

JUNE: ONLINE SAFETY BULLETIN

Artificial Intelligence - an emerging technology

In the past few years, there has been plenty of discussions around Artificial Intelligence (or AI), and where it fits within our society. Whilst some people are cynical of AI, other people see it as a tool to assist them throughout their day-to-day lives. However, as many people learn about AI through the media and other forms of entertainment, we want to understand more about what it actually is, and whether there is any truth to those (somewhat scary) blockbuster depictions.

History of AI?

Al is a concept that's been around for a lot longer than many of us realise. In fact, Artificial Intelligence has <u>been around since 1956</u>, and has been based on the theory that every aspect of human learning can be repeated by a machine. The general idea behind AI is to create a computer system that can understand how to <u>resolve problems in a similar way to us</u>, and since the <u>2000s</u>, AI has slowly worked towards that goal.



The AI Basics

Artificial Intelligence (AI) refers to the simulation of human intelligence processes by machines, especially computer systems. These processes include learning (the acquisition of information and rules for using the information), reasoning (using rules to reach approximate or definite conclusions), and self-correction. Particularly sophisticated AI applications are capable of tasks such as speech recognition, image analysis, natural language processing, and even decision-making.

At the core of these AI systems are <u>machine learning</u> algorithms that use statistical methods to enable machines to improve with experience, and deep learning neural networks that model computation after the human brain's neural circuits, giving the machine the ability to learn and interpret complex patterns. The algorithm is trained on a large set of data, learning patterns and making decisions based on those learnings, with its performance improving over time as it is exposed to more data and iteratively adjusts its model to improve the accuracy of its predictions or decisions.

Although this might sound like AI has infinite possibilities, AI programs are not able to do anything other than what they are programmed to learn within their set task. Alongside this, the way that AI collects data and develops responses can be supervised and inputted by us. Currently, AI has a long way to go before it can be said to perfectly replicate humans, and even then, it will still require human oversight.



What AI Can Do

Whilst AI may seem like a big change in how we currently use technology, our day to day lives are already impacted by many forms of AI and machine learning mechanisms. Think of your <u>streaming service recommendations</u> that are tailored to your interests, or when you play games against a computer that gets harder every level, these are all forms of AI that are meant to support your experience of technology. All of these everyday encounters require machine learning and AI, with the intention to become more accurate as you use them.

In the past few years there has been a significant advancement in how AI is being used and how we can interact with it, and we're beginning to see how it can influence our lives in more significant ways. Now, instead of being a machine competitor behind a game of <u>virtual chess</u>, we are able to interact with AI chatbots that can answer our questions and tell us about the weather. Self-driving cars are another example of how AI may be used in the <u>near future</u>, and whilst the technology isn't perfect yet, modern cars are already using AI features to support with getting us from A to B.

Chatbots

People are only just starting to notice the impact of AI, and there has been a lot of discussion in the media about its use along with recent AI tools. The rise of AI chatbots, like ChatGPT and Bard AI, has seen a new wave of AI technology that we can interact with on a much larger scale. Chatbots have often been designed to make it easier to find out information, and they have been programmed to understand how we talk, so they can respond to us in a similar way.

However, with multiple different chatbots out there, all with their own unique capabilities and limitations based on their design, it's a good idea to research each properly to see which will be most likely to support you.

Currently, there are many valid concerns over <u>data protection</u> and the <u>accuracy of the</u> <u>information</u> that AI chatbots provide, so it is important to remember that chatbots are still in development and as such, have imperfections and limitations. Essentially, the chatbots we see today are still work in progress, and as with everything you see online, it is important to fact-check any statements made by them, and to understand that chatbots are by no means an identical substitute for human knowledge and experience.

Considerations for AI

Currently, there are a lot of concerns about how AI is being used, from <u>writing essays</u> for school children to creating hyper-realistic photos that can be used to misinform people. Alongside this, there have been worries about how AI can appropriately <u>safeguard</u> people from online harms. Many people have raised concerns after seeing chatbots used inappropriately. In response, AI creators are now training their AI models to <u>reject inappropriate requests</u> and include more accurate responses to try to make AI a safer experience for everyone.

