

Linus Torvalds – Interview Part II

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Jim Zemlin: Let's talk a little bit about patents. Certainly there have been allegations about how Linux is infringing on certain organizations' patents; recently there was even a patent suit filed against Novell and RedHat related to patents.

Tell us a little bit about your perspective on either those specific issues or patents in general.

Linus Torvalds: Patents are nasty. It's kind of hard to really say a lot more than the fact that patents on ideas in general are a huge mistake and the whole notion that you can have patents, business models and software is pretty broken to begin with.

And at least in the EU so far they've been able to fight that whole notion of patenting software. In the U.S., I think there are certainly more than just open source people who are realizing that software patents are a huge mistake.

Jim Zemlin: The argument for patents is that it provides an incentive for inventors or innovators due to the exclusivity they grant to create more innovation.

Linus Torvalds: Well, that's actually the second argument; the first argument for patents is that it's meant to be a way to enhance human knowledge and technology, right? Then in order to do that, you then do patents that might incentivize the people who are inventing things.

The problem with that, and there are economists who also are very strong on this opinion is, patents don't actually work that way. Especially on software, patents do not incentivize anybody and they do not actually help inventions; quite the reverse.

So, if they don't actually help the fundamental reason why patents exist in the first place, patents on software should not be allowed. And it's not about making people rich; it was never about making people rich. It was about making the knowledge available publicly and the limited protection

that patents give has always been about making incentives for new development.

And it just does not work in software, and the reason it doesn't work in software is any complicated piece of software contains so many pieces that nobody could even know whether, maybe, one out of a million different things might be under some completely trivial patent.

So, everybody just digs their head in the sand and basically ignores the issue and all the commercial companies try to gather their own patents just as a defensive weapon, not because necessarily they want to use them for offense, but because that way if somebody else comes and knocks on their door they can say, "Hey, but I have this patent, and, by the way, I'm sure some of your lines have problems with that patent. So, let's be friends and not bring up patents at all."

Jim Zemlin: So we've created a cold war-like situation?

Linus Torvalds: Yes and no, and the no part comes from the fact that now the big issue is all these patents trolls where the cold war-like situation doesn't work at all because they don't have any code or any product or they don't sell anything at all.

Jim Zemlin: It's the rogue state?

Linus Torvalds: So, they're the – yeah, they're kind of the terrorists that you can't bomb them back because there's nothing there to bomb. There are these individuals that don't have anything to lose, and that breaks the whole cold war model and that seems to be one of the reasons that even big companies are now starting to realize that patents and software is a really bad idea.

Jim Zemlin: There's been arguments made also that patents are far more in favor of large organizations with lots of resources to go and get as many patents as they can and the community, or the open source development world, just simply doesn't have those resources and so that the whole patent system somewhat favors this corporate world.

Linus Torvalds: Well, I think it does favor the corporate world in the sense that if you see patents as a cold war thing, it clearly helps to be big and have lots of patents because they're the equivalent of having lots of

nukes, and small companies and individuals can't have nukes; it's practically not very accessible.

So, the model does favor large companies. On the other hand, again, that's where the rogue state problem comes in. Large companies, in some ways, are more vulnerable to being blackmailed over patents, so when you have patent trolls, the trolls usually want to go after the big money, so they actually go after the large companies and now it doesn't help to have lots of patents.

Jim Zemlin: Not to extend this metaphor too much, but is the open source community, or are many open source projects to be more specific, sort of aligned with the Russia or the U.S. in this cold war? Do you feel like there are enough allies on the side of Linux, for example, that patent problems are really not an issue because of these very strong allies?

Linus Torvalds: I don't think we necessarily have quite enough alliances there. On the other hand, if you look at the last patent lawsuit against Novell and RedHat, it was by one of the rogue states. So, maybe there are enough alliances that patents are not a huge problem with regards to other large companies that actually use patents themselves.

But the patent troll problem ends up being visible even for open source; of course, most of the time, especially with smaller open source companies, the patent trolls wouldn't go after them, so.

Jim Zemlin: But this is nothing new to software, right? I mean, there've been patent trolls for years who've taken action against proprietary software companies for decades.

Linus Torvalds: Right. This has nothing to do with open source, no. No, I mean, this is very much a software patent problem in general. I don't think any other issues with patents have really anything to do with open source; I think that the open source people are perhaps just much more aware of them and it took commercial companies longer to realize because the commercial companies didn't actually worry until the patent trolls started coming around.

