

Olivia Ryan: Okay, it's June 28th, 2006, and can you just state your name, please?

Scott MacGregor: My name is Scott MacGregor.

Olivia Ryan: And Scott, when did you first begin using computers?

Scott MacGregor: Ooh. Probably in middle school, if I had to guess correctly. I think PASCAL was the language of choice back then.

Olivia Ryan: Oh, yeah? And did you have any formal computer training or are you mostly self-taught?

Scott MacGregor: I actually graduated from MIT in 1996 and a masters in '97 in computer science.

Olivia Ryan: Okay. What's the first programming project you remember working on?

Scott MacGregor: The very first one? Hmm.

Olivia Ryan: Or what kinds of things did you kind of start off doing?

Scott MacGregor: Well, it probably would have been in high school. We had a programming class in high school and I believe there were small, almost like programming games where you were given a puzzle and you had to write a small computer program that would solve it. Or print out, you know, print out certain types of pictures using ASCII art, trying to come up with smart algorithms for doing that. So things like that were probably my first projects.

Olivia Ryan: When did you begin contributing to open source projects?

Scott MacGregor: So, I graduated in '97, and my first job out of college was working for Netscape Communications. And I was working on the Netscape 4.x Mail Client at the time. And then when we started the—when Netscape then gave way and we gave birth to the Mozilla project, that was the first exposure I had to open source software, was you know, participating in releasing the Netscape source code as Mozilla, and going through that process.

Olivia Ryan: And what do you do here now at Mozilla?

Scott MacGregor: I'm one of the engineering leads for Thunderbird, which is our standalone email client, very similar to how Firefox is the standalone browser client that the Mozilla project makes.

Olivia Ryan: So, were you involved with the projects kind of continuously?

Scott MacGregor: Yes, since '97, yep. I just realized it's almost ten years now, coming up on the ten-year anniversary, so.

Olivia Ryan: Yeah, right. And how many different projects did you work on—or kind of just take us through your history working here.

Scott MacGregor: Sure. So, when I joined Netscape we were working on the Netscape 4 mail client at the time. We had another large version called Netscape 4.5, which was also an email product. From there we gave way to the Netscape 6, Netscape 7/Mozilla 1.0 mail products. I've been working on email, by the way, the entire time. So, we were working on the Mozilla Suite email client.

And then a few years ago when the Firefox project got started, you know, Firefox was trying to deal with nuisances of the web, spyware, pop-ups. And we started to look around and you know, email had a lot of the same nuisances. You had junk mail, you had spammers with phishing attacks, viruses—so there was a same sort of synergy with what Firefox was trying to do and what we wanted to do for email. And that's kind of where Thunderbird got its roots from as far as developing standalone email that was focused on protecting users against the nuisances of email.

Olivia Ryan: And I understand that during the early development of Firefox the UI team was relatively small. Was it the same case for Thunderbird?

Scott MacGregor: Yeah, again, it was a very similar model. It was a small team, it was primarily David Bienvenue—who also works at the corporation with me—and myself, we're the primary leads for Thunderbird.

Olivia Ryan: Was it in the same way that, sort of like it was restricted? Or was it just kind of self-selected like that?

Scott MacGregor: Yeah, it was restricted trying to keep a small team highly focused on developing the mail client. Particularly with regards to the UI and the front end, keeping that team small.

Olivia Ryan: Okay. How is the division of labor generally determined in the projects whenever you work in groups with others?

Scott MacGregor: I think in general the groups tend to fall into, you know, some people tend to be more oriented towards writing the user interface and some people tend to be more oriented towards kind of the back-end, kind of the deeper levels underneath. And so that's probably the main way. You know, when we develop a feature, you know, David tends to enjoy doing a lot of the back-end work like, you know, the iMap or POP changes, and then I'll add

the UI aspects of those features as well. So as far as division of labor, sometimes it falls out that way.

Olivia Ryan: And how much communication exists between those two groups? And how—if there are differences or tension between those two groups—how would you resolve those issues?

