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The newsletter of FLOSS UK, the new name for the UK's oldest Open Systems User Group, UKUUG

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News from the Secretariat

Jane Morrison

Thanks to everyone who has paid their subscription invoices promptly. Those subscriptions outstanding will be chased at the end of March and any not paid at the end of April will not receive the June Newsletter.

We now have everything in place for the Spring Tutorial and Conference being held in Edinburgh from 20th–22nd March. We have very kindly received sponsorship monies from Google, Opengear, Monitis, Bytemark and Riverbed Technology Ltd which has enabled us to organise the Conference Dinner at the famous Edinburgh Caves.

We have also been able to keep the event delegate fees low for members via the Gold Sponsor member SUSE.

A full list of talks can be found on the web site together with all abstracts and speaker biographies, see: <http://www.flossuk.org/Events/Spring2012>.

Places are still available: you can book on-line via the web site.

At the time of writing I can confirm that the Intermediate and Advanced Perl tutorials being held from 21st–24th February have once again been popular and the format of 2-day hands-on courses has once again been successful.

Future collaborations for FLOSS UK and Reilly include:

- 12th April: ‘Google App Engine with Python Training Course’ by Paul Barry Bookings are already coming in for this event. Be sure to book your place soon if you wish to attend – see: <http://www.flossuk.org/Events/GoogLeapp>
- 16th April: ‘Presentation Skills Tutorial’ by Damian Conway. Recently announced and already very popular. <http://www.flossuk.org/Events/PresentationSkills2012>

The UKUUG Ltd Annual General Meeting will be held on Thursday 20th September – please put this date in your diary now.

After the successful un-conference held last year in Manchester, the event for 2012 will be held on Saturday 27th October. Please note the date. Details of the venue will be announced nearer the time.

And looking ahead to 2013 the Spring Tutorial and Conference will be held from 19th to 21st March. Again, the venue is still under consideration and will be announced later.

We hope to bring you more events in 2012 and work hard to provide courses of interest to our members.

The next Newsletter will be the June issue and the copy date is Friday 18th May.

For comments about past or future events, or if you have something to say about our User Group or this Newsletter please contact: newsletter@ukuug.org.

Chairman’s Report

Paul Waring

Spring 2012

Our Spring conference in Edinburgh is now only a few weeks away, and the full programme is available on our website. Topics including OpenAFS, Large Scale Configuration, Cloud Computing and many more will be covered over two days of talks, along with a full day tutorial on Chef.

Unfortunately the tutorial is now full, but there is still time to book a place for the conference, and I hope you will be able to join us for another enjoyable three day programme.

Support for local user groups

At previous events it has been suggested that FLOSS UK could assist local user groups by helping them to obtain speakers for their events and assisting with travel expenses. Council has agreed to set aside a budget of £500 for the first year as a trial and will be looking to promote this to local groups in the near future.

Get Involved

FLOSS UK exists to serve its members and we are always on the lookout for people who are keen to get involved in any capacity, whether that be through volunteering to help with organising events, writing newsletter articles, or entirely new activities which haven't been tried before. If you would like to help out in any capacity please do get in touch via office@flossuk.org.

Review of Perl Courses, February 2012

Martin Houston

Intermediate and Advanced Perl courses 21st to 24th February, Imperial Hotel London

Once again Dave Cross presented his Perl courses. This year no beginners Perl but two courses of two days each covering Intermediate and then advanced Perl.

Many of the delegates came for both so had 4 intensive days to get up to speed with how Perl is used in 2012.

The course has come at an exciting time in the Perl world as it coincides with the release of the 4th edition of the famous "Programming Perl" – the 'camel' book. The print edition is not yet in the shops but the electronic version was available and several of the delegates managed to bag a copy for the special offer price of under \$20. O'Reilly ebooks are more flexible than most publishers in that they are not locked down with nasty DRM and you have the right to enjoy the book in all available formats. The PDF is the only one available now but will shortly be followed with Kindle and other ereader optimised formats.

The new edition of the Camel book is long overdue, the 3rd edition was published in 2000 so is now 12 years out of date with where Perl has evolved to.

The Intermediate course covered topics such as: using references to build complex data structures, sorting using custom sort routines including Schwartzian Transforms, writing modules using Exporter and with help from the `Module::Starter` tool. Day 2 then introduced the way Perl does OO programming – a bit of a "bolted on afterthought" but still very powerful. The importance of test driven development was explored. This is something that Perl has lead the way in over the years so there is very little excuse for production Perl code not to have very comprehensive test suites.

Although one of the joys of Perl is the very large choice of ready written free to use code on CPAN as perl is now over 25 years old some of that huge choice is now not the best choice. Knowing in which areas the focus of current development is concentrated is very valuable. Although there are many template systems for Perl of varying degrees of complexity Dave decided to concentrate on the Template Toolkit which is mature and comprehensive enough even to have its own book!

The hectic two days of the Intermediate course finished with Perl's relationship to databases from the low level cross database DBI layer to Object Relational Models using `DBIx::Class` – this is one of the technology areas where a lot of 'action' is in modern large scale Perl programs.

Then with heads still spinning many of the delegates moved on to the 2 day advanced course. This first covered some of the new features in Perls 5.10 and upwards through to the current production version (and the one covered by the just released new 'camel' book) 5.14.