Jim Zemlin: So, from that perspective what do you think of Microsoft say, rattling around patents, given that on the one hand patents don't

really help them out, but on the other hand they're out there talking really specifically about Linux to some degree relative to these so-called patents that somehow Linux is infringing upon?

Linus Torvalds: So, I think that Microsoft really sees patents as a marketing thing and I think that for two reasons: a) it is what they seem to have used in the past. So far I don't think Microsoft has ever sued anybody over patents. They have been sued for patents by other people, but I don't think they've – not that I've gone through any huge amount of law cases, but I don't think they've generally used patents as a weapon.

But they're perfectly happy to use anything at all as fear, uncertainty and doubt in the marketplace and patents is just one thing where they say, "Hey, isn't this convenient? We can use this as a PR force."

Another reason why I don't think Microsoft really seriously would go after patents is when you're a convicted monopolist in the marketplace you really should not be suing your competitors over patents. I think that most Microsoft lawyers would say, "You know, let's not do that; that sounds insane."

They're perfectly happy to use patents in the détente and cold war sense.

Jim Zemlin: To continue talking a little bit more about Microsoft, have talked about how they want to improve interoperability with Linux. What do you think of those efforts?

Linus Torvalds: I have such a hard time judging. I don't know. Microsoft says many things and they may even mean them, but the fact that the person who says them means them, does that mean anything in the larger Microsoft picture? I don't know. That seems to always be a bit unclear.

I think there are people inside Microsoft who really want to improve interoperability and I also think there are people inside Microsoft who would much rather just try to stab their competition in the back.

I think the latter class of people have usually been the one who won out in the end, but – so I wouldn't exactly trust them. But I think they're sincere; it's just that a part of them, at least, is sincere.

Jim Zemlin: Like many big companies.

Linus Torvalds: The left hand doesn't know what the right hand is doing.

Jim Zemlin: Speaking of that, let's talk a little bit about Open Solaris and Sun Microsystems. Any thoughts on Sun's community development plans or advise, for that matter, given that they've stated that they want to build an open source community around Open Solaris and obviously you are a great example of an incredibly robust dynamic community?

Linus Torvalds: It's generally hard to build a community around a commercial entity that also wants to be in control because everybody else around that commercial entity will always feel like they're at the mercy of Sun.

And I'm not even going to go into Open Solaris because, quite frankly, I don't even care. But I think you see some of that with a project that is considered to be completely open source and has been for a number of years, namely Open Office where the fact that Sun wants to have copyright assignments and exclusive control over the license ends up being something that actually drives away some developers.

Jim Zemlin: Some would argue that they're a very good open community player: Java, Open Office they would point to, they would point to Open Solaris which is opening up a huge amount of their intellectual property. How would you respond to that?

Linus Torvalds: The reason I'm ambivalent about Sun is that they do a lot of things right and they traditionally have done a lot of things right. I mean, and they do point to that fact that they're open source mentality actually goes back quite far and one of the things they and others point to is NFS itself where it may not have been open source, but it was an open standard and being open was actually what made NFS succeed in the first place.

And that was definitely a Sun thing, being open. So, in many ways, Sun has done a lot of things right. At the same time, they seem to often have trouble going the full last step. So, Java is an example of that where they have now – I think they've released another GPL Version 2 basically a year ago; I forget the exact details.

And they finally did that and it is now really open source, but at the same time it took them something like six years to get to that point and before that they tried to push a failed license where they did try to maintain control and they always claimed the best of intentions. They claimed that they needed to be in control because they didn't want to fragment the market and there was always this kind of rationalization for why they had to be in control.

Jim Zemlin: But in some cases that has undermined the greater goal which was building the community.

Linus Torvalds: Right. Definitely I think the same is true right now when it comes to projects like Open Office where, again, there are rationalizations for why you have to assign copyrights to some and they may even be valid, but it does undermine the community because it means that there is a first among equals.

There is – Sun ends up having rights that nobody else has – even if they then act perfectly and they really behave well, just the fact that they have special rights makes people legitimately feel like they are second class citizens and that's not how you build a community.

One of the things I did with Linux from very early on was when somebody sends me changes, they retain all copyright in those changes. Nobody has – I don't have any more rights than anybody else has except in the sense that I've written more code than most people, but – I say most people, not all people, that your rights when it comes to Linux are directly what you put into it.