Scott MacGregor: Well, I think in this particular case, you know, we've worked together for so long that we really don't have a lot of tension. You know, we use newsgroups a lot. We actually use MozillaZine, which is a Mozilla website and they have a great set of forums and we actually use those forums for discussion and interacting—sharing ideas with other contributors. So we usually don't have a lot of tension about product direction and features. But when we do, you know, we just keep going back and forth and talking it over, and then eventually you know, as the leads, David and myself would be responsible for you know, eventually forcing a decision, if we're not able to come to a consensus as a group.

Olivia Ryan: And to what extent does Thunderbird rely on the work of volunteers?

Scott MacGregor: Quite a bit. So, Firefox and Thunderbird are actually built using the Mozilla code base. So, they actually share almost 80, 90 percent of the same code. The Mozilla platform Gecko, the layout engine, the networking module, that's all shared. And so most of the Mozilla community base actually works on the Mozilla platform. So, all that work benefits Firefox and Thunderbird. And there's just a small layer of application specific work for those two applications.

Olivia Ryan: And why do you think people volunteer?

Scott MacGregor: That's an interesting question. I think because the project has so much reach. You know, when you're making an improvement to Firefox or Thunderbird, you're helping a lot of people and it's very easy to see the impact of the contribution you're making. And so many people use it, so many people understand, you know, Firefox and Thunderbird—I think that's—at least for me that's a great rush to be able to be helping people, and to knowing you're doing the right thing for them.

Olivia Ryan: Do you—is strict ownership of code generally enforced?

Scott MacGregor: What do you mean by strict ownership?

Olivia Ryan: Like particular areas of code? Is there an owner of certain areas?

Scott MacGregor: There are module owners and the module owners are responsible for you know, when someone new to the project comes in and starts submitting a

patch or an improvement to the code in that particular area, the module owner does have some responsibility to help integrate that person and bring them up to speed with how things, you know, with the right way to fix things and to help them along. The module owner would probably be the right level for that.

Ken Albers: Do you find that that sort of, that process works generally, more than it doesn't? Or that sort of structure?

Scott MacGregor: I do find that it works, although, new people in the project sometimes have to be a little persistent. You know, if you submit a patch and you're not getting any feedback on it, you've got to be a little persistent and ask, you know, speak up and ask. And you've got to be willing—it's very rare that someone submits a patch for the first time, you know, the very first patch and have it be correct, and go in as it is. So, you've got to be willing to get feedback and collect feedback from module owners and other folks within the community and being able to accept that and understand that's just part of the process, is important too.

Olivia Ryan: Why do you think that Mozilla and in particular Firefox has been able to attract such a large number of users?

Scott MacGregor: That's an interesting question, you know. Particularly, you know, I was involved with Netscape when we had a lot of market share, and then we lost most of our users. And this recent turnaround and this interest in Firefox has been really, really exciting to see. I think part of it is, is really the feature set. I mean, the pop-up blocking and the tab browsing, you know, got an initial community of people hooked on it and they loved it so much that they just started telling their friends about it. And seeing that whole process of you know, recommending it to friends, I think, had a huge affect on driving adoption and driving users into Firefox.

Olivia Ryan: And so, do you think the grassroots efforts, the things like Spread Firefox, the ideas that users come up with for marketing have been instrumental in attracting other users?

Scott MacGregor: Yeah, I think it's been huge. For me personally, I think that's one of the main reasons for our success has been the grassroots campaign of people telling other people about Firefox.

Olivia Ryan: And why do you think Firefox is the sort of, only product that's featured in that particular marketing campaign? Why isn't there like, a Spread Mozilla or Spread Thunderbird, or—?

Scott MacGregor: I think—that's a really good question. You know, part of it is, our organization is pretty small and it's hard for us to juggle a lot of things.

Our resources are stretched pretty thin. The other thing is, I think Firefox, it's a little easier to move people to a new browser than to move people to a different email client. Email can be a very personal thing, and you're always afraid you're going to lose it. You know, with Firefox and the browsing experience, it's a little easier to switch browsers. I think that's why.

Olivia Ryan: Do you think people might want to see like, a Spread SeaMonkey or a Spread Camino, or something like that? Or is Firefox just—

Scott MacGregor: I think it'd be great to see that. I would love to see Spread Camino and Spread SeaMonkey and Spread Thunderbird and just see the community, you know, get involved in that. I think that'd be super.

Olivia Ryan: How would you—this is kind of broad, but how would you list Mozilla's priorities and how do you think they've changed over time?