Some of the changes to Perl are very simple but nice timesavers, like the defined or operator `//` or the new `say` keyword (a `print` that appends a newline for you), others such as named regular expression matches promise to make code that is also far easier to maintain. A maxim that Dave liked to use was that we should write our code on the assumption that the person maintaining it would be a mad axe murderer who knows where we live!

With this in mind there was great emphasis on testing of code including using mock objects to provide robust unit testing. Perl now has very powerful tools for statement coverage analysis and profiling of code so that we can both be sure that we are producing the best quality software possible.

The Moose object framework which much modern code now uses was introduced. Being able to define object that can only contain validated data of the correct type makes the job of then using those objects in program logic that much easier. Moose combined with `DBIx::Class` and the PSGI/PLACK web services framework is how a lot of Perl based web services are now constructed so mastering the still evolving technologies is a skill well worth acquiring.

Perl may be a quarter of a century old now but it shows no signs of slowing down in being a useful way to get computers to do your bidding. The new book is out and we have a growth path to the future Perl 6 language too. What is not to like?

Debunking the European Commission's '10 myths about ACTA'

Glyn Moody

Glyn Moody takes us through the EC's document '10 myths about ACTA' and shows us that it has some myths of its own

It's a sign of the European Commission's increasing desperation over ACTA that it has been forced to send out a document entitled "10 Myths About ACTA" that purports to debunk misinformation that is being put around.

<http://trade.ec.europa.eu/doclib/html/149002.htm>

Unsurprisingly, the EC's document is itself full of misinformation. Here are just a few of the more outrageous examples.

1. ACTA will limit the access to the internet and will censor websites.

Read the text of the ACTA Agreement – there is no single paragraph in ACTA that substantiates this claim. ACTA is about tackling large scale illegal activity, often pursued by criminal organisations. It is not about how people use the internet in their everyday lives. Internet users can continue to share non-pirated material and information on the web. ACTA will not limit people's rights on the internet nor will it shut down websites, unlike the proposals discussed in the US (SOPA and PIPA).

There are some convenient half-truths here. Its supporters may claim that ACTA is about tackling large-scale illegal activity but nowhere in the document is there mentioned any minimum level for its operation. That is, potentially, it can apply to the actions of a single person, perhaps even sharing a single file, depending upon the circumstances. The problem is, ACTA's framing is so vague that it's not clear exactly who might be caught by its terms. Whatever the Commission may say now, it's how the text is interpreted later that matters.

After all, if the Commission had really wanted only to tackle "large-scale illegal activity", it would have added a minimum level to exclude the risk that ordinary Internet users would be affected. The refusal to add that minimum level to the treaty – something that would have been easy to do – can only mean that the Commission does indeed want the option of applying ACTA's rules to ordinary citizens, and that its claims to the contrary are simply whitewashing.

The next half-truth is: “Internet users can continue to share non-pirated material and information on the web”. But what exactly is “non-pirated material”? Who decides? Because copyright has become such a complex set of laws that it is rarely clear – even to copyright lawyers – what exactly is or isn’t “pirated”: often the courts have to decide whether something is covered by “fair dealing/fair use”, for example. So how can ordinary citizens possibly know in every case whether what they are sharing is “pirated”?

In particular, there is the situation that the term of copyright varies by country, and what may be in the public domain in one, is still in copyright in another. So what happens when someone in a country where some creation is in the public domain shares it with someone in a country where it isn’t? The continuing injustice of the O’Dwyer case shows us that the US tries to apply its laws everywhere in the world: so does that mean its copyright laws apply in Europe?

Finally, while it is true that ACTA will not “shut down websites” directly, there is another clause that is even worse (Article 10):

Judicial authorities have the authority to order that materials and implements, the predominant use of which has been in the manufacture or creation of such infringing goods, be, without undue delay and without compensation of any sort, destroyed or disposed of.

Now, by definition, a Web site “creates” infringing copies when it sends or streams them to users; so lawyers could – and almost certainly will, knowing lawyers – argue that ACTA provides for the destruction and disposal of any computers whose “predominant use” is copyright infringement. So, no simple censorship, certainly, just the seizure and physical destruction of computers (assuming they are in one of the ACTA signatories), and probably the domain name too.

Not only that, but another section (Article 12) allows for “materials and implements” to be seized without informing the party affected, and even without any guarantee that people can defend themselves afterwards – so much for due process and justice.

3. ACTA is a secret agreement. Negotiations were not transparent and conducted “behind closed doors”. The European Parliament was not fully informed, stakeholders were not consulted.

The text of ACTA is publicly available to all. The negotiations for ACTA were not different from negotiations on any other international agreement. It is a fact that such agreements are not negotiated in public, but with the Lisbon Agreement and the revised Framework Agreement there are clear rules on how the European Parliament (EP) should be informed of such trade negotiations. And these have been scrupulously followed. Trade Commissioner Karel De Gucht has participated in three plenary debates, replied to several dozens of written and oral questions, as well to two Resolutions and one Declaration of the EP, whilst Commission services have provided several dedicated briefings to Members of the European Parliament (MEPs) during the negotiations. Trade Commissioner Karel De Gucht has participated in three plenary debates, replied to several dozens of written and oral questions, as well to two Resolutions and one Declaration of the EP, whilst Commission services have provided several dedicated briefings to Members of the European Parliament (MEPs) during the negotiations. Likewise, the public was informed since the launch of the negotiations about the objectives and general thrust of the negotiations. The Commission released summary reports after every negotiation round and the negotiating text since April 2010. It organised press briefings and four stakeholder conferences on ACTA, one of them even only a few days before the first negotiating round.

