Of course, there are true benefits from them still, in that we get language independence, we get a lot of things. But we *don't* get the big wins we are going to see eventually.

**UBIQUITY:** Let's pause here to ask you to tell us about yourself.

**KAYE:** Well, I guess the interesting thing was that I started college in engineering physics and graduated college in drama. That should tell you a lot about me. The first computer program I ever wrote was on an IBM 1401 and I never had a successful compile. But after a brief career in the motion picture business (mostly behind the scenes or all behind the scenes), I was working in the motion picture laboratory business and got involved with data processing issues for film production, and ended up shifting from the film business into the computer business. I was quite enamored with what you could do. This was in the early to mid 70s, and in the late 70s I started my own company developing compilers. I had, in the process of doing what I was doing, had to develop some language processing tools, so I started a company developing compilers. We then went on to implement TCP/IP and other protocol stacks for third parties, and ended up growing that business. And in 1995 sold that business, at a point when it was a software company as well as a systems integration company. And like everybody else I was intrigued by the potential of the Internet. But after selling my business, I decided I wanted to work my way down the corporate ladder, and I became the CTO or VP of Engineering for four dot com start-ups over a four-year period. So I went from 18 years of running my own business to running some other businesses or working in some other businesses -- four of them over the course of just four years. It was sort of a different experience.

I left the last one in 2001, wrote two books. I wrote a book on web hosting. I had some experience running a web hosting operation and then I wrote the second book, "Loosely Coupled," after that. And in 2003, I started what is now known as "IT Conversations" and "The Conversations Network"

**UBIQUITY:** What was the motivation for "IT Conversations"?

**KAYE:** Well, when I was working on that second book, "Loosely Coupled," and as any journalist or any writer does when he has no clue what he is doing, I started interviewing people. I called up some of the experts in the field and I interviewed them, and I asked them if I could record the interview. It was just a matter of taking notes actually. But in the process of talking to over 40 people, I realized I was talking to some of the great minds in the areas of web services, so I called some of them back and asked if I could re-record the interview and put that up as an audio file on the web. And they said sure. So my interviews in May and June of 2003 were with the people that had helped me on that book, some of the people I had interviewed. I just put them up there. I think in the beginning I edited a fair amount and over time I learned to edit less. I think you know sort of the Mark Twain concept: "If I had more time, I would have made it shorter." And, so I put those online. I had a web log at the time, so I just posted links to them. They were pretty popular and it just grew and grew and people wanted more interviews. I branched out of web services into other IT topics. And then in February of 2004, so two years ago, I was talking to some of the folks at O'Reilly and I said "Hey, you are doing this conference coming up called ETech, Emerging Technology. Why don't we do two things? First of all why don't we stream it live online and see if anybody is interested in listening, and second why don't we take those recordings and post them after the event and see how that goes?" They were game to that. They didn't want me to advertise that they were going to stream it live because they didn't want to hurt attendance. So we did it sort of stealthily. We had a few hundred listeners for the live event, just from word-of-mouth in real time about the fact that it was on. But then we had tens of thousands of people listen to the event once it was posted after the event. And it just sort of took off from there. It went from doing O'Reilly events to lots of other IT events, to now doing things that are way, way beyond what we would call IT, into biotech and environmental issues and even dabbling into politics. We even covered a sporting event that is one of my favorites. We did the first "DARPA Grand Challenge," covering it flag to flag, -- which was easy because there was only one flag. I think they made seven miles. But that was the genesis of "IT Conversations."

**UBIQUITY:** What is the status of your organization? For profit? Not for Profit?

**KAYE:** The Conversations Network is a non-profit California corporation and the Conversations Network is the umbrella organization. The hierarchy is as follows: we have the Conversations Network at the top, then we have

individual channels. IT Conversations is the only channel at the moment, but soon we will be launching a couple of others, such as Open Source Conversations, Security Conversations, one called Social Innovations and one called Tech Nation. Tech Nation is a Public Radio series that we co-produce. And that is going to be its own separate channel because we have so much content there. Each channel will have a vertical focus, and then within each channel there will be five programs a week, mostly from various events in those industries. So, for example, Security Conversations will publish audio and eventually video from many of the major security conferences going on around the world.

