

# Tubes: A journey to the center of the internet

Ben Everard is now wondering if he can spend his next holiday on a guided tour.

**W**hat is the internet? Think about that question for a moment. Is it an abstract concept that doesn't exist in physical space? Or is it a tangible, finite thing that you could reach out and touch if only you knew where to find it?

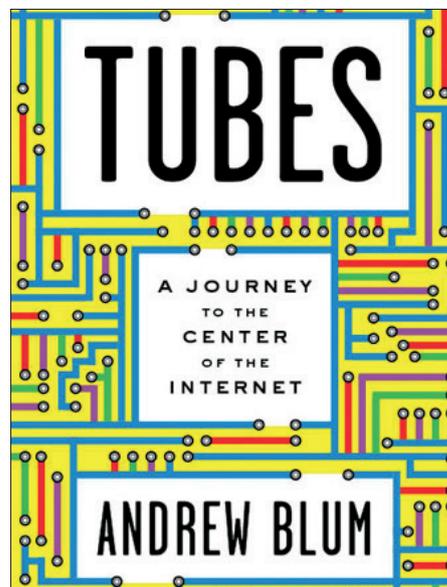
In *Tubes*, Andrew Blum takes the view that it's a set of computers and routers, and the high-bandwidth cables that connect them. In this case, then, the internet must exist, and since it exists, it must be possible to see it. *Tubes* is a book documenting his quest to find the internet, or at least the physical things that comprise it.

### Where is your mind?

Blum manages to get access to a surprising amount of infrastructure, and he takes the reader along with him as he tours internet exchanges and cable landing points, and meets the people who keep them running.

This isn't a detailed book about the structure of the internet, though it does leave the reader with a basic overview of this. Instead, this is a book that adds colour to the bland network topographies that comprise most descriptions of the internet.

The reader is left with gives a splendid overview of what goes on behind the scenes of the defining engineering accomplishment of our age and one we often don't give ourselves the space to think about.



The looks like some form of abstract PCB routing that has nothing to do with the internet.

### LINUX VOICE VERDICT

Author Andrew Blum  
 Publisher Ecco Press/Penguin  
 ISBN 978-0-061-99493-7/978-0-141-04909-0  
 Price £9.99

Discover the wondrous locations your data visits after you send it down the intertubes.



# Great North Road

SCI-FI

It took a year, but Graham Morrison finishes a book about Newcastle upon Tyne.

**T**here have been times when we've really enjoyed Peter F Hamilton, most recently with the completion of the *Void* trilogy in 2010. This was a fantastic series of multithreaded yarns that weaved medieval adventure into a possible future where fictionalised versions of Larry Page and Sergey Brin ruled the ultimate philanthropic corporate universe. It had moments of brilliance, even if its length meant the thrill of those original themes became a little jaded. But it was another reason why Hamilton is still one of the best current proponents of 'the space opera' – the literary equivalent to listening to Bohemian Rhapsody by yourself in the car.

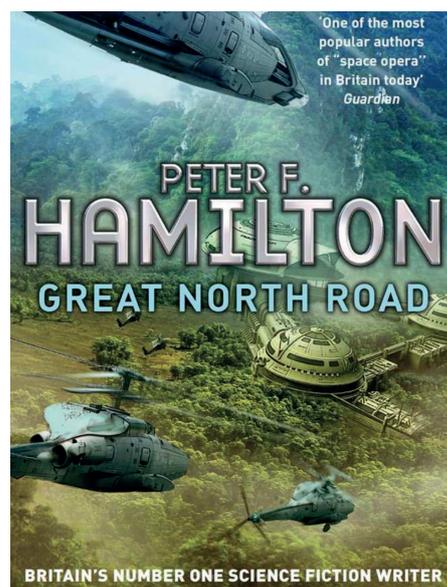
The same could be said of *Great North Road*, currently a rare one-off title from the same author. It features many characters in different environments that may or may not come together at some pivotal point in the story. The setting for most of these

characters is rain-sodden Newcastle upon Tyne circa 2142. There are wormholes, invisible alien threats and lots of Geordie accents, but this is essentially a crime drama. Hamilton is also trying to highlight carbon emissions, sustainability and the unforeseen consequences of taking from the environment. These elements do feel awkward, and the book never quite feels as harmonious as his other work, which is perhaps why we finished many other books before finally completing this one.

