

EDISI 10

JUN 2023

BULETIN APB

AKADEMI PENGAJIAN BAHASA
UNIVERSITI TEKNOLOGI MARA
CAWANGAN NEGERI SEMBILAN
KAMPUS SEREMBAN



Why is Learning Programming Not Only for STEM Students?

TS. DR. RATNA ZUARNI RAMLI & NURUL 'AIN JAMION

UITM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

Programming is becoming essential in almost every industry. With the increasing use of technology in various fields, programming knowledge has become essential. From marketing to healthcare, programming skills can be applied in many industries. Programming offers a broad range of opportunities: The demand for programmers is growing day by day, and with the rise of the remote workforce, more opportunities are becoming available to those with programming skills. There are many programming jobs, both in and outside STEM (Science, Technology, Engineering, and Mathematics) fields, such as web development, app development, game development, and software engineering.

Back then, students in natural science (such as Biology, Chemistry and Physics) always had the “Why?” questions; Why is programming a compulsory subject in their degree? Why do they need to learn programming?



The teachers have done their best to explain and relate programming to the field, and fast forward ten to fifteen years later, programming is no longer essential to STEM students but to anyone, regardless of the field.

Programming improves problem-solving skills: Learning programming helps you develop problem-solving skills that can be applied in many aspects of life. It enhances your ability to think logically, analyse problems, and find solutions. Programming also is a creative process. It provides an opportunity to create something from scratch, and exploring new ideas by coding is always exciting. Learning programming can help develop a creative mindset by pushing individuals to think logically and analytically and always search for solutions to problems. Programming requires individuals to think outside the box and approach problems in new and innovative ways. It encourages individuals to be imaginative and to experiment with different ideas until they find the best solution. As they continue to work through difficult programming challenges, individuals may learn to think more abstractly and creatively. Additionally, programming allows individuals to create their own applications, websites, and games, enabling them to express their creativity in a unique way.

Learning programming involves computational thinking, which goes beyond coding skills. Computational thinking associates with breaking down complex problems into smaller, more manageable parts and using logic and algorithms to solve them. When learning programming, individuals must learn how to identify problems and develop algorithms to solve each part before combining the pieces to solve the larger problem. This process helps individuals become better problem-solvers and critical thinkers, skills valuable not only in programming but also in many other areas of life.

Learning programming is not just for STEM students. It is a useful skill for anyone who wishes to improve their problem-solving, creativity, and computational thinking abilities, regardless of their interests or field of study. Figure 1 shows some of the celebrities that have learnt programming and encourage everyone to start coding.

Figure 1: Five Celebrities who know how to code



Karlie Kloss

Karlie Kloss was a Victoria's supermodel. She loves math and science, so she enrolled in a coding camp.



Jimmy Farlon

"If there's a computer-programming sketch, I will somehow make that happen,"



Ashton Kutcher

Kutcher has backed Code.org and Hour of Code, initiatives that aim to help children learn to code. Kutcher is also known as an astute tech investor.



Will.i.am (Black Eyed Peas)

When a journalist asked him whether music or coding was cooler, Will.i.am didn't hesitate with his answer: "Coding. By about 10 times. A trillion times. It's the most creative space."



Chris Bosh

Former NBA star Chris Bosh made a wave in the tech world in 2013 when he wrote: "Here's Why You Should Learn to Code."

Reference

<https://www.bestcolleges.com/bootcamps/guides/celebrities-who-know-how-to-code/>