CASTx17

B Break K Keynote L Lightning Talks N Lunch S SpeakEasy T TestLab R Track Session

U Tutorial W Welcome

FEBRUARY 20 • MONDAY

9:00am – 5:00pm U **Dissecting Your Testing** Pinaroo 4 (77 York Street, Sydney NSW 2000)

Speakers: Michael Bolton

Have you ever studied testing? Too few testers, so it seems, have read a book on testing or its underlying principles. Even fewer have studied testing by deliberately observing evaluating it directly and systematically.According to the Oxford English Dictionary, an autopsy is an “examination to discover the cause of death or the extent of disease”, ultimately derived from the Greek work “autoptes”, meaning “eyewitness”. Doctors perform autopsies to learn about the human body and to discover how things might have gone wrong. A testopsy—to use a word coined by James Bach—is an examination of testing work, performed by watching a testing session in action and evaluating it with the goal of sharpening observation and analysis of testing work. Testopsies can help in training, assessment, and developing testing skill for novices and experienced testers alike.In this one-day workshop, led by Michael Bolton, participants will learn from each other by preparing and performing a series of testopsies. The process begins with creating a coding system, mapping out the activities that testers perform and the skills and tactics they apply. Using the coding system to guide observation, participants will watch each other as they test software, record what happens, and then discuss the activity and refine the coding system. Join us as we dissect our testing!

9:00am – 5:00pm U **Introduction to Capacity Engineering** King (77 York Street, Sydney NSW 2000)

Speakers: Goranka Bjedov

I am planning for four different blocks that cover, in my opinion, the most important aspects of capacity engineering:

1. Capacity 101: (50 minutes, 10 min break)
– goals of capacity engineering
– different methods of managing capacity in use today
– advantages and disadvantages of different approaches

2. Monitoring 101: (2 50 minute sessions, 10 min break with each)
– introduction to why monitoring matters
– war stories where monitoring either saved the day or lack of it cause disasters
– what should be the goals of good monitoring
– discussion of how we could go about accomplishing those goals

– discussion of what we did at FB
– describing three daemons running on all servers
– showing what can be built on top of these
– demonstration of diagnosing problems using these demons

3. Performance 101: (2 50 minute sessions, 10 min break with each)
– description of the performance space: terminology and usage
– what types of problems can be found
– what types of problems are most common/prevalent in code today

– performance testing (why it matters)
– discussion of tools for performance testing
– benchmarking done right

4. Putting it all together (2 50 minute sessions, second one completely interactive)
– you just got the first performance job, where do you start?
– how do you develop reasonable approaches for a place that never had capacity work done?
– learning from past approaches (history will teach you a lot!)
– understanding risks and safety buffers
– alternative approaches to handling “unused” capacity
– Q and A