Jim Zemlin: Let's talk about one more thing relative to Open Solaris or their open source projects. You know, there's competition in marketplace. IBM wants to sell their Linux systems, HP wants to sell their Linux systems, Sun wants to sell their Solaris systems on their high margin server products.

But there's also competition in the open source world and let me describe that. For a developer mindshare, right, for participation, are you, Linus, personally, are you a little competitive?

Linus Torvalds: I'm more than a little competitive. I'm a huge believer in competition. I think it's really important, as a way to motivate people.

It's certainly how I get motivated. I mean, it's one of the things that motivates me, right? I want to be the best.

And, in fact, I'm more interested in internal competition than external competition. So, for example, when I say I want to be the best, I don't even compare Linux against Solaris; that's the kind of external competition that to me is secondary. I don't think it's at all as interesting.

I want to be the best in the sense that I want to be the best in Linux. If somebody else comes up and basically says, "Hey, I can be a better maintainer than Linus," that would motivate me like no end. That's where I want to show everybody that, 'No, I'm the best maintainer,'.

Jim Zemlin: That keeps you motivated?

Linus Torvalds: That absolutely keeps me motivated, yes. I work weekdays, I work weekends, I work 52 weeks a year. I don't want there to be any question of who's the best maintainer.

And at the same time, I actually also do want to encourage competition. Competition doesn't have to be something where you are very antagonistic. So, quite often the best competition is things where you actually work together, but there's certainly a sense of 'okay, I want to be as good as that guy,' even though you're both working on the same thing.

So, I actually enjoy seeing all these other kernel trees happening. All the vendors have their own. If a vendor has drivers that I don't have, I get really upset with the developers who decided those drivers are not good enough to send to Linus. I'm like, 'Why is my kernel tree worse than a vendor kernel tree?'

We had this exact issue come up just a few weeks ago – with the kernel side, where the standard kernel did not come with certain drivers that people almost take for granted now. And it turns out people felt those drivers weren't good enough quality-wise to make it into my tree. That drives me wild.

Jim Zemlin: But in a sense, over time, you win because you set the bar high and you encourage people to get it into the main line.

Linus Torvalds: One of the problems is we have people who have so high criteria for what is acceptable or not that it scares away people who want to do new code and do new experiments.

We mustn't set the bar that high. New code, new drivers, there will be problems and I'd rather take them and then improve them than expect driver authors, especially when they stand outside the main tree and feel kind of like outsiders even though maybe they really are part of the same whole development community, but they feel like outsiders because their driver hasn't made it into the tree yet.

And then asking them to jump through hoops and make their driver perfect when they're standing there alone and don't have help; I think that's unfair. And there are people in the kernel community that feel that way that things have to be just right before you can accept them and I'm much more of a laissez-faire kind of person. We don't want to accept bad things, but on the other hand, hey, everything starts from less-than-perfect roots and it's much better to accept things that work but may not be perfect and then improve on them when we can all improve on them and all the different vendors can fix the small nagging issues they have instead of keeping them at arm's length until they're perfect because maybe they'll never be perfect without help.

Jim Zemlin: Hopefully the Broadcom engineers are listening to this.

Linus Torvalds: Yeah, I don't think so. I'm not very optimistic about Broadcom.

Jim Zemlin: Hope springs eternal on my end.

Let's talk a little bit about some deeper issues and long-term future things related to Linux and what I mean by that is specifically your legacy.

While you're the best today and while you compete to be the best today, you know, what happens over time as, you know, Linus...

Linus Torvalds: When I get Alzheimer's? Are you saying that {laughter} I'm already starting to lose it?

Nobody should be worried about that. I mean, certainly we have one of the widest development bases of pretty much any open source project. It's kind of interesting to actually see how many developers the kernel project has.

And I'm actually happy to say that another project that I helped start seems to follow the same pattern where the culture really encourages lots of people being involved.

Jim Zemlin: I'm not asking the question so much from a people are concerned about it point of view, I'm asking more from a 'what do you think'? I mean, what would you like to see Linux become, when you're not around?

Linus Torvalds: I really don't have plans like that. I kind of worry about two things; maybe worry is the wrong word to use because I don't really worry about them, but I concentrate on two things: one is the details. I'm a big believer in the devil is in the details and if you get all the details right, the rest works itself out.

Don't worry about the big questions. If you can just solve every single nagging detail, the big questions will have solved themselves.