Scott MacGregor: Well, I think right now our priorities are really about doing what's best for users. And I think that's a unique position—that's a position unique to being a non-profit organization is, we don't have to worry about, you know, monetizing things. We don't have to worry about stockholders, you know, revenues at the end of the quarter. To be able to focus solely on users and the user experience is really unique and I've never seen that anywhere else. So, I think that's a really special goal that Mozilla has, is being able to focus on our users and doing the right thing for them.

Olivia Ryan: And do you think even that has shifted over time? Like, do you think the focus—would you say the focus now is more on end users than say, it was in '99, or?

Scott MacGregor: Yeah, you know, in '99 when we were open sourcing the Mozilla project it was really about, you know, here's an open source project for developers to work on. It wasn't intended to be an end user consumer level product. The initial vision was, companies like Netscape would then take advantage—would then build on top of the Mozilla product to make consumer products. So the original goal of Mozilla wasn't to put software in the hands of end users, but to allow other companies and organizations to do that. Where now we are the primary vehicle for consumers.

Olivia Ryan: And do you see this as a kind of a shift in the open source community as a whole? Or do you think it's kind of more specific to Mozilla? Or do you see Mozilla sort of leading this?

Scott MacGregor: Well, I do think Mozilla is playing a very large leadership role in that transition. You know, I've seen, you know, Linux is another example of software which is trying to re-engage itself in a desktop, consumer-type

environment as well. So I do see that as kind of a growing trend with open source software projects.

Ken Albers: Why or how do you think that happened? How did you move from something geared towards developers to something geared towards users who have no concept of how or why anything works?

Scott MacGregor: Well, I think that the main driving factor was, for that, was with Netscape really, when Netscape was no longer in a position to be involved in developing the project, you know, that Netscape browser went away and then suddenly it was just Mozilla. It's like, well, now, what's our identity going to be, you know. If we want to actually help users, focusing on being a project for developers isn't going to get us there. And fortunately, at that time, Firefox and Thunderbird were getting started as you know, consumer-oriented, standalone browser, standalone mail clients, and the timing worked out very well for us to make a transition to the consumer space.

Ken Albers: Was that something you guys were consciously thinking about? You know, at that time, a lot of the open source products were really hard to use. You had to have at least a basic technical background in order to use most of them. Was that something you guys were thinking about, as, rethinking how open source could work?

Scott MacGregor: Yeah. I don't think we were thinking about it in terms of open source at the time so much as the browsing experience for most users was just getting really bad with pop-ups and spyware and you know, same for email. So, it was really, how do we make that experience better for people and not about—do we change the direction of open source projects. That kind of just came along with it.

Ken Albers: So it just happened you were in the right place, right time, as far as open source went, but your goals were really product and user oriented—personally—with Thunderbird and Firefox.

Scott MacGregor: Yeah.

Olivia Ryan: Kind of back to the marketing for a moment. The Spread Firefox website said that it was founded on the same principles of the community involvement, the drive for development of Firefox. Do you see the grassroots marketing techniques as sort of a larger open source movement, that it shares with open source software?

Scott MacGregor: Well, you know, I think Spread Firefox was the first instance of open source marketing that I had ever seen, at least. And I think that's one of the things that makes it special. I really do think it's breaking ground.

And I hope to see that grow with other projects. I mean, you mentioned Spread Camino, you know, Spread SeaMonkey, Spread Thunderbird. But you know, outside of the Mozilla open source project I'd love to see open source marketing for open source projects start to really grow as a project in and of itself. I think that'd be really cool.

Olivia Ryan: And do you see maybe, any other examples of open source principles or techniques being applied to other areas of production beyond marketing and software?

Scott MacGregor: So marketing, software. I can't think of anything off the top of my head.

Ken Albers: Or do you think it's even possible, just, you know, in other areas in society...

Scott MacGregor: Like away from engineering and away from product. I believe MIT started open sourcing their—well, open sourcing their classroom materials, for some of their classes. I don't know how well that went over, but you know, there's an example of bringing open source to academia and actually putting class notes and materials for classes out on the web for anyone, not just MIT students, to access. So there's an interesting idea, you know, of open sourcing classroom material.

Olivia Ryan: Have you contributed either as a volunteer or an employee to any other open source projects?