9:00am – 5:00pm	U	**Testing APIs from imagination to implementation** *Speakers: Abby Bangser, Mark Winteringham* You have heard of Web services and APIs. You know how to use Postman. You have even created a few API tests. But throughout your testing do you consider how API design affects the usability, extensibility, performance, and many other risks to your application? Or do you and the business leave it to those more technical to decide? In this tutorial, we will discuss how to analyse and define APIs with both technical and business facing team members. You will also be introduced to, and trial, a set of tools and skills to help test APIs from the requirements phase through to implementation. As a group, we will explore: - Why business expectations matter in how you develop your API and how to explore and question architectural decisions - How to expand your test design to deeply explore an API - How to model an already existing API platform which can drive the design and automation of a suite of checks Many argue that the future of software is not new creations, but instead creating new value by building connections between existing solutions both internally and across organisations. To take advantage of these opportunities we will need to value APIs in a whole new light. Come join us in building that broader understanding of APIs and how they relate to your business and end user goals.	Pinaroo 5 (77 York Street, Sydney NSW 2000)
10:15am – 10:30am	B	**Morning Break**	Pre-Conference Area (77 York Street, Sydney NSW 2000)
12:00pm – 1:00pm	N	**Lunch**	Grace Brasserie (77 York Street, Sydney NSW 2000)
2:30pm – 2:45pm	B	**Afternoon Break**	Pre-Conference Area (77 York Street, Sydney NSW 2000)
2:45pm – 3:45pm		**Test Lab with Atlassian QA Cards** *Speakers: Danielle Moore* Atlassian QA Cards - A fun, practical way of growing the testing mindset for developers Atlassian does QA differently. We don't use the traditional develop/test/ship model of software development. Developers are accountable for the level of quality in their work. We talk a lot about the benefits of the "Quality Assistance" model over the traditional "Quality Assurance" model. QA Engineers are coaches to help developers do their best work. Often, people want to know some practical advice about how to go about implementing our model. I have created Atlassian QA Cards. These are one of many tools we use at Atlassian to help developers identify risks, edge cases, missed requirements, etc. The cards essentially contain questions that a QA would ask to help identify these missing pieces to the work. We use them at various times in our process: Before development of a big feature, before development of small pieces of a feature, during development, and during the developer's exploratory testing. This session will explain the problem the cards try to solve, introduce the cards and their content, and depending on size of the group, hands-on practice using them.	TBA

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FEBRUARY 21 • TUESDAY

8:30am – 8:45am W **CASTx17 Welcome** Balinga (77 York Street, Sydney NSW 2000)
Speakers: Ilari Henrik Aegerter, Anne-Marie Charrett, Eric Proegler

8:45am – 9:45am K **Managing Capacity and Performance in a Large Scale Production Environment**
Speakers: Goranka Bjedov Balinga (77 York Street, Sydney NSW 2000)
The advent of cloud computing has a side-effect of the growth – in size and in number – of large private clouds. These clouds tend to be distributed, contain large number of servers of different types and purposes, different architectures, different networks and different software/operating system combinations running on them. Facebook owns one of those clouds, and this presentation addresses challenges involved in managing this cloud and supporting billions of users around the world.
This presentation will discuss processes, techniques, and tools used at Facebook to manage more than a billion daily visits to the site. The approaches used when the site had millions of users evolved over the last decade, and are either based on open source technologies or have been developed at Facebook and open sourced later. Like many large companies, Facebook is focused on reducing its footprint while at the same time providing highly performance, accessible, reliable and available product all around the globe. The talk will cover some of the fundamental building blocks of Facebook's infrastructure (Opencompute.org) and explain how and why the company undertook those efforts.

9:45am – 10:00am B **Morning Break** Pre-Conference Area (77 York Street, Sydney NSW 2000)

10:00am – 11:00am T **Test Lab with Atlassian QA Cards** Pinaroo 5 (77 York Street, Sydney NSW 2000)
Speakers: Danielle Moore
Atlassian QA Cards - A fun, practical way of growing the testing mindset for developers

Atlassian does QA differently. We don't use the traditional develop/test/ship model of software development. Developers are accountable for the level of quality in their work. We talk a lot about the benefits of the "Quality Assistance" model over the traditional "Quality Assurance" model. QA Engineers are coaches to help developers do their best work. Often, people want to know some practical advice about how to go about implementing our model. I have created Atlassian QA Cards. These are one of many tools we use at Atlassian to help developers identify risks, edge cases, missed requirements, etc. The cards essentially contain questions that a QA would ask to help identify these missing pieces to the work. We use them at various times in our process: Before development of a big feature, before development of small pieces of a feature, during development, and during the developer's exploratory testing. This session will explain the problem the cards try to solve, introduce the cards and their content, and depending on size of the group, hands-on practice using them.

10:00am – 11:00am R **Little Shop of Tools** King (77 York Street, Sydney NSW 2000)
Speakers: Oliver Erlewein
When we talk about tools in testing we mean automation tools, bug trackers, test management tools and other behemoths but there is a plethora of tools available to testers to make their lives easier or to increase testing scope without much more effort. A lot of them might not be obvious testing tools either.