### LINUX VOICE VERDICT

Author Peter F Hamilton  
 Publisher Macmillan  
 ISBN 978-0-230-75005-0  
 Price £6.99

Hamilton's usual mix of grandiose themes with many characters, but lacking his usual impact.



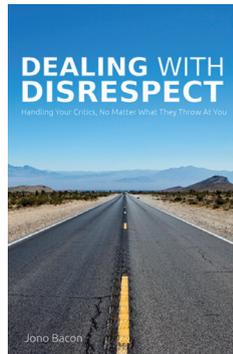
Even with wormholes and awesome computing power, those silly humans are still wreaking havoc on unsuspecting environments.

## Dealing With Disrespect

Graham Morrison learnt long ago to never read the comments.

Jono Bacon has fought more than his fair share of flamewars online, and he's not the only one who has noticed the vehemence of commentators increasing. And we completely agree. Disagreements can reach disproportionate levels of hate, and this can be a real problem to the average sensitive and introverted geek. Not only can it lead to depression and diminished self-worth, but it's also pushing valuable contributors out of the community. We've seen more than one insightful mind turn their back on a project simply because of too much bile.

The message behind Jono's short book is simple; you're not alone. Using anecdotes and a personal style, the book walks the reader through the mental journey we're assuming Jono went through in learning to come to terms with disrespect, and how to turn any knock in confidence and uncertainty into a positive force. That the book is also available for free is also rather noble, and while it won't



We're on a road to nowhere.

be for everybody, we suspect there's a considerable number who will take quiet solace from its publication.

### LINUX VOICE VERDICT

**Author** Jono Bacon  
**Publisher** self-published  
**Price** CC BY-NC or \$2.99 on Kindle  
 There's too little written about this subject, and it's great to see Jono highlighting the seriousness of a growing problem.



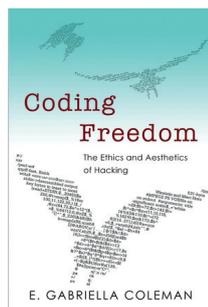
## Coding Freedom: The Ethics and Aesthetics of Hacking

We've been studied, and Ben Everard has the results.

Have you ever watched National Geographic as an anthropologist describes the customs of a tribe and wondered what the tribe thought about the film? If you have, and you're a free software coder, this might be your chance to find out.

Gabriella Coleman is an anthropologist who studies us. By us, I mean the elusive tribe of people that work on open source software. In *Coding Freedom* she takes a scholarly approach to analysing what it means to be someone who develops free software, and she's taken the time to understand this properly. In doing so, the book also covers the concept of free software, what it means to the community, and why people within the community are so attracted to it.

*Coding Freedom* is heavy going, especially to someone not familiar with the languages of the social sciences. If you make the effort to read it, it's quite



The birds on the front cover are made up of the text of a Perl script to remove encryption from DVDs.

interesting, but in its current format, it's more suited to reading by social scientists than computer scientists.

### LINUX VOICE VERDICT

**Author** E Gabriella Coleman  
**Publisher** Princeton University Press  
**ISBN** 178-0-691-14461-0  
**Price** £16.95

A detailed, informative, but hard-to-read guide to the people behind free software.



## ALSO RELEASED...



One day soon, we'll all need big data tools to search our photos.

### Data Algorithms

After reading Ben's excellent data analysis tutorial in this very issue (p82), we've got a genuine taste for big data, which is why this book looks rather excellent. It promises to give you the super-powers to crunch through petabytes of data. Excellent!



Create the next *Inception* from the comfort of your Linux box.

### Mastering Autodesk Maya 2015

*Blender* is incredible, but we often forget that there's a tier 1 3D application available for Linux that many studios already use, and that's *Maya*. It may be expensive, but it's a native application capable of Hollywood-quality rendering. This book takes it up a level.



Think of the children.

### Design for Kids

It's lovely that there's a renaissance in teaching technology to kids, but developing interfaces for children is a completely different challenge to the ones we're used to. This is why this ebook looks useful. It helps designers deal with the emotion, ego and impatience of the average child, while helping them learn.