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Education & tech alliance needed to build digital skills

By Andrew Radcliffe, Co-Founder, Spyrosoft

The rate of adoption of technology and IT in the workplace creates unprecedented demand for new skills

Andrew Radcliffe, Co-Founder of Spyrosoft, explores the importance of educators and tech companies working together to provide a digital education

In the age of the fourth industrial revolution, digital transformation, and web 3.0, it's vital that young people have access to a 'digital' education to give them the right skills for the job market. From learning basic data management to more complex skills like coding, understanding ever-evolving technologies such as Artificial Intelligence (AI), Machine Learning (ML) and the rapid shift to the cloud, placing more emphasis on teaching young people these disciplines will be instrumental in closing the skills gap. Importantly, this will fill job roles and ultimately, help the sector to generate billions for the economy.

While there are many experts currently working within these sectors, the rate of adoption of technology and IT in the workplace creates unprecedented demand for new skills. This is in part a

result of the Covid-19 pandemic, which has accelerated the rate at which companies have adopted new ways of working. This trend shows no signs of slowing down, so the talent pool must keep up. Additionally, there is a need for a new wave of tech professionals to create a more diverse workforce and bring creative skills to the table.

However, many academic programmes don't currently fully reflect the needs of the job market or its trajectory, while graduates are leaving university without the opportunity for further training. In fact, there is a significant gap between technology requirements in the workplace, and what many schools are currently delivering. People who want to shift their careers towards digital disciplines also face challenges and may only be able to teach themselves or use online courses in their spare time to get the knowledge they need.

A bright outlook for digital experts

There are plenty of reasons to believe that IT and technology skills will continue to play an integral role in shaping our lives well into the future. There are strong indicators that demand will increase even further for roles such as software and web developers, programmers, testers, database and network administrators, computer support specialists and other occupations within the field.

There's also a need for people with design interface skills, which often requires a lot of creativity. As such, graphic design and similar disciplines, and the ability to combine these with technical capabilities, will be a positive for anyone hoping to transition to tech.
According to GlobalData's Job Analytics database, hiring for IT has grown 4.3% in Poland alone month on month from April to May 2022. Junior-level job postings dominated the IT and tech recruitment market in Poland during May, holding a share of 65%, up by 29% in April. Similarly, entry-level roles increased by 31% compared to the previous month.
According to SoDA's recent report, *Covid-19 impact on the software house industry in Poland*, 70% of Polish software development companies have a strong positive outlook towards the future and one-third of companies feel that the Covid-19 pandemic has had a positive impact on them. This may be reflective of the strong growth and high profits enjoyed by Polish companies, with increased revenues and growth being enjoyed by many. Software companies are also hiring more employees, particularly developers and supporting roles, while salaries increased by 10-20%. This is indicative of how well Poland is doing to nurture tech talent and bring people into the workforce.

The more companies experience further growth and profitability, the more experts they need to on-board. Anecdotally, IT and tech companies also need senior roles filling. With a squeeze on

skills, people may find it challenging to move up the ladder internally because it may be difficult to find their replacement. Hiring new entry-level and junior-level developers, testers and supporting staff will support this pipeline in the short term, while some businesses are introducing apprenticeships and upskilling their workforce to generate a pipeline of skilled workers to plug the gap as quickly as possible.

Building skills with a digital education

To fully harness the potential of prospective IT and tech employees, and support 'quick fix' initiatives to bolster the workforce, a digital education at school level is essential. Just as mathematics, language and physical education are integral to the school curriculum, there is a need for comprehensive IT and technology courses to be considered in the same way. These should emphasise not just basic computer skills, but disciplines with real usefulness in the professional world, such as coding. In order to achieve this, it's likely that the education system, from early years through to university, will need to undergo a significant shift in order to become flexible and responsive to evolving workplace needs. A digital education should be accessible to everyone in the same way that traditional subjects are. This means ensuring that children can use a computer, laptop, or tablet with a stable WiFi connection and have the software and tools they need, in conjunction with guidance from teachers and professionals, to maximise their learning experience.