This is a very simple presentation with some demos on what tools there are and how I use them. It should get everyone thinking about building their own little shop of tools that they delve into when testing.

This talk is probably more suited for novice to intermediate testers. Doesn't mean though, that experienced testers cannot find some valuable takeaways.

10:00am – 11:00am R **Rise of the Machine (Learning)** Pinaroo 4 (77 York Street, Sydney NSW 2000)

Speakers: Stephanie Wilson

At Xero we're using Machine Learning and A.I to make accounting more accessible to small business owners by predicting account codes and providing an always accessible chatbot to answer those tricky questions.

What does this all mean for the human development teams behind the machines?

If the goal of Machine Learning is to make decisions without the need for human intervention, where does that leave us?

Fortunately, this doesn't mean that testing is no longer required but it does mean that testing is changing. It means that we need to understand the human interactions with our software more now than ever before. By looking at the output of results of an algorithm under test, we can help teach the software how to address unexpected inputs and also understand which algorithm is best suited to our goals.

Just like humans, while machine's are learning, mistakes are bound to be made. This is why human intervention is so important throughout the learning process. By explaining the different phases of learning concentrating on Supervised Learning leading to Unsupervised Learning, I will show how being a creatively unique human thinker can prevent unfavourable decisions being made by the algorithms.

To conclude, I will be drawing parallels with the Industrial Revolution and the introduction of manufacturing that made production quicker. I will also show how there will always be a need for those of us passionate about our craft.

The introduction of the printing press is estimated to have produced as many books in the following 50 years as were produced in the previous 1200. With the use of machine learning we're seeing more decisions being made faster than ever before. If decision making is the currency of the A.I, then understanding and being uniquely human is the currency of us.

11:00am – 11:30am B **Morning Break** Pre-Conference Area (77 York Street, Sydney NSW 2000)

11:30am – 12:30pm S **Energising cup of Mocha to boost your API automation skills. Simplicity and power.**

Speakers: Mila Anisimova, Olga B King (77 York Street, Sydney NSW 2000)

A single defect in web services, especially on a low level, can have a wide impact on all products and lead to a potential disaster in production. To prevent this, QA teams must use a set of approaches to test services and API's and ensure adequate coverage. API automation can save us time and nerves when it is done right. However, it can make us miserable when there is no understanding of where to start your automation adventures.

While developers use a super-powerful combination of Mocha and Frisby frameworks to support Behavior Driven Development (BDD), this is still often neglected by the testing community. This small team of two has decided to counteract this imbalance. When they began, Mila already had strong experience as a developer leveraging this framework, and Olga was able to work alongside Mila to learn the framework from the ground up. This presentation will demonstrate how you too can learn testing frameworks with only a sense of curiosity as your starting point. Through a lively experience report showcasing how they implemented ideas will allow you to find the courage to pair with your own developers on such a journey. While you can read the documentation on your own, the tips and techniques Mila and Olga will discuss can help you speed past some of the most common pitfalls.

We will share:

The true story of a team using API test automation to rally from days of painful testing to completing their tests within one day.

- Why is API automation so important and when should we start implementing it?
- Discover main pitfalls or downsides of API automation.
- Key features of testing frameworks: Jasmine & Mocha in conjunction with Frisby.

11:30am – 12:30pm T **Test Lab with Atlassian QA Cards** Pinaroo 5 (77 York Street, Sydney NSW 2000)

Speakers: Danielle Moore

Atlassian QA Cards - A fun, practical way of growing the testing mindset for developers

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11:30am – 12:30pm R **Testing With Humans. How Atlassian Validates its Products with Customers**

Speakers: Georgie Bottomley Pinaroo 4 (77 York Street, Sydney NSW 2000)

In this session you will learn about testing with customers. What it is, when to do it, and how it can help impact your teams work. You will learn how to create your own Atlab, Atlassian's usability testing lab, and how to run usability testing. We will give you examples of how Atlassian's team work within the agile process to ensure they are solving the right problems in the right way for their customers, so you can impact the value your team is creating.