This is extraordinarily duplicitous. The text of ACTA may be available to everyone now, but that is after the negotiations have been concluded – in other words, as a fait accompli. Even though the

ACTA discussions began in 2006, the first formal draft that was officially released was only in 2010. The only reason people knew what was in ACTA was thanks to a document posted in Wikileaks in 2008: in other words, if the ACTA negotiators had got their way, ACTA would have been negotiated behind closed doors for four years before the public was allowed to see anything (and had there not been the Wikileaks leak, it's possible that even the draft would not have been released.)

The Commission claims “the public was informed since the launch of the negotiations about the objectives and general thrust of the negotiations”: but what matters, of course, are the details, not the “general thrust”. A few press briefings and stakeholder conferences are no substitute for actually allowing the public to give some – any – input to the ACTA process. But in the many years of negotiations, there was no possibility whatsoever to do that.

And yet even though the public was denied any opportunity to comment on a treaty that would have important implications for their lives, certain privileged groups were not just given access but consulted on their views, as Wikipedia explains:

Apart from the participating governments, an advisory committee of large US-based multinational corporations was consulted on the content of the draft treaty, including the Pharmaceutical Research and Manufacturers of America and the International Intellectual Property Alliance (which includes the Business Software Alliance, Motion Picture Association of America, and Recording Industry Association of America). A 2009 Freedom of Information request showed that the following companies also received copies of the draft under a nondisclosure agreement: Google, eBay, Intel, Dell, News Corporation, Sony Pictures, Time Warner, and Verizon.

Given the fact that major US corporations that stand to benefit directly from ACTA's disproportionate enforcement terms were allowed to shape its details from early on, while the 300 million European citizens who will be subject to those same terms had not a single formal opportunity even to express their views, the Commission's attempt to suggest that this was not a secret treaty, and that the public was consulted, is risible and insulting.

6. ACTA favours IP right-holders. ACTA eliminates safeguards and exceptions existing under international law.

Quite to the contrary, ACTA is drafted in very flexible terms and contains the necessary safeguards to allow the participating countries to strike an appropriate balance between all rights and interests involved, in line with their economic, political and social objectives, as well as with their legal traditions. All safeguards and exceptions under EU law or under the TRIPs Agreement remain fully preserved.

Notice how the “myth” has two components, but that the European Commission only answers one of them. The whole treaty is predicated on the assumption that more enforcement is good: there is no consideration of the collateral damage it might inflict, for example on members of the public. That, of course, is because the public was never allowed to present its views; inevitably, the resulting document is incredibly one sided and biased in favour of the copyright industries.

This can be most clearly seen in Article 9, which spells out the damages for infringement (my emphasis added):

1. In determining the amount of damages for infringement of intellectual property rights, a Party's judicial authorities shall have the authority to consider, inter alia, any legitimate measure of value the right holder submits, which may include lost profits, the value of the infringed goods or services measured by the market price, or the suggested retail price.

2. At least in cases of copyright or related rights infringement and trademark counterfeiting, each Party shall provide that, in civil judicial proceedings, its judicial authorities have the authority to order the infringer to pay the right holder the infringer's profits that are attributable to the infringement. A Party may presume those profits to be the amount of damages referred to in paragraph 1.

3. *At least with respect to infringement of copyright or related rights protecting works, phonograms, and performances, and in cases of trademark counterfeiting, each Party shall also establish or maintain a system that provides for one or more of the following:*

(a) pre-established damages

(b) presumptions for determining the amount of damages sufficient to compensate the right holder for the harm caused by the infringement; or

(c) at least for copyright, additional damages.

Consider, now, how this might apply to sharing a few mp3s online. According to ACTA, the copyright holders can demand damages equal to the “lost profits” from those mp3s. And if you want to know how the recording industry calculates those, ask Jammie Thomas-Rasset, who was fined \$1,920,000 for sharing 24 songs in the US. When that was later reduced to \$54,000, the recording industries demanded a retrial because they felt it was far too low.

ACTA essentially validates this kind of deranged calculus, and permits copyright companies to claim for completely imaginary losses “to compensate the right holder for the harm caused by the infringement”, even though it is impossible to quantify that “harm” in any sensible way when you’re dealing with digital file sharing. Indeed, arguably there is no harm, since file sharing can actually *boost* sales – just ask Paul Coelho; but ACTA’s tunnel vision naturally cannot contemplate such a possibility.

Given these utterly disproportionate figures, it is extraordinary how the members of the European Commission can claim with any seriousness that ACTA does not “favour” rights-holders. Perhaps they imagine everyone earns the same as they do – 240,000 Euros a year – and can easily find a few million Euros down the back of the sofa if they need to. . .

