

Technology & Coding Reading List

We're looking forward to welcoming you to the Technology & Coding course, and we hope you're looking forward to joining us too!

If you'd like to start exploring the subject ahead of the start of your course, here's a list of resources that will help you engage with some of the ideas you'll be exploring in more depth across the programme. These are by no means in order of importance and you don't have to look at all of them – let your instinct choose what sounds more interesting to you.

Whether you're joining us for one or two weeks, the reading list below is applicable!

A huge part of technology, and one set to get ever more important as we race into the metaverse, is coding and computer science. Now, whether you already know how to code Python or you've never heard of HTML before, you'll finish your course with confidence in your coding ability. These resources are designed to give you an idea of what you can do with this knowledge after the end of our programme.

• Article: 5 ways to break into the video game industry by The Conversation – Have you ever played a computer game? From Fifa to Animal Crossing, there's a computer game out there to suit just about everybody, whether you spend hours playing each day or dip into a game if you have a spare five minutes before dinner. This article asks real video game developers for their tips on making just about the coolest job in the world your career.

Link: Read here

Article: Google and Microsoft are creating a monopoly on coding in plain
language by The Conversation – This one's a bit more advanced, but super
valuable, so do stick with it and remember to write down any questions you have
so we can talk about them in our coding lessons. We'll be learning HTML and CSS
coding, but this article envisions a future where we won't have to learn coding
languages to build things in tech – and it also explains why that might not be as
positive as it first sounds.

Link: Read <u>here</u>

• Video: How I Would Learn to Code (If I Could Start Over) by Namanh Kapur – One of the best ways to learn is from mistakes – and it often doesn't matter whether they're your own or someone else's! In this video, recent graduate and

tech guru Namanh Kapur shares what he would have done differently if he could go back in time and learn to code all over again.

Link: Watch <u>here</u>

When you're looking at tech, it can be easy to get bogged down in the intricacies of the coding, or the maths, or the electronic wiring, and forget what it is you're actually working towards. These resources will help you to remember the very real, very important impact tech can have on people's lives. As you're working through them, think about the effect you'd like to have through your work in tech. What skills do you need to build in order to make that impact?

Article: Flying Close to the Sun, Ingenia Issue 82 (2020) p.25 – In our eighth lesson together, we're going to be looking at rockets and the mechanics that allow us to hurl big chunks of metal into space in order to gather data on other planets, and find out more about our own. This article is all about a spacecraft engaged in finding out more about our sun. As you're reading, consider the different challenges this rocket has had to overcome in order to survive in close proximity to the sun.

Link: Read here

Video: But how does Bitcoin actually work? 3Blue1Brown – You've almost
definitely heard about Bitcoin and other cryptocurrencies before, but could you
explain what they actually are? Chances are you can't – and nor can lots of adults,
even those working in tech or finance! This video is great, because it walks you
through what the process of creating a cryptocurrency from scratch would look
like, allowing you to understand both why you would want to, and how it would
work.

Link: Watch here

Next Steps:

We're really looking forward to welcoming you to our course! If you'd like to take your learning to the next level, you're welcome to join one of our other programmes too – many of our students sign up to multiple programmes as they prepare for their futures.

At Oxford Scholastica, we run a residential Oxford Summer School every summer - you might be interested in the <u>Discover Technology Academy</u>. This is an immersive, two-week residential experience which takes place on the Oxford University campus – you'll take your understanding to the next level and meet like-minded students from around the world.

Other Resources:

Clarity about your future career direction will help you in your academic studies and in your university applications. We've created a quick Careers Test to help you to know what careers might suit you best. You'll then receive a personalised Careers Report, with recommended careers and resources to explore.

It's mostly aimed at 15-18 year olds, but you're still more than welcome to try it out for yourself. We hope you'll find it useful!

Try the Test <u>here</u>