Open source - why sharing software and hardware makes technology better for everyone

SLIDE: Title slide

Introduction

What a great presentation by Darren! *piece in here picking up point from Darren's presentation*

Thanks everyone, I'm Kathy Reid and I'm both the Treasurer of Creative Geelong, here in Geelong -a group dedicated to furthering the creative industries in the region, and I'm also Vice-President of Linux Australia, a group dedicated to open source in Australia - and I'll explain what that is in a minute.

I have to warn you, I am a *geek*, but don't run away screaming just yet!

What is open source?

SLIDE: What is open source

Has anybody used freeware before? Where you can download the program and then maybe use it only so many times, or it has limited features that you can unlock only if you buy the full version?

Right, so that's *not* free software - it's free as in *free beer*, but it's not free as in *freedom* or *liberty* - and that's the key difference with open source.

SLIDE: Look inside

Open source software and hardware is designed so that you can look inside the code, or the design, or the schematic. You're free to change it, and depending on the type of license that the work is released under, you might be obligated to pass your designs - your derivative works - back on to others to be utilised.

And so we can see again some of the principles here of the *sharing economy* that Darren was talking about.

Examples

You might be thinking that yeah, OK that's nice, but isn't open source poorer quality than software that is proprietary or that you pay for? What mechanisms are in place to ensure quality? And that would be a fair question - the quality of open source software and hardware varies - just as much as say the quality of an AirBNB listing or an Uber ride. Mature open source projects will often have strong and robust quality assurance mechanisms in place.

In fact, some of the most prevalent software and hardware in the world is open source.

SLIDE: WordPress

WordPress for instance, powers about 1 in 4 websites across the world - and if you think of how many hundreds of millions of websites there are - well then there's at least 10s of millions of WordPress sites out there.

So, WordPress code is developed by people all over the world - you're

absolutely free to go in and have a look at the code, see how it works, pull it apart, and if you want to, make changes, make it better or tailor it to suit your needs.

SLIDE: Raspberry Pi

Are there any Raspberry Pi fans in the house? Great!

Raspberry Pi is an example of open source principles applied to hardware - open hardware. So instead of code being open source, here the schematic and hardware component designs are open and available to build on.

GitHub

SLIDE: GitHub

And just as Darren talked about platforms like AirBNB and Uber in the sharing economy, open source practitioners have platforms to share our code on as well - such as GitHub. So for instance GitHub allows me to look at or copy someone else's code, and then it allows me to submit back the alterations I've made.

Conclusion

So, the implications for open source are far-reaching.

Bugs are shallow

For example, if there's an error or a bug in the code or in the design, and it's open source, it means that many more people can have a look, and identify and resolve the error. We call this the "many eyes make bugs shallow" principle.

Collaborative effort

Open source also makes collaborative efforts easier - for instance instead of people building the same thing - reinventing the wheel if you will, we can each concentrate on building *on* the work of others

Making the future better for everyone

And given the larger and larger role that technology plays in our lives, being able to have more robust technology, that's available for everyone to inspect, and which allows us to better collaborate together will make all our lives better!

[Timed at 4 mins 20 to this point]