**UBIQUITY:** What have you learned from doing this project?

**KAYE:** Well, a lot. Over a year ago, a lot of people who were listeners would try to contribute audio. They would send audio and say, "Here, would you put this on the channel?" I had problems at first with the quality so I would turn those down. Eventually, I worked with other people to help them improve the quality of their audio, because we are trying to maintain a broadcast quality model. But also we had people who wanted to send money, because they wanted to make sure we didn't go off the air. At that point I was working as a consultant, and I guess you could say I was semi-retired. I had no intention of growing another business. I had told my wife in fact that I am never going to start another business, because we have done enough of that. But I had so many people writing me and telling me that I had changed their lives -- and you know I certainly never expected to be changing somebody's life doing the kinds of things I was doing. But it ranged from someone saying he bought a particular model car because it had iPod integration (and he could listen to what we do) to people saying, "You know, you keep me in the gym because I like listening to your stuff." And I get mail from people all over the world saying, "You are helping me attend events that I could never afford either in time or money." We also looked at the conference business and found there was a very predictable model, in which we reach roughly two orders of magnitude more people than the physical events do. So if you produce an event and have 400 physical attendees, we are likely to hit 40,000 people unique individuals hear the podcast version of that conference. And that really is fairly revolutionary in the conference business. In the old days, you'd go to a conference and you would be able to buy the cassettes afterwards. Well, you might have 400 people at the conference and you might sell 100 or 200 sets of cassettes. And half of those went to the press. But by reaching two orders of magnitude more people we really are making a difference. Of course, it is depressing for the conference producers because they are working pretty hard to make sure there are enough meals and chairs, yet they are making

all that effort for essentially one percent of the total audience. But they are coming to grips with that.

**UBIQUITY:** So do conference producers no longer continue that practice of selling cassettes at the conference?

**KAYE:** Most of the conferences that we work with don't do that any longer. Their idea had been that it might generate some revenue but it actually generated very little. Most conferences are done for two reasons. They are either commercially produced conferences where the goal is literally profits, or the conference is sort of an ego event where the conference producer -- either an individual or an organization -- is trying to increase their influence in the world. Certainly in the later case, reaching 100 times more people, we are making their event more influential, but even in the former case, what we do for them in terms of raising awareness of their events, in terms of generating future registrations for future events is much more powerful than what they get from selling cassettes. So it works out quite well.

**UBIQUITY:** What is the next conference you are going to go to?

**KAYE:** In fact we don't go to most of them any more. In most cases we have the event producers record them for us. But the next one coming up is the two year anniversary of the O'Reilly Emerging Technology Conference being held in San Diego. That will be on IT Conversations.

**UBIQUITY:** But you don't have to be there and set up your equipment and so forth?

**KAYE:** No, because to get broadcast quality you are going to record through the sound system anyway. So, it is much easier for us to work with the audiovisual contractors, have them do the recording. Now what happens then is they submit the raw audio to us. But one of the things unique about our network is that we have a team of 40 or more people all around the world who do post-production work in their spare time. So we have people in India, we have people in Ireland, we have people in the states. Half of them are audio engineers who know editing and noise reduction and things like that, and the other half are writers.

**UBIQUITY:** Why do you need writers?

**KAYE:** Because a lot of what we do is creating descriptions online, links to resources, photographs and so forth for every program that we produce. And we are just about to the point where we are ready to produce our

1000<sup>th</sup> program. So we need that team. They used to be volunteers but now they are paid what we call beer money.

**UBIQUITY:** How much beer do they drink?

**KAYE:** Not too much because we are not able to pay them too much. So we keep them moderately healthy.

**UBIQUITY:** Tell us about your favorite event.

**KAYE:** E-Tech is one of my favorites, and that's one of the reasons I'm going myself to the event this time. A lot of great people. Someone might ask, why would I go to an event and pay a few thousand dollars when I can stay at home and listen to it in the convenience of my home or while I'm exercising. Well of course it is the experience of being there. In the case of E-Tech, there are some marvelous people in information technology and other areas of technology that are great to meet. My other favorite is called Pop!Tech, which is an annual event in Camden, Maine in October of each year and that is a truly remarkable event. All of the speakers are volunteers, some of whom would normally make tens of thousands of dollars in speaker's fees. But these are really some of the greatest minds on our planet, and looking at new ideas of the future, issues of sustainability and environmental issues and so forth. It is a truly marvelous event. It is one that I really look forward to, because I have actually never been there, but this coming year I am going to be in Maine for that one.

**UBIQUITY:** Who organizes that?

**KAYE:** The lead person is Andrew Zolli, who is the brains behind Pop!Tech.

**UBIQUITY:** Tell us some of the great things that have been showcased on your web site.

**KAYE:** Perhaps the most popular was a presentation by Malcolm Gladwell who is the author of "The Tipping Point." We have a feature where the folks at O'Reilly go through our archives and pick out a show once a week. Malcolm's presentation is marvelous from a year and a half ago at Pop!Tech. That one has not just now crossed the 100,000 listener level, so more than 100,000 individuals have downloaded that presentation. Another great one from that conference was Thomas Barnett, who was formerly with the State Department and had a new book out at that time called "The Pentagon's New Map." We have had a number from Pop!Tech. Some others that I especially liked were with security experts Dan Geer and Bruce Schneier.