8. *ACTA leads to “harmonisation through the backdoor”. A study ordered by the European Parliament’s committee for International Trade (INTA) to academics says that ACTA will require changes to EU enforcement legislation and/or to national laws.*

ACTA provisions are compatible with existing EU law. ACTA will not require any revision or adaptation of EU law and will not require any Member States to review the measures or instruments by which they implement relevant EU law. ACTA is also in line with international law, in particular with the WTO’s Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The INTA study does not show evidence of any concrete situation where ACTA would contradict, repeal or require the modification of a single provision existing in EU legislation. This has been confirmed in very clear terms by the two above mentioned Opinions of the Legal Service of the European Parliament.

If ACTA is compatible with existing EU law – and that remains unclear, despite the Commission’s assertions to the contrary – that’s only so because the whole treaty is so vaguely worded. It is full of options – clauses that signatories “may” implement in certain ways.

But this is the central trick of ACTA: it is not that the treaty itself imposes new laws on participants now – the studied vagueness makes that unnecessary. What ACTA does is to create a framework whose assumptions are that laws will be passed in the future to comply with the optional, more stringent parts. In other words, ACTA is not so much about today’s legal landscape, but about tomorrow’s. It will allow politicians to say: “well, we really have to implement these harsher enforcement laws because it’s in ACTA, and all of our partners have done so, and it would look bad if we didn’t follow suit.”

In fact, European commissioners aren't even waiting for ACTA to be ratified before moving down this path: with the "Proposal for a Revision of the Directive of Intellectual Property Rights" they are already planning to bring in harsher copyright enforcement of precisely the kind that ACTA tries to establish as a benchmark.

http://ec.europa.eu/governance/impact/planned/ia/docs/2011_markt.006_review_enforcement_directive_ipr_en.pdf

<http://falkvinge.net/2012/02/08/planned-post-acta-repression-in-european-union-the-documents/>

In other words, it's the usual copyright ratchet, whereby a country's copyright maximalism in one area is used as an excuse to "harmonise" everyone else's. That's precisely what has happened with copyright term, for example, where the varying terms for different kinds of creation – text, music, sound recordings – have gradually been extended around the world in order to bring about "harmonisation" (isn't it strange that there's never harmonisation *downwards*, and that it's always in favour of the copyright industries and to the detriment of the public?) ACTA seeks to use the same trick to export the worst excesses of copyright enforcement first to all signatories, and later around the world through further treaties, like the Trans-Pacific Partnership.

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<http://blogs.computerworlduk.com/open-enterprise/2012/02/acta-update-iii/index.htm>

<http://blogs.computerworlduk.com/open-enterprise/2012/02/acta-update-iv/index.htm>

Time to act on ACTA

Martin Houston

Anyone who uses the Internet will doubtless be aware that the big media corporations have been making a number of attempts to get legislation passed to make copyright infringement a serious criminal offence with the sort of disproportionate "make an example of 'em" penalties that a middle aged baron would be proud of. The mentality behind this is truly medieval in that if it is hard to catch who you consider to be a criminal then you have to make the penalty for those you do catch so terrible that it will act as a deterrent. We would not consider fines of thousands of pounds or chopping off of a hand for stealing a loaf of bread in the 21st century but the media corporations want the gargantuan fines and an electronic equivalent of the limb lopping being banning people from connecting from the Internet, sometimes for life.

The other side of what the corporations are after is forcing ISPs to spy on their customers, thus robbing all Internet users of any vestiges of privacy they have left. Something as simple as preferring to use encrypted communication on the net would make you 'suspect' and open to further investigation.

The third dangerous aspect of this media corporation power grab would be the right to have ANY site taken off the Internet just on the accusation that it contained or even linked to their copyrighted content. All this without any burden of proof, due process, right of appeal and consequential damages for such action being made in error. The DMCA is already being abused as a means for businesses to damage their competitors with spurious take-down notices. If this power was widened further it would have a huge chilling effect on free speech all across the Internet.

The way in which they have attempted to get these laws through is also breathtaking in its arrogance.

From our own Digital Economy Act, steamrolled through in the dying days of the last Labour government, as it was the most vital thing in the WORLD to get on the statute books, through the US SOPA and PIPA acts that it has been said involved the spending of 100 million dollars by the content providers in 'sweeteners' to senators to get it through at a rapid pace too, and lastly ACTA.

The Anti Counterfeiting Trade Agreement has been in simmering away in the background, being negotiated in secret for a number of years now. Organisations such as the Open Rights Group and EFF have been tracking it but until a few weeks ago it was little known outside the circle of people with a particular interest in the detailed business of protecting our rights.

However when the American people, and much of the rest of the world, protested so strongly against SOPA including such high profile sites as Google and Wikipedia 'going black' for the day the US political class lost its nerve. Support for such grossly unpopular laws was rightly seen as electoral suicide, so SOPA and PIPA are on the 'back burner' for now.

The defeat of SOPA meant that the 'Content Mafia' corporations needed to push for a rapid ratification and introduction of ACTA. Some of the officials who were badgered into signing ACTA have since recused themselves, Helena Drnovsek Zorko, Slovenia's ambassador to Japan, said:

I signed ACTA out of civic carelessness, because I did not pay enough attention. Quite simply, I did not clearly connect the agreement I had been instructed to sign with the agreement that, according to my own civic conviction, limits and withholds the freedom of engagement on the largest and most significant network in human history, and thus limits particularly the future of our children. . . And then you overlook the significance of what you are signing. And you wake up the following morning with the weight of the unbearable lightness of some signature.