I really take a very pedestrian approach to a lot of technical issues that I may look a few months out, but I never look five years out. I just don't even think it's worth it and very few people can even make a good prediction five years out.

But more importantly if you look too far out, you'll stumble over the immediate issues. So, when it comes to the actual technical details, I look a few weeks, maybe a few months out.

And then the other thing I worry about is kind of the general development flow and model and that's something where I can take a longer-range view and worry about, 'Okay, does that actually affect how people interact?' and that had some affect on when we started doing the whole sign-off procedure where we added in the kernel, the developer certificate of origin sign-offs.

Part of that whole discussion and part of how we solved it was making sure that it doesn't hold up the flow and the whole way development gets done is sane and doesn't get slowed down.

And that's as much a software issue and I don't claim to look five years out, but I think that if as long as you maintain the basics there in the same way, things will work out.

Again, take care of the details in the short-term and for the long-term, just make sure that you have a very wide developer base and you actually encourage new people to come in and join that developer base so that it remains very wide in the future.

And I wouldn't worry about me or Andrew or Alan or anybody else going away because if you have a wide developer base, there's always somebody.

Jim Zemlin: Right, right.

Let's talk about some technology issues sort of from a broader marketplace point of view and when I say marketplace, I'm more talking about, you know, sort of technical innovation over time; who uses what type of computing.

Let's start with the Linux desktop. Some people find it really important, some people make predictions that it's going to happen this year or we're going to see it happen next year, it's unfair that Microsoft has a monopoly position on this desktop, Linux is really, you know, the incredible alternative.

What are your thoughts on the Linux desktop and its broader adoption?

Linus Torvalds: Well, I don't know about broader adoption, but the Linux desktop is why I got into Linux in the first place. I mean, I have never, ever cared about really anything but the Linux desktop.

The server market was a lot easier to get into. There's just a few loads, they're fairly simple, they're fairly well-understood, people are – have much less inertia in upgrading a server than they have in upgrading their desktop. But I have never, ever even run a Linux server and I don't even

want to; it's not what I'm interested in. I'm more of a desktop guy. I've always used Linux as a workstation person.

So – and I think I see that as not just me. I think a huge amount of the developers see Linux the same way because it turns out that while, yes, maybe servers is a huge market, when you actually look at developers, what developers interact with all the time is their workstation, their desktop and that's the area where you really eat your own dog food and where you really end up seeing the fruits of your labor.

So, I think a lot of developers get very attached and emotional about their desktop issues and I don't worry at all about the desktop on a technical level because I think that's the first thing that most kernel developers will really put their efforts in.

Jim Zemlin: There's been criticisms about the Linux desktop as to why it hasn't been adopted by the mainstream user and that is that the nature of the development process, the sort of technical scratch your own itch as an engineer doesn't make usability a feature.

Linus Torvalds: That may be true to some degree, but I actually think it's a small detail. I think the reason the desktop is special is that the desktop really is so special and so much harder than any other market.

Pretty much any other market you have there's a very clear model of what it's going to do. If you have a server, you know a priority of what that server is going to do. Maybe you'll expand on it later on, but if it's serving email, it has a very clear thing that it's doing in life.

The same is mostly true in the embedded space although clearly in the embedded space it's these thousands of different niches, but each of them tends to have a fairly clear thing that they're doing.

The desktop is special. Everybody has a different idea of what the desktop is going to be. You have lots of people coming from Windows who just – they know what a desktop is supposed to be - Windows, right?

You have people coming from Mac and they know what a desktop is supposed to be and it has to have that menu bar at the top and if you don't have the menu bar at the top, it's not a desktop, right?

So, everybody has a different idea. Everybody also has different hardware. The desktop is also where all the hardware really exists. Servers have 1% of the hardware that the desktop has in terms of different drivers and things like that. You don't find webcams on servers generally. You don't find oddball IDE drives on servers.

So, the desktop is just much more varied and, at the same time, the desktop is also the thing where people get really upset if something changes, so it's really hard to enter the desktop market because people are used to whatever they used before, mostly Windows. And if you act differently from Windows, even if you act in some ways better, it doesn't matter; better is worse if it's different.

Jim Zemlin: So, is open source, as a development model, an effective way to create desktop given that?

Linus Torvalds: I think it is, but I also think the desktop just fundamentally takes a long time to enter and it certainly takes longer than people, including me to some degree, have ever expected. There's just this huge inertia in that market.