12:30pm – 1:30pm N **Lunch** Grace Brasserie (77 York Street, Sydney NSW 2000)

1:30pm – 2:30pm T **Test Lab with Atlassian QA Cards** Pinaroo 5 (77 York Street, Sydney NSW 2000)

Speakers: Danielle Moore

Atlassian QA Cards - A fun, practical way of growing the testing mindset for developers

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1:30pm – 2:30pm R **Simplicity, Complexity and Security** Pinaroo 4 (77 York Street, Sydney NSW 2000)

Speakers: Laura Bell

We no longer live in a world where we build our applications from scratch. We build amazing creations using the blocks provided by libraries, frameworks and components. We trust widely and openly. We share and collaborate.

We design architectures that combine simple single purpose entities into massive complex coupled systems. Then we try to secure them. What could possibly go wrong?

In this talk we will explore how our approaches to development, architecture and trust change the security of our applications and environments. We will discuss the challenges of securing these systems and some of the practical steps we can take to bring simple security to complex systems.

1:30pm – 2:30pm R **To Boldly Go: Taking the Enterprise to SBTM** Balinga (77 York Street, Sydney NSW 2000)

Speakers: Aaron Hodder

Aaron will talk about a recent experience where a test team of business users needed to be coordinated to test a large, complex product in a way that was reportable, legible, and traceable. We didn't want to constrain the business users within the bounds of prescriptive test cases, but we needed to estimate, track, and report on the testing that was done. Daily.

Using a combination of kanban, visual test coverage modelling, and managing testing based on sessions, we rose to the challenge and performed testing in a way that was visible and reportable while giving the testers enough freedom to explore and investigate.

2:30pm – 2:45pm **Afternoon Break** Pre-Conference Area (77 York Street, Sydney NSW 2000)

2:45pm – 3:45pm L **Lightning Talks** Balinga (77 York Street, Sydney NSW 2000)

Lightning Talks are short presentations of 5 minutes or less. Because they are short, they force speakers to immediately get to the point.

Any attendee at CASTx17 can give a lightning talk. It does not need to have slides or diagrams - just your passion and willingnss to share it.

Stop by the desk and talk to Dawn Haynes to ask questions, refine your subject, and sign up to speak at CASTx17.

2:45pm – 3:45pm R **Auditing Agile Projects** King (77 York Street, Sydney NSW 2000)

Speakers: Michelle Moffat

As organisations strive to stay ahead in a competitive market place a greater emphasis is being placed on utilising agile project methodologies. However, without formal structures agile projects can be a challenge to audit. This session will cover:

• Defining the agile project methodology – what is it being used for and why?
• The importance of embedding internal audit into the agile project team
• How to audit Agile – debunking the post it note auditing myth
• Agile audit reporting for agile projects

3:45pm – 4:15pm B **Afternoon Break** Pre-Conference Area (77 York Street, Sydney NSW 2000)

4:15pm – 5:15pm K **The Secret Life of Test Automation** Balinga (77 York Street, Sydney NSW 2000)

Speakers: Michael Bolton

Have you ever tried to set up a development environment or other kinds of development tools? Have you noticed how fiddly a process it can be? In setting up a suite of tools, thousands of things must go right, and a single thing going wrong can derail the whole process.

Of course, dealing with software problems is part of the job. We are immersed in a world of technology and tinkering. We have tacit knowledge that allows us to handle problems with our tools. If we stumble, we have ready access to other experts with the tacit knowledge to help bail us out. Eventually we get things working. Yet, for a variety of reasons, most of this work goes unreported.

If managers were aware of the time, effort, and skills required to install, configure, maintain and apply test tools, the simplistic call to “automate everything” would be silenced overnight. Tools can be used powerfully and in valuable ways, but not without cost and risk. Therefore, testers should tell the whole story of putting tools to work in testing.