First I apologised to my children. Then I tried to reply to those acquaintances and strangers who expressed their surprise and horror. Because there are more and more of them, I am responding to them publicly. I want to apologise because I carried out my official duty, but not my civic duty. I don't know how many options I had with regard to not signing, but I could have tried. I did not. I missed an opportunity to fight for the right of conscientious objection on the part of us bureaucrats.

ACTA is worse than SOPA because it not only affects the Internet. The same IP grabbing mentality also has the power to kill people by not allowing poorer countries to manufacture generic drugs or even use seed that has come from genetically modified crops without payment of arbitrary and crippling royalties. ACTA forgets that the world is for the benefit of the human race. Corporations do not even count as being alive!

Protests against ACTA have been spreading across Europe. The Poles were first to march in protest - 30,000 people out on the streets at the end of January. Then on 11th Feb the rest of Europe and citizens as far away as Canada and Australia joined them. In over 200 cities including a march of some 800 people here in London. This was tiny by comparison with some. 16,000 people in Munich and a stunning 50,000 people marching in Sofia, Bulgaria. Eastern Europe seems to have taken the anger with ACTA to heart far more than the UK. Is it that they can remember not being free and do not want to return to that for the sake of a fat American corporation?

If you want to see the demos just search Youtube for ACTA – there are thousands. Our own London march was organised over a period of 2 weeks just as a Facebook event with plenty of publicity help from Anonymous UK. Many people said that this was the first time they have ever taken to the streets to protest.

It was a full day, with a few people starting the day at the Occupy LSX camp at St Pauls then marching to join the Amnesty Rally in Trafalgar Square. Then on to our own gathering outside British Music House where we had some speeches and were given leaflets and T Shirts provided by the Open Rights Group. Then we marched, megaphones in hand. Giving out leaflets as we went. Oxford Street → The US Embassy → Buckingham Palace → Parliament and then all the way back to St Pauls – at least 8 miles of walking in all! We made a lot of noise and gave away a lot of leaflets.

It shows how in control of the media that these corporations are in that there was no mention of any of the ACTA protests that day on the TV news, not a word. Make of that what you will.

The peoples of Europe are united in their insistence that when it comes for the European Parliament to ratify ACTA in June they are to throw it out.

Please find who your Euro MP is and tell them that just like for the US politicians any support for ACTA or similar freedom grabbing measures will mean being out of a job come election time!

IT Law: An ISEB Foundation

Jon Fell et al

British Computer Society

ISBN: 978-1-902505-80-0

288pp.

£ 26.99

Published: November 2007

reviewed by Paul Waring

This book aims to cover that topic which many of us would like to avoid thinking too much about if we could – IT law – based on the ISEB IT Law Essentials course. As this is a book covering a particular qualification, it is structured to follow the syllabus rather than one long flow of connected chapters. This is useful in that you can read one chapter in isolation, or dip in at certain points, and the syllabus structure makes it much easier to find specific information.

The first chapter covers contracts which, whilst not unique to IT, do throw up some specific issues such as when a contract is deemed to have been accepted if an order is placed online. This is followed by a chapter entitled Privacy, but which actually covers a wide range of issues beyond simple data protection. Freedom of Information and its sister regulations for the environment are included, and will be of interest to anyone who works in or with the public sector.

Chapter three covers the developing topic of electronic evidence and its use in court proceedings. Hopefully of little interest to the majority of readers but essential reading for those unfortunate enough to find themselves preparing for a case. Following this is a longer chapter covering the topic of intellectual property – a subject which could easily be a book in itself, and as a result the authors have skimmed over some of the topics.

Chapter five covers employment issues, although most of these are not specific to IT and would be relevant to a wide audience. However, the sections on contracting and liability are probably of greater interest, given how much reliance is put on IT systems. Finally, there is a chapter on accessibility and information security, which is rather woolly and doesn't go into enough detail to be of much use.

Overall, this book is comprehensive and covers most of what someone working in the IT sector ought to know, especially if you have any form of managerial responsibility. The topics are covered with a minimal amount of legal jargon, and should therefore be open to a wide readership. There are a few minor niggles, and some of the content is now out of date, but this is still a good general guide to the legal issues surrounding IT.

Design and Prototyping for Drupal

Dani Nordin

O'Reilly Media

ISBN: 978-1-4493-0550-5

168pp.

£ 11.50

Published: December 2011

reviewed by Gavin Inglis

O'Reilly have thankfully avoided the “huge font, thick book” model. *Design and Prototyping for Drupal* is one of their thinner volumes, at 149 pages of content, and many of those pages are heavy on the illustrations and even whitespace. This is reflected in the relatively inexpensive cover price.

Although “Drupal” is the largest word on the cover, half of this volume is really a general discussion of designing and prototyping web sites. Two case studies are included: a redesign of the author's own portfolio site and a networking site for urban grow-your-own enthusiasts (food, not drugs).

“Part I: Getting Started” lays out the terrain and is over almost immediately. It mentions general aspects of the web design process, including options for mockups: Balsamic, Adobe Fireworks, Coda and LessCSS.