Crucially, learning digital skills should be interesting and engaging, particularly at school age. If children don't make the connection between learning computer skills and the vast range of interesting and crucial uses that they have in the real world, it can be a challenge. Key to this is demystifying digital skills, particularly for older children who may already think that coding and data skills are boring, maths-based or won't be useful for the future.

In reality, learning coding is like learning a language, and many digital skills can be taught in innovative and thought-provoking ways. Problem-solving and creativity are also key, which can support learning initiatives.

The here and now

Closing the gap between education and a career in tech can only be achieved with a combination of a revised education system and support from tech organisations. The two must meet in the middle.

For school children learning digital skills now, they still have several years of education to undertake before they are ready to enter the workforce. So, for now, Polish IT and technology companies are stepping up to provide internships and training for young people interested in becoming developers, to supplement their education. Alongside this, companies should work with universities to develop degree apprenticeships so young people can learn on the job.

It's also never too late to learn. While teaching these skills should be a fundamental part of the curriculum in all schools, many adults in the workplace are shifting their skillset to meet the current gap in the market. From self-teaching to online courses, combining soft skills picked up during their careers with new hard skills to suit digital jobs, there's a new wave of skilled employees moving from one career into IT and technology. It's not all about coding either – tech and IT companies need project managers, business analysts and other roles filling to work with their technical people. This opens the door even wider for anyone considering switching to tech.

It's the role of educators and industry experts to work together to lead the charge in encouraging young people to not only undertake a digital education, but to enjoy it. The education system needs to be shaken up, and businesses need to look at the long-term benefits of creating a pipeline of new talent to bolster diversity and combine the skills of logical and creative thinkers. Through this, we together can maximise our potential in a digital age.

Video of The Week

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News of The Week

Govt developing platform to update DigiLocker documents using Aadhaar

The IT ministry plans to first approach departments that issue important documents such as driving licenses, ration cards, voter ID cards, etc. Passports are likely to be brought in later.

The Center is preparing to launch a platform to update addresses and other demographic details across departments through Aadhaar. The facility will be available to citizens who store their documents in DigiLocker, according to a report in *The Economic Times (ET).*

Various government ministries are holding discussions to prepare an outline for the platform. The ministries of transport, rural development, and panchayati raj, along with the Election Commission, are discussing the specifics of the platform. The report said that the platform is at a nascent stage at this point and that work on conceptualisation and development is ongoing.

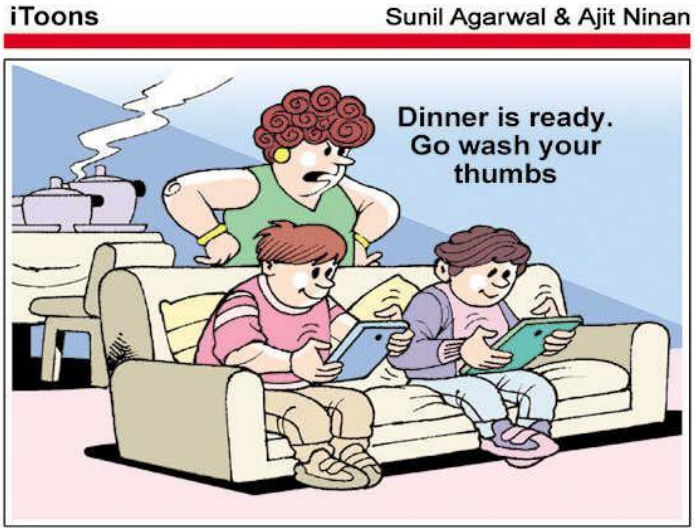
The IT ministry plans to first approach departments that issue important documents such as driving licenses, ration cards, voter ID cards, etc. Passports are likely to be brought in at a later stage, the report said.

The report quoted an official as saying, "We are talking to the departments currently to onboard them for the project."

The automated update mechanism is based on a consent framework, meaning citizens will be asked to provide their consent if they want to avail themselves of this facility. Thereon, the platform will seek the consent of the concerned department. A citizen may also choose not to avail the facility by denying consent, the report added.

The report said that the platform will be based on Application Programming Interface (API) concept, and various departments will develop their own APIs with Meity's help. APIs facilitate communication between two platforms or applications. DigiLocker is a government platform based on a cloud platform, for storage, sharing, and verification of documents and certificates.

E Toon



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