

GCSE Bitesize Computer Science

BBC's Simon Lumb on security - transcript

My name's Simon Lumb and I look after games in BBC Future Media. Some of our most popular games are games for Mr Bloom and Tree Fu Tom on CBeebies, and for Scooby Doo and Wolfblood on CBBC.

To protect against people cheating in our games, we protect things with a secret and we use tools and techniques so that we know that the game, when it tells us what the high score is, it's come from the right user, it's come from a game that we recognise, and we prevent erroneous scores and things that aren't quite right. We have some intelligence there that just says, you know what, I don't think this information's correct. We validate it against a series of policies, so at every stage there are more and more gates you have to go through. We pay an external company to try and break that in every possible way that they understand. There are companies out there that are very, very knowledgeable on security, very, very knowledgeable on all the possible attacks and techniques that criminals are using to try and steal data, or try and break into systems, and we ask them to use all of those tools and techniques against us to see if we've plugged enough holes, and if we're secure and safe enough. We do that on a regular basis just to make sure that, you know what, when you get a high score, it's the right one and no-one can cheat you when you're top. If you don't protect the data in your database, then you could be breaking the law by not providing protection for people's personal data. That's very, very important that that's protected, and there are lots of things you can do in databases that are really, really powerful. But with any kind of powerful technology there are good ways to use it and there are bad ways to use it. If you don't protect against things like 'injections' - which is where somebody tries to insert a piece of code into a database query - then you're allowing your data to be weakened in such a way that it could be broken open and anyone could read from that.

If you consider it like your home, if you didn't lock your door then you're inviting somebody in to come in and go through all your stuff, and you don't want that. And you definitely don't want that if you're responsible for somebody else's home. And a lot of the data is somebody else's data, and you have a responsibility to make sure that it's as secure as possible, both for the law and to protect against the integrity of your software.