**UBIQUITY:** Where do you see your audio project going?

**KAYE:** We are going to be expanding this year so that by the end of the year we will have probably a dozen channels publishing 60 programs (total) every week. So we are just ramping it up. Now, obviously, nobody can listen to that much stuff, so we are really trying to play the Long Tail game if you will and get the best content even if it is of interest to a relatively small audience. And we are going to open up the technology we've developed to the general public. If you think about it, every day on the planet there are scores and scores of meetings and conferences and lectures that disappear - just evaporate because there is nobody there to capture them. So what we are going to do is allow people to record events anywhere in the world on any topic. We are going to operate a database like a dating service, to help events find stringers, as we call them, and hook up stringers with events so that these things can be recorded, edited and produced. We are going to make our publishing tools available for the public. All this is happening because this is very unique time because of the birth and growth of podcasting, and by the end of this year there will be perhaps 100,000 podcasters. Our vision is to tap into the social conscience of those podcasters and say, "Why not give something back to your community and spend a little time serving as a stringer for this non-profit network, and going out and recording events in your community and helping us get them online?" So it will be an all-volunteer effort, and we are going to provide the software tools and some of the training and so forth.

**UBIQUITY:** Have you had any interest in putting a more formal intellectual structure on your rigid -- not more rigid necessarily but stronger in the sense that, let's say, the Open University in the UK gives courses and gives credit? Can you imagine using your project being used for something like that, and for giving credit?

**KAYE:** Yes, the university situation is fascinating because most universities already have a program to record lectures. They may not be recording classwork per se, because in some cases the class work is proprietary, and they don't want to let it out without a fee. But in any case there is a lot of stuff that is being recorded that these universities seem to be putting into vaults. They have no distribution plan. So in many cases what we are able to do is talk to the universities and unlock those archives and get permission to publish them. In the cases of coursework we are looking to doing that too. No projects are ready to announce yet, but we are planning to have some before the end of this year where we are doing just that. Part of what we are doing in terms of developing that second-tier grassroots community content is meant to serve as a sort of farm club for us. That is a place where we essentially read the temperature of what's going on out there and what's

coming in and what's interesting and is of good quality. After we pick through that, we elevate some of that content to the first tier, which is our curated tier like we have today. A direction that this heads in many ways will be determined by what kind of content is permitted by the community. But I do believe that a lot of it will come from universities, because there is so much there and it is so good.

**UBIQUITY:** That's interesting. What about video? Has anybody asked you why you don't do video?

**KAYE:** Actually, we've been experimenting with video for about eight months now. If you think about a conference and what you want to see in a visual, most people will show up there with a camera and photograph a talking head. So what you end up with is a gigantic file that is only slightly more valuable than the audio because it has this talking head. But a large percentage of our listeners are listening during commutes or while they are jogging, and the video just doesn't help them at all. On the other hand, there are significant issues with presentations. Some of them are very visual. So, our focus now is solving some technological problems because we want to capture more than a talking head, we want to capture what is on the conference screen. We want to capture that video between the laptop and the projector that is in every conference nowadays. But it turns out to be a non-trivial exercise to do that, especially after the fact, because of course we have synchronization issues where we have to sync the images to the audio. But you will see by the end of this year on our network. But we have high-res screenshots and animated screenshots, low frame rate but high-quality video. That is an important part, and we have had to pass on certain great presentations because they simply didn't work as audio-only.

**UBIQUITY:** So can you see what you're evolving into a viable business?

**KAYE:** Well, it is a business, it just happens to be a non-profit business. I mean we still have revenues and expenses like everybody else. We just don't have shareholders.

**UBIQUITY:** Can you imagine it becoming a for-profit business?

**KAYE:** Somebody else might do that. We are not going to. I had the vision for what I wanted to do, and it didn't really matter to me whether it was for-profit or not-for-profit. That wasn't the goal. But as we looked at the grade of content that wasn't being serviced, it was content for which we would more likely be able to get the rights as a non-profit. If you look at some of the big commercial conferences with lots of dollars, they can afford to publish their content themselves. They don't really need us. But if you look

at the tier of events that don't have the resources, technology or dollars to put their stuff online, they tend to be in the non-profit sector. And so as a non-profit it is much easier for us to work with them. For example, we are just launching this series I mentioned called "Social Innovations," a series co-produced three ways; us, the Stanford Graduate School of Business, and some people at Carnegie-Mellon University. And it was much easier for us as a non-profit activity to work with and get organizational approvals from Stanford and CMU than it would have been if we were a commercial venture.

**UBIQUITY:** A very worthwhile project. The Ubiquity and ACM communities will be very interested in hearing about what you are doing. Congratulations and best of luck to you.

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