“Part II: Design and Layout” gets down to the nitty-gritty. The chapters here consider various stages in design iteration, exploring the value of sketches, style tiles and greyboxing. Communicating with the client is placed squarely at the centre of the this process, with thoughts about engaging them and focusing your conversations. This is a good thing and key to the value in this book.

Later in this part we settle into a discussion about grids. Chapter 6 considers the 960 system, 24-column versus 12-column layouts, CSS implications and the new CSS Grid Layout module in development at W3C. Chapter 7 diverts to the specifics of setting up templates in Adobe Fireworks.

Finally, “Part III: Prototyping, Theming and Managing Your Markup” represents the bulk of the book at about 80 pages. It begins with the joy of paper prototyping, for fast discovery of problems and real-time tweaks during client meetings, and then Drupal code begins to appear. We hear about Nodes, Blocks and Views; base themes versus child themes; and how to ignore previous suggestions and prototype directly in the browser.

The two large practical examples centre around Views, taking us through the actual process of implementation, from an initial non-Drupal design to a usable prototype. These are well illustrated and show many interface screenshots.

Design and Prototyping for Drupal is a thin book. There's no getting away from it. Blink and you'll miss chapters 9 and 14. There's no index. It is aimed at designers, not technical people. It will get you started on this particular design path, and outline the terrain you can expect to face. While there is certainly specific Drupal advice, most of the value of this book is in considering various approaches to design and client communication. Given that, some of the most valuable material is in the interviews “from the trenches” with working designers.

It's broad rather than deep; a light introduction from a knowledgeable friend. My favourite quote comes from chapter 12:

If you don't want to deal with code, and you aren't willing to pay a developer, you shouldn't be doing things in Drupal.

Arduino Cookbook

Michael Margolis

O'Reilly Media

ISBN: 978-1-4493-1387-6

724pp.

£ 34.50

Published: December 2011 (2nd edition)

reviewed by Kimball Johnson

At 636 pages plus appendices, this is an impressive tome. However, as the title 'cookbook' suggests it is not one for reading cover to cover. It is structured into chapters each covering a different aspect of the Arduino, starting with some basics in the first three chapters, and then moving on to a chapter for each of a selection of hardware components.

Whilst reading through the first few chapters I was struck particularly at how clear and structured it seemed for beginners, so I asked my not especially technical fiancée to give it a read. She felt that it made assumptions about electronics knowledge, but the approach to the programming side was very clear and easy to understand, particularly the combination of line by line comments on the code examples, followed by the in depth analysis. Her opinion backed up mine that if you have electronics but not programming knowledge, and a project you feel will benefit from an Arduino then this book is ideal. In the author's defence, he does state in the introduction that he cannot cover everything, and recommends a selection of both electronics and C programming books.

That said, I also feel that a programmer, with a small level of basic electronics will also benefit from the book, as if you know what you are wanting to do, you look up the relevant chapter for the type of control you require, which starts with an overview of the electronics involved. For example Chapter 9, "Physical Output" has an introduction explaining how servos and different types of motor work, and why you would use each type. This is followed by a selection of recipes that show how to use them in various different ways.

Finally it is worth mentioning the final few chapters, 16, 17 and 18. These, whilst retaining the same recipe format, break away from the rest of the book in that they get into some more low level details about the ATMEGA microprocessor. These allow you to write your own libraries, and understand details such as memory management; not for the beginner developer, but certainly useful.

In summary, this is a fantastic book. It gives a great overview of Arduino and what you can do with it, and if you have a project in mind, it will save you hours of web searching to get ideas on how to interface with a lot of common electronics, and which Arduino libraries to use.

Hadoop: The Definitive Guide

Tom White

Yahoo! Press

ISBN: 978-1-4493-8973-4

626pp.

£ 38.50

Published: October 2010

reviewed by Kimball Johnson

"Discover how Apache Hadoop can unleash the power of your data". This is how "Hadoop: The Definitive Guide" is described, and that it achieves. In a well structured manner it takes you through the components of the Hadoop framework, from both a developer and sysadmin's point of view.

The first chapter briefly describes the problem Hadoop is trying to solve and comparisons to similar systems, and for me this 15 page chapter is one of the most useful, as it puts into perspective the

shear volume of data that can be worked with using such systems. The second chapter then gives a brief example of using MapReduce, the processing element of Hadoop, using a variety of different programming languages. By this point the reader is given an overview of the power of the seemingly simple key-value processing.

From this point the book proceeds to go into depth about the key parts of Hadoop, starting with HDFS, the distributed file system, and how MapReduce interacts with it through the Hadoop IO layer, followed by four chapters of greater depth into MapReduce, not only details of the framework and API, but also best practices of development such as unit tests and the tools the framework provides to assist. This attention to detail really adds the the value of the book beyond a series of reference articles.

The Linux Command Line

William E Schotts

No Starch Press

ISBN: 978-1-59327-389-7

504pp.

£ 31.49

Published: January 2012

reviewed by Roger Whittaker

William Schotts runs a site called <http://linuxcommand.org> and an associated blog, and has over a period of years developed this book as a tutorial on his site. He was approached by No Starch with a view to publication in printed form, and came to an agreement with them under which the publishers hold the rights relating to printed copies while the a version of the book remains available in PDF format under a Creative Commons Licence at

<http://ignum.dl.sourceforge.net/project/linuxcommand/TLCL/>

The book is billed as an introductory one, but it takes the reader a long way, and would be useful to most Linux users. I like the book's approach very much. Too often books of this general kind end up being largely composed of tables of reference material reformatted from man pages and the like, with insufficient explanation in between.