But at the same time, one of the things that worked against open source, I think, in the desktop was that when things are really changing fairly rapidly which the desktop used to do during the 90's, there was a lot of new features. The whole way people interacted with the desktop went from having a few programs to the whole web browsing thing and people's use of the desktop really changed.

When that happens, when you have lots of change, it's easier for one company that drives it, in this case mostly Microsoft, to kind of drive the market and at some point, and I think one the reasons people are having issues with Vista now, is that it's much harder to – for one company - to kind of change the market and when the market has matured.

And I think the desktop market, to some degree in the last four or five years, has started to mature in the sense that people today are not probably using the desktop all that differently from what they were five years ago which didn't used to be true.

Jim Zemlin: So, in some sense that sort of guidance that a single company has given is now taken away over to the moving side, to agility that's needed.

Linus Torvalds: Well, it's not even so much agility; I think agility is good in any market. What is, I think, happening is the desktop, as it's maturing, it's becoming, I wouldn't say less relevant because it's much more relevant, but it's more of a commodity, so it's – the same way PC hardware became a commodity market, the desktop software has become a commodity.

People take it for granted. It's supposed to do one thing; you don't even want it to do anything else, really. And you may have niche applications that – on top of that commodity. But the desktop itself is something that people aren't necessarily interested in new features and I think that actually is something that helps open source because now you can't have one company that kind of tries to move the goal post because if it keeps trying to move the goal post, that's just going to irritate that company's own constituents.

Jim Zemlin: Let's continue that conversation to talk about it even broader and this is in the sense that there have been critics of open source—whether it's on desktop computing or in other areas—that say, “You know, open source is really good at being a copycat, but they don't do anything.” How would you respond to that critique?

Linus Torvalds: I think it's true to some degree. It's definitely the case that when the whole development model basically involves having lots of different people pulling in their own direction, the end result is not going to be something which goes suddenly in one direction; it's not going to do a quantum leap in one huge direction because everybody's pulling in their own direction and it's moving, but it's kind of taking a fairly middle-of-the-road kind of approach where you try to balance out the interests and needs of different companies and different individuals.

And that's kind of not very conducive to what some people want to call innovation.

Jim Zemlin: But at the same time it's a lot like science where you're sort of laboring...

Linus Torvalds: Right. And that's what I kind of wanted to get up to is that innovation is way too over used a word and people seem to think it's something wonderfully good and the fact is it was Thomas Edison who said, "It's 99% perspiration, 1% innovation," right?

Innovation is not that important and it shouldn't be because in the end what you want to do is you want to get the work done and 99% of that is really – it's not about innovation.

Jim Zemlin: Yeah. In some ways, if you look at an area where people want to see innovation power management, right, to retain – for environmental purposes or just financial purposes, this is an area we're sort of slugging along and this is where open source can be very successful.

Linus Torvalds: People expect open source to – well, maybe not expect, but open source and Linux in general has gotten the name of having very fast development and that's not actually even true. It's not that developing fast, it's more that it's very wide and it's across the board.

And it's across the board exactly because you have thousands of companies involved and each of those companies tends to push their own agenda so you have lots of development happening at the same time, so in that sense it's fast. But on any particular front, it's not necessarily fast.

So, the whole open source model, I think, is much more like science and much more of a – it's incremental and it turns out incremental is actually much better than innovation because innovation is kind of - you're jumping all over the map, and once in a while you hit the golden nugget, whatever, I have no idea what you hit.

But if you just incrementally improve on something, you will get there eventually. One analogy – the science one is one of my favorites - but one analogy is also the auto industry 40 years ago and how non-innovative Japanese companies that just plodded along, how they were looked down upon by the true innovators in the U.S. auto industry.

And look – who was it that actually ended up changing the auto industry?

Jim Zemlin: It was the incremental improvements over time that really were the innovation.

Linus Torvalds: Right. Yeah, yeah.

Jim Zemlin: Let's talk to conclude about the future. Where do you see Linux – and I know you don't think too far ahead about this, but I'm going to prod you to say five years from now.

Is the world Windows and Linux? Does the operating system become irrelevant because everything's in a browser? Is everything through a mobile device? Is there a new form factor that comes out of mobile tab? Where do you see things going?

Linus Torvalds: I actually think technology in the details may be improving hugely, but if you look at what the big picture is, things don't really change that quickly. We don't drive flying cars. And five years from now we still won't be driving flying cars and I don't think the desktop market or the OS market in general is going to move very much at all.