Scott MacGregor: No, only Mozilla. They keep me very busy.

Olivia Ryan: And, you said you started right at Netscape right after you graduated.

Scott MacGregor: Yeah.

Olivia Ryan: So you don't have experience working in any commercial products or anything.

Scott MacGregor: Well, Netscape and AOL.

Olivia Ryan: Oh right, because you were there before. So, how do you think the management or the organization of a commercial product differs from working on an open source product?

Scott MacGregor: Yeah, you know, it was certainly very challenging back in those days at Netscape. Our market share was evaporating very rapidly. We were forced to make the browser free. So the marketing and the management really had to be focused on how can we monetize our existence within the organization in some way. You know, and that certainly put pressures

and stresses on everyone involved when it came to designing the browser. And going back to you know, being part of an open source project in Mozilla, we don't have to worry about that, we don't have those stresses or those tensions anymore. We can just focus on the users. And that—it's just a huge feeling to know you can do that. It feels really good.

Ken Albers: Do you find too, that you—it just makes everything more efficient for you—you know, you work faster? Or things just happen more quickly? Or, does having maybe joint decisions sometimes impact the process as well, by slowing things down?

Scott MacGregor: Well, I think not having these stresses and tensions you know, that a commercial company would have, can only help. It definitely helps us move faster because you get—at least I get more of a sense of a level of reward when I know I'm helping people, you know, this is going to benefit them, they're really going to enjoy this. And that fuels me to continue to work harder.

You know, at the same time, with an open source project, you know, communication is very important and you will pay some price where things will slow down to make sure you're communicating with people who may not physically be in the same building or the same room as you. They could be working and collaborating with you from somewhere else around the world. But I think that small cost of communication is outweighed by the benefits of open source in that collaboration that occurs.

I think for me, it's slightly off topic, but I love to tell the story. We have builds that come out every night, of Thunderbird and Firefox. So all the latest changes that all the developers have been working on during the day, you know, a new version of the product basically comes out every night. And we have thousands of testers in the community that their big thing is when they get up in the morning, all over the world, they're anxious and dying to get ahold of one of these builds so that they can go play around with what's new. And that just amazes me how every day, you know, their thrill is to go get the new Firefox build and start, you know, playing around and seeing what's new with it. And that's the kind of passion that I really enjoy with the project, is working with people like that.

Olivia Ryan: Do you consider open source a public service?

Scott MacGregor: A public service. I'm not sure I follow. That would be like--?

- Ken Albers: The work you do in producing open source software do you think it's public service in the sort of you know, not necessarily wholly selfless, but you know, making a product for the general benefit?
- Scott MacGregor: Greater good.
- Ken Albers: Yeah, the greater good, that sort-of thing.
- Scott MacGregor: Yeah, I look at it that way. Just the fact that giving people a choice I think, is really the—is also part of the public good. You know, making sure people have choices in what they use for browsing the Internet is important.
- Olivia Ryan: So what do you think Firefox, the popularity of Firefox might do for open source as a whole?
- Scott MacGregor: Well, I think when you look at the success Firefox has had, success breeds success. And as it becomes more popular, more people are going to be interested in contributing to the project. And as you start to contribute to Firefox you start to learn about, well, what does it mean to be an open source project, what are they, how do they work. And I think that can only spill over and benefit other projects as well, as it brings more people—it brings more awareness about open source software to people. And with that awareness comes more participation.
- Olivia Ryan: So what do you think the—what's the future of open source?
- Scott MacGregor: Hopefully we'll keep growing, you know, particularly with Firefox. More people will realize it's out there, and will enjoy it as a product. With other projects, hopefully we'll continue to set a trend for companies. I mean, it doesn't have to be a, you know—companies can initiate an open source project as well, or take existing projects and open source them and leverage the open source community to develop them. So, I hope to see that more in the future, more mainstream products becoming open source based products.
- Ken Albers: What do you think will make them successful or not? You know, both in terms of the products they produce and how they go about producing them.
- Scott MacGregor: I think probably the biggest key to success will be you know, developing and building the community. We're very lucky and very fortunate to really have a great, a passionate community at Mozilla. And I think any open source project is going to have to have a community to build and develop around it. So, that's probably the biggest factor for determining success.