As technology has slowly advanced to deliver automated tasks and improve our day-to-day lives, AI still has a lot to learn before it can come close to replicating the human experience. Even then, policies and governance around AI are only just beginning to consider the benefits and considerations around AI usage, and there is plenty of ongoing discussion about whether AI should be restricted in various walks of life.

National Online Safety have put together a parent guide on AI which we have included as part of this bulletin.



Encouraging children to learn different skills online

With the long summer holidays around the corner keeping children entertained can be a challenge. There are endless opportunities for children to develop new skills in their areas of interest using online resources which you may not have considered.

Dr Elizabeth Milovidov - Law Professor and digital parenting expert

Online skills range from the very popular (coding, languages, photoshop, photography, game design, app design) to the very necessary (communicating, writing, critical thinking, problem solving, typing) to the very digital sounding (website design, ethical hacking, programming) and more. Whatever online skills you try should be related to something that your child already loves or that they are interested in trying out using this 3 easy steps:

1. Do your research – create a list of activities that your child loves (known interests) and a list of activities that your child has never tried but might be interested in (unknown interests). Then brainstorm on online skill related to both lists that are child-friendly, age-appropriate courses and training. Ask other parent/carers, friends and family members for ideas and recommendations on camps, courses or training.

2. Co-design with your child – now that you have some idea of the possibilities, sit down with your child and co-create an activity plan. Include downtime, offline time, family time, outside time, activity time, etc. Invite your child to do some online research as well (increasing those online research skills already). If your child loves arts, crafts, science, music or film, look for online activities in those fields. Also look to museums and family centres for their online offerings.

3. Agree, test and revise - try out the activity over the weekend by watching intro videos, reading reviews and just playing. Then test your activity plan over a school break and be prepared to revise and update. Using the 3 steps above, you really can create a plan that encourages your child to get online, learn something new and manage some of that school break "empty" time.

Encouraging children to learn different skills online



Andy Robertson - Freelance Family Technology Expert

Many key online skills are part of modern video games. However, parents may worry that encouraging this can open the door to more screen time.

The best approach is to engage with your child about the games they are currently playing. Watch them play, and talk to them about what they are doing or interested in. This, along with a bit of research, means you can then find experiences that double-down on the coding and content creation behind their favourite games, which they may not find themselves.

For example, if your child loves Fortnite, you can encourage the building and map creation aspect of the game. Or, using a tool like Gaming Database, you can find similar games that may pique their interest.

Games Lists

There are offer a number of great suggestions for games, such as:

- <u>Game Builder Garage</u>: enables anyone to make video games. Unlike other game makers, this offers in-depth lessons to go from the basics to advanced techniques. The cute Nodon characters that power the visual drag-and-drop construction, enable players of any age to make and share their own experiences on the Switch.
- <u>Hidden Through Time</u>: an ideal game for young players with colourful hand-drawn visuals and without a strict time limit. From missing dinosaur eggs in the stone age, to a king's crown in medieval times, can you find them all? Discover, create and share worlds with your own hidden treasures in Hidden Through Time!
- <u>Dreams</u>: create video games, music, animations and art in Dreams. Everything is controlled with accessible menus and interactions via the PlayStation 4 or PlayStation 5 controller. This makes it easy to dive in and create something simple.

As skill and imagination grow over time, players can take their creativity in any direction that they wish to make highly detailed and nuanced experiences: quirky art, professional-looking games, original music, detailed sculptures. These can then be shared online or just kept for the family.



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Getting involved in your child's gaming in this way not only steers them toward some great experiences that they may not discover for themselves but sets them up for a balanced and varied diet of gaming. Learning the skill of knowing when to stop is really powerful if it becomes part of their online experience. But also, not just playing what everyone else is playing can broaden their horizons and maybe even lead to a career.

National Online Safety - A reminder that all of our parents are able to access more detailed information on the National Online Safety platform, access details below.