I think you will have hugely better hardware and I suspect things will be about the same speed because the software will have grown and you'll have more bling to just slow the hardware down and it will hopefully be a lot more portable and that may be one reason why performance may not be that much better just because you can't afford to have a battery pack that is that big.

But I don't think the OS market will really change.

Jim Zemlin: Virtualization. Game-changer? Not that big of a deal?

Linus Torvalds: Not that big of a deal.

Jim Zemlin: Why do you say that?

Linus Torvalds: It's been around for probably 50 years. I forget when IBM started offering virtualization on their big hardware. Maybe not 50 years, but it's been all around for decades and it's very interesting in niche markets - I think the people who expected to change things radically are just fooling themselves.

I'd say that the real change comes from new uses, completely new uses of computers and that might just happen because computers get pushed down and become cheaper and that might change the whole picture of operating systems.

But also, I'd actually expect that new form factor is in new input and output devices. If we actually end up getting projection displays on cell phones, that might actually change how people start thinking of hardware and that, in turn, might change how we interact and how we use operating systems. But virtualization will not be it.

Jim Zemlin: Everybody calls everything Linux. What is Linux? And this may have something to do with standards in terms of how people define a Linux desktop or a Linux server, but, you know, the fact is and you own the Linux trademark, you have allowed broad usage of that term. Lots of people can call lots of different things Linux.

Linus Torvalds: I think it's wrong to try to kind of compartmentalize it to Linux is just a kernel or Linux is so-and-so.

The kernel is useless without all the programs running on top of it. Are the programs running on top of it Linux? No. Open Office is still Open Office, even when it's not running on Linux. But at the same time you really shouldn't pick out one part. I mean, a huge part of the whole Linux thing is all the development and all the programs that went around the kernel. So, just limiting it to the kernel is wrong too.

Jim Zemlin: But people will say when they think of Linux they think, "I use Windows, I use Mac, I use Linux," which is the kernel and everything that's around.

Linus Torvalds: And everything around it, yeah.

Jim Zemlin: But even there, people can define that in different ways so that different Linux versions are incompatible and then you start to get to a point where people are saying, "Well, I was using Linux but this Linux application didn't work on my Linux and it works on that Linux," and it becomes this sort of confusing world.

What do you think of that? Do you think that's good? Do you think that's bad?

Linus Torvalds: I don't think it's good or bad; I think it's reality. Reality {laughter} is confusing and when we use a word like Linux in different contexts it means different things. As a programmer, it tends to mean just the kernel because when you look at it as one program and actually as a code base, then it's the kernel.

But then to a person who really compares it to Windows, then it's a whole infrastructure and it's all the companies that go along with it and maybe it's the philosophy and everything else, so.

Jim Zemlin: So, most people think of it that way and from that aspect, do you think it's good for Linux to have a reasonable common definition of server or a desktop in order to compete with Windows? In order to allow people to target Linux in a federated way as opposed to just target specific versions of Linux from that perspective?

Linus Torvalds: I think we need to make sure that we don't fragment the market unnecessarily. On the other hand, it's clear that all the vendors always want to have their own identity and they're never going to sell the exact same thing and so two different versions of Linux are still going to be called Linux but they're not going to be identical.

So, it's balance, right? I think actually we're much better off now than we were, say, ten years ago. People talk about the KDE versus Gnome desktops and how programs look different even when they work on the same desktop. One may have – you've been using the KDE widgets and the other one with Gnome ones and they don't look the same, but back ten years ago we had the whole SysV unit versus BSD unit and you simply could mix and match almost anything in the whole system because that was such a big deal and none of the programs from one world expected things to be in completely different locations than they were in the other one.

And so we've already moved up the kind of common base much, much further than it used to be and there will always be things that are different – I mean different versions.

Jim Zemlin: The challenge is finding the balance.

Linus Torvalds: Right. I don't think we'll ever be in a place where everybody's happy, but I do think that's pretty much just inherent to different people have different priorities.

Jim Zemlin: Any final advice for an organization or an individual that wants to get involved in working on the Linux front?

Linus Torvalds: I get the question of "Where should I start?" fairly often and my advice is just don't even ask that question. It's more like if you're not interested enough in one particular area that you already know what you want to try to do, don't do it. Just let it go and then when you hit something where you say, "I could do this better" and you actually feel motivated enough that you go from saying that to doing that, you will have answered that question yourself.

THE END