



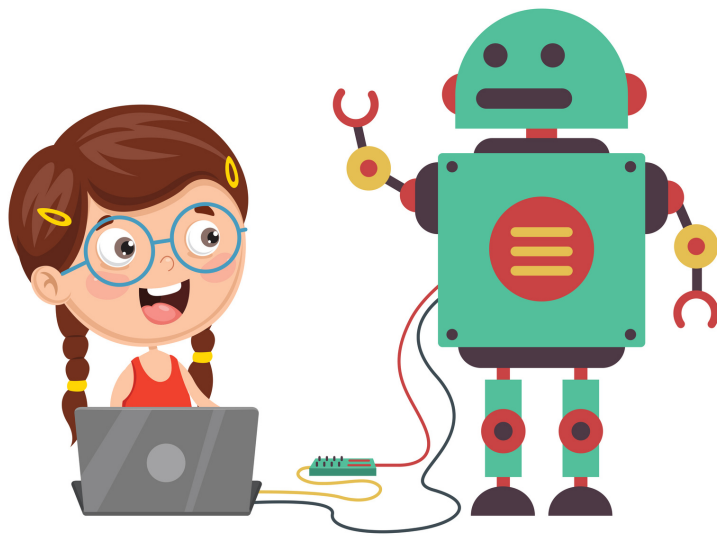
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# CODING CLUB

MAY HALF TERM HOLIDAY NEWSLETTER



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## SETTING YOUR CHILD UP FOR A BRIGHT FUTURE!

Ya Ali Madad,

Artificial Intelligence (AI) is when machines are used to perform complex tasks that would normally require human intelligence. The development of AI has spanned over half a century and it is not going anywhere! From autonomous cars to digitised educational resources tailored to students' responses. From diagnosing diseases early to one day you having your own AI assistant that helps you perform tasks. AI is a field that is only going to be more important in our future lives

Amongst other skills like analysis and managerial, technical skills are important for those working in AI.

Parents, whether your child ends up in Artificial Intelligence or not, being exposed to STEM activities like coding will help them start their journey towards a bright future. The activities in this newsletter have been carefully chosen so that even if you have not done coding yourselves, you can still support your child. Why not sit with them and do the activities yourself too?! Or head over to [Headstart](#) to take a free online course with Alison such as Introduction to Data Science or Introduction to Python.

To find out more about coding and how to support your child's education, contact us at [codingclub@iiuk.org](mailto:codingclub@iiuk.org).

**The Coding Club team**



## MAY HOLIDAY ACTIVITIES: EDUCATIONAL GAMES TO LEARN AND IMPROVE CODING SKILLS

### EARLY PRIMARY STUDENTS

In this activity, **AI for Oceans**, you will learn to 'clean the oceans' by helping your robot identify whether the floating object is either a 'fish' or 'waste'. You will teach the robot to recognise the difference between them and help it learn patterns and image difference. The objective of this activity is to teach students how to train and test a machine learning model, a form of artificial intelligence. Students will be able to explore how training data is used to enable a machine learning model to classify new data.

Machine learning refers to a computer that can recognise patterns and make decisions without being explicitly programmed. Learning about AI helps kids to think creatively, reason with and have solution-orientated mindset, which is important at any age. Furthermore, these activities enable children to develop an interest in STEM as they learn through practical knowledge about the different aspects of AI.

### LATE PRIMARY STUDENTS AND ABOVE

Artificial intelligence (AI) enhances speed, precision and effectiveness of human efforts.

**Cognimate**, an AI education platform, offers students, through games and projects, an understanding of how artificial intelligence is applied in the real world. This website has tutorials on how to create projects such as teaching a computer to play rock, paper, scissors, and using AI to train a computer to recognise a writer such as Shakespeare based on their writing style. Click on "Projects" on the top bar to see all the available activities.

Having a firm grasp of AI is important, as it forms the basis for all computer learning and it's the future of all complex digital decision making.

If you have any questions about coding or any of these programmes, feel free to email [codingclub@iiuk.org](mailto:codingclub@iiuk.org), for help!







## CODING AND OUR DIVINE GIFT OF INTELLECT

Coding is one area where we can use the gift of aql (intellect). The use of intellect has been used multiple times in the Qur'an, that invites us to ponder and reflect on Allah's signs. In addition, Mawlana Hazar Imam in an interview for the Paroquais de Portugal, reminds us of the importance of Intellect.

**"In Shia Islam, intellect is a key component of faith. Intellect allows us to understand the creation of God. We live in a world in which there is increasingly more information that people can employ. The question is, how we access it and how we employ it".**

Lisbon (Portugal), 23 July 2008

As we approach the freedom of intellectual enquiry, how are we ensuring that we do not lose the sight of its ethical and spiritual dimension? What are we going to code that will help us understand and reflect on Allah's signs or to help people around us?



## WILL AI PROPEL US INTO THE FUTURE OR PULL US INTO THE PAST?

The power of AI is undeniable. The technology is far reaching and will impact virtually every industry. But AI systems are only as good as the data with which they are trained and often reflect the same biases as those who build them.

In 2015, Amazon created an AI-employment recruitment tool. The tool was trained to recognise patterns in applicants who historically applied to the company. As the technology industry is predominantly male driven, the AI tool was trained to incorporate a gender bias, heavily discriminating against women who applied. Amazon publicly admitted the flaws of its technology and abandoned its use in determining eligibility for employment.

With over 80% of AI jobs currently occupied by men, diversifying the workforce to involve more women in the development and design of AI tools will be essential to identify such biases and ensure the future success of AI, rather than reverting to historical bias.