To create a parent account, please follow <u>https://nationalonlinesafety.com/enrol/wellington-school</u> and complete your details. You can access National Online Safety online via any device- including via a brand-new smartphone app. To download the app, please go to:

https://apps.apple.com/gb/app/national-online-safety/id1530342372 https://play.google.com/store/apps/details?id=uk.co.nationaleducationgroup.nos



What Parents & Carers Need to Know about A

WHAT ARE THE RISKS?

Artificial intelligence – particularly in terms of how it generates natural language – has seen significant development over the last six months, with companies releasing new A Hassed software or adding on A seems to existing apps (such as Snapshot, for example). One form of A to become especially popular has been the 'Al friend' or chatbot, as children eagerly experiment with these new=found computer=generated companies. There are now humanous apps available with this Virtual friend' functionality, with the likelihood of it being added to other successful platforms coen.

CONTENT AND ACCOUNTABILITY

Al chatbots may not always be able to escognise when content to age inappropriate or hormful and should be filtered out, to there's a possibility that children could be exposed to attensive language or explicit material while conversing with their virtual triend. The companies producing such Al relutions are also unlikely to take tesponsibility for any content that their algorithms generate.

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14

REDUCED SOCIAL CONTACT

An excessive reliance on chatbots for social interaction could potentially cause a child to begin reducing the amount of face-to-face communication they have, leading to eactial isolation. If young people become dependent on chatbots to provide companionship, it cauld very likely hinder the development of their real-life social stills.

LACK OF SENSITIVITY

Chatibol software isn't always capitation of a substantial software substantial cubs or reception signs of distress in children, as most humons would. It might therefore fail to respond appropriately. Al-misinteepreting what it's being told or replying insensitively to a young user who's clescally struggling could potentially impact a child's emotional we being or associate any existing emotional issues.

UNINTENTIONAL BIAS

Al companions are only as reliable as the information they've been programmed with. The algorithms they use, therefore, may unintentionally premote bias, elenadypes or discriminatory behaviour (as many originate from the USA or the UK, for instance, they can display a distinctly westermesintric worldview). This could lead to children developing sixwed attitudes and behaviours.

COGNITIVE LIMITATIONS

9

Although many are now underslably advanced, Ampowered chatbots still have limitations in terms of understanding complex concepts, context and nuonce. Depending heavily an chatbots to help with learning or solving problems may sturt the development of a child's own powers of critical thinking, creativity and ability to engage in aper-ended discussions with other people.



Chatbots typically collect data about users, including personal intermation and conversations. This is ortenably to improve the This is extensibly to improve their performance as they gradually learn about our behaviour — but many expects are warning that there may be significent fields associated with how this intermation is stored and used (the possibility of potential breaches or misuse by third parties, for instance).

Advice for Parents & Carers

CHAT ABOUT CHATBOTS

11

If your child is already expressing an interset in Al apps, a released, natural chat should help you to discover which are they're awars of and how they're using them (or are planning to). Discuss these options with your child and perchaps de your own research to ensure you think they're suitable. Once you're totally happy, you could sh with your young an and begin exploring Al chattoots together.

CREATE A SAFE ENVIRONMENT

If your child is keen to engage with Al chetbets, encourage them to do so in a sate environment: ideally in a shared space at home, so you can easily keep an eye and ear on their progress. Set up appropriate content filtering measures in advance — and genity remind them that you'll be close by and ready to help with any questions or concerns that may arise.

FIND A BALANCE

It's unlikely that most children wij have even considered the potential risks attached to having a virtual companion. So it's probably wise to explain some of the possible hazards and challenges of Al chaltbats to your child. In particular, emphasise that Al ian't a neal person (however much it might sound like one) and may accasionally tell them something that isn't entirely impartial or accurate.

DED INESSAGE

Work alongside your child to establish the right balance in terms of how they might use Al-powered chattacts — and when it's appropriate. It's important to make sure that children are still getting pienty of apportunities to learn to solve problems for themselves, as well as building their interpresent skills through face-to-face conversations with triends family members and teachers.

TAKE CONTROL

As with any form of app or game, when it comes to A) chatbots we'd strongly recommend that you consider employing parental controls (either on the device being used or within the software itself) to manage which apps your child can download and use. This is particularly important for younger children, who may be more at risk of being upset or trightened by inappropriate content.

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