Schotts' approach is to help the reader to experiment with the commands that he introduces, to build up more complex examples progressively, and to explain everything he does in straightforward (and entertaining, but neither slangy nor patronising) language. The book can therefore be used both as a good "interactive" tutorial and as a very accessible reference guide.

This is a book about using the bash shell interactively to get things done. On his site under the heading "Learning the shell: why bother?" the author tells the following story:

Why do you need to learn the command line anyway? Well, let me tell you a story. Not long ago we had a problem where I used to work. There was a shared drive on one of our file servers that kept getting full. I won't mention that this legacy operating system did not support user quotas; that's another story. But the server kept getting full and stopping people from working. One of the software engineers in our company spent the better part of a day writing a C++ program that would look through the directories of all the users and add up the space they were using and make a listing of the results. Since I was forced to use the legacy OS while I was on the job, I installed a version of the bash shell that works on it [cygwin]. When I heard about the problem, I realized I could do all the work this engineer had done with this single line:

```
du -s * | sort -nr > $HOME/space_report.txt
```

This typifies the author's approach and the examples that he uses throughout the book fulfil real needs and are not contrived or artificial. The book is a book about using Linux from the command line: it is not mainly about shell scripting, but the last quarter of the book constitutes a set of tutorials on writing bash scripts. But throughout the book he provides many good examples of useful elements that you would want to put into scripts.

The only section where the book becomes slightly distribution specific is in the (rather brief) discussion of package management where only the Debian style and Red Hat style commands are referred to. Naturally I personally was sorry not to see a reference to `zypper` among the `apt-get`s and `yums`.

The look and feel of the book is very good: the fonts are very readable and the command and code examples are typeset in a sensible way. The cover art is of a very odd Popeye-like robot eating slips of paper with commands written on them: strange, but who cares? My only other quibble, which I have mentioned before, is No Starch's decision to set the first paragraph of each chapter in a much larger font. I've no idea why anyone thinks this looks good, but again, these are details.

I recommend this book, and not only to Linux beginners.

From Gutenberg to Zuckerberg: What You Really Need to Know About the Internet

John Naughton

Quercus

ISBN: 978-0-85738-425-6

352pp.

£ 10.99

Published: January 2012

reviewed by Roger Whittaker

By reading this book, readers of this Newsletter will not learn any facts about the Internet that they do not already know. Nor are they likely to differ hugely from the author's views about the social and cultural impact of the Internet or issues of so-called "intellectual property". John Naughton's background, interests and attitudes make it reasonable to characterise him, roughly speaking, as "*one of us*". None of this means, however, that you need not read this book. On the contrary, I strongly recommend that you should.

Naughton's weekly column in the *Observer* (written in his spare time between his academic jobs at the Open University and at Cambridge) is one of few places in the British non-specialist press where you can find informed and intelligent discussion of technology and its effects: a sane haven from the usual journalism which alternates between company PR-driven hype and absurd fear-mongering and "moral panic" stories from writers whose technical ignorance is often obvious.

Naughton's earlier book *A Brief History of the Future: Origins of the Internet* was published in 2000 and is both an excellent description of the history of the Net in the twentieth century and his fears and hopes for the future.

The present book is not a rewrite or updating of the first: whereas "A Brief History" spent a lot of time on where the Internet came from, "From Gutenberg to Zuckerberg" is much more focussed on the long term effects of the Internet on our culture. The first chapter's title is "Take the Long View", and makes comparisons (as one would expect from the book's title) between the effects of the printing press and the effects of the Internet. Here's a quote from page 11:

Now imagine that the year is 1473 – that’s eighteen years after 1455. Imagine further that you’re the medieval equivalent of a MORI pollster, standing on the bridge in Mainz with a clipboard (clipslate?) in your hand, stopping pedestrians and requesting permission to ask them a few questions. Here’s question 4:

On a scale of 1 to 5, where 1 indicates ‘Not at all likely’ and 5 indicates ‘very likely’, how likely do you think it is that Herr Gutenberg’s invention will:

a) Undermine the authority of the Catholic Church? b) Trigger a Protestant Reformation? c) Enable the rise of modern science? d) Create entirely new social classes and professions? e) Change our conceptions of ‘childhood’ as a protected early period in a person’s life?

On a scale of 1 to 5! You only have to ask the question realise the fatuity of the idea. Printing did indeed have all of these effects, but there was no way that in 1473 anyone in Mainz – or anywhere else for that matter – could have known how profound its impact would be.

Naughton maintains throughout the book the humility which that comparison implies, but sees farther and deeper than most in his analysis, which is by no means always optimistic. The penultimate chapter is entitled “Orwell vs Huxley” and sees both *1984* and *Brave New World* as dangers in the current state of the Internet. He quotes from Tim Wu’s work in *The Master Switch* on the way new communications technologies tend to be locked down over time and sees disturbing dangers both in government control and censorship and in the rise of commercial panoptical walled gardens, particularly since the rise of mobile internet devices.

Back in the mid-1990s it was common to hear people ask questions along the lines of “what is the Internet, really?”. No-one asks that kind of question now. But the fact is that many of the people who use the Internet every day could not formulate a clear answer. Which means that they are not qualified to form opinions on the huge questions of public policy that surround how the Internet is to be governed and regulated.

Such people should read this book. But so should you: the clarity of the description and the depth of thought that has gone into it make it thought-provoking and a pleasure to read.

To sum up, I can’t do better than the blurb quote from Cory Doctorow that appears on the cover:

A fantastic read and a marvel of economy... This is the kind of primer you want to slide under your boss’s door.

Inside Cyber Warfare

Jeffrey Carr

O’Reilly Media

ISBN: 978-1-4493-1004-2

316pp.

£ 30.99

Published: December 2011 (2nd edition)

reviewed by Roger Whittaker

This is an alarmist book by an author who has a vested interest in alarm.

I felt my first misgivings early on: when reading the Foreword, which seemed to exude a somewhat authoritarian tone. I looked at the foot of the page to see that the Foreword was signed by “The

Honorable Michael Chertoff, former Homeland Security Secretary and co-founder of the Chertoff Group". In other words, the co-author of the PATRIOT Act, and a person who sought to use the so-called War on Terror as a reason drastically to curtail US citizens' rights both on and off the Internet, and who has since gone on personally to profit enormously from that association.

Most of the security efforts arising out of those GW Bush-era efforts have been "security theatre" but the effects on peoples' rights, both on- and off-line have been real.

The book itself is mostly a historical account (from an extremely US-centric point of view) of various incidents over the last few years, with a particular emphasis on DDOS and other attacks emanating from Russia (including amongst others the attacks on Estonia in 2007 and Georgia in 2008).

While the modus operandi of such attacks are mentioned vaguely, there is little technical detail in this book. The reader will not come away with a clear appreciation of what kinds of defects in *which* operating system make feasible the running of botnets to achieve DDOS attacks, or what measures might be taken to prevent your web site from being defaced by your political opponents.

The tone throughout is one of "more must be done" and the "more" includes such measures as preventing anonymous domain registrations, and restricting other individual rights online, preparing for preemptive cyber-attack against potential aggressors, treating "cyber-warfare" incidents as Acts of War, setting up a Cyber Warfare Early Warning system and more.

In an early chapter, Israel is presented as the victim of events in 2008 when during the "Cast Lead" attacks on Gaza (in which many innocent people died) pro-Palestinian groups managed to bring down and deface a few Israeli news and political web sites.

Although Stuxnet gets a mention (in a guest chapter by Catherine Lotrionte) it is in the context of a discussion about when preemptive attacks might be justifiable, with the benefit of the doubt going to the perpetrators.

My understanding is that in fact Carr himself believes that Stuxnet came out of China rather than Israel or the US. I have not the slightest idea nor the technical understanding to come to a conclusion about the evidence in this case. But I do recognise the political slant of a world-view when I see it.

Certainly the potential for "the bad guys" to do harm, whether or not they are in the pay of governments, terrorists, or organised crime is a serious concern. But the attitudes that this book displays regarding the way to handle the problem are themselves destructive and benefit only powerful elites who to say the least do not have your best interests and mine at heart, and have much to gain by making us frightened.

I prefer Bruce Schneier. Look out for my review of his "Liars and Outliers" next time.

Contributors

Martin Houston has been using Unix since 1980 starting with a PDP11/70 and Linux since 1994. He was the founder of the original UKUUG Linux SIG and is currently a freelance Linux consultant. He lives in Essex with wife Teresa and 2 cats, 2 dogs and too many computers.

Gavin Inglis works in Technical Infrastructure at the EDINA National Data Centre in Edinburgh. He is a teacher, photographer and musician who has recently discovered the joys of spreadsheets as a recreational tool.

Kimball Johnson is a Systems Developer for Lancashire County Council. He has been programming since a very early age, starting with BBC Micros, then MS DOS and Windows Systems: however was enlightened with a copy of Debian GNU/Linux Woody at university. He is always wanting to learn and has recently started to take on embedded programming on a variety of devices, on everything from a Arduino to a Nintendo DS.

Glyn Moody has been a technology journalist and speaker for a quarter of a century, covering the Internet since March 1994, and the free software world since 1995. One early feature he wrote was for Wired in 1997: *The Greatest OS that (N)ever Was*. His main blog is *opendotdotdot*. His most recent books are *Rebel Code: Linux and the Open Source Revolution*, and *Digital Code of Life: How Bioinformatics is Revolutionizing Science, Medicine and Business*.

Jane Morrison is Company Secretary and Administrator for UKUUG, and manages the UKUUG office at the Manor House in Buntingford. She has been involved with UKUUG administration since 1987. In addition to UKUUG, Jane is Company Secretary for a trade association (Fibreoptic Industry Association) that she also runs from the Manor House office.

Paul Waring is chairman of UKUUG and a director of a wholesale insurance broker. Outside of work he can usually be found filing documentation bugs against various open source and free software projects.

Roger Whittaker works for SUSE supporting SUSE Linux Enterprise Server for major customers in the UK. He is also the UKUUG Newsletter Editor, and co-author of three successive versions of a SUSE book published by Wiley.

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