

technocamps

ANNUAL REPORT 2024



Introduction

The Computer Science Departments in Welsh Universities have a long history of collaborating on outreach, starting with the creation of the ITWales programme in 1993.

ITWales was a resounding success, with the membership of its business club numbering over 1,500, and an average of 850 unique visitors each day to its online business magazine.

As the world became ever more digital, the demand for computing skills grew. Unfortunately, at the same time, the appeal of computer studies in schools waned – along with the competence to teach it – as a creative computer science curriculum was slowly replaced by a mundane ICT curriculum. It became apparent to us that our greatest contribution to businesses would be to ensure a pipeline of talent, by tackling the problems of computing education in schools.

We thus created Technocamps in 2003, reflecting activities that we had earlier started, to promote computing education in schools. Our aim was to provide interactive and engaging workshops introducing school children to the exciting world of computing that they were not seeing at



The Swansea Team at our Annual Robotics Competition

school. However, the immediate success and impact that this was having empowered us to go further: to address the problems of computing education in Welsh schools – problems which eventually became recognised throughout the rest of the UK and beyond. After two decades, these problems persist, due to the rapid evolution of digital technologies and tools. Two years ago, ChatGPT appeared, and generative AI quickly transformed education, bringing a raft of unseen opportunities – and problems – which teachers were ill-prepared to address unaided.

Although Technocamps overtook and absorbed the wider ITWales programme, industrial engagement has not been forgotten. Our Institute of Coding (IoC) in Wales programme sees the Technocamps hubs across Wales addressing the digital upskilling needs of businesses, predominantly through Apprenticeships, Microcredentials and Professional Learning.

This report provides a snapshot of the various initiatives in which Technocamps has been involved throughout 2024. Reflected are – amongst much else – our engagements with primary schools through our Playground Computing programme; our secondary school engagements; our initiatives for upskilling teachers through our Technoteach programme; our business engagement activities with our IoC in Wales programme; and our research initiatives within our Education, History and Philosophy (EHP) research arm. With the rise of AI-enabled technology, Technocamps will be as relevant and necessary going forward as it has been to date.



Professor Faron Moller - Technocamps Director

Achievements



1,147

workshops
delivered



29,410

learners
engaged



269

schools
engaged



960

practitioners
trained



600

professional
learners



83

degree apprenticeship
students

technocamps

Playground Computing

Technocamps offers innovative sessions to primary schools across Wales. Throughout 2024, our Playground Computing programme was packed full of fun, inspiring workshops and activities. 25,985 learners have participated from 233 primary schools across Wales at 982 workshops.

This year our main offering for primary workshops has been our ongoing support of the BBC's micro:bit - The Next Gen campaign, providing handheld programmable devices to schools in Wales. Our workshops integrating these in each Area of Learning within the Curriculum for Wales have been extremely popular, with over 215 workshops delivered to primary schools on using these devices.

Another 203 workshops were delivered on robotics, focusing on developing problem-solving and programming skills and encouraging many learners and schools to take part in our annual robotics competition. In total there were 92 workshop topics that we delivered in 2024, offering a huge variety to meet the needs of individual schools and regions, as well as to develop a range of skills and understanding of the learners across Wales.

“ I thought that today’s workshop was really useful and I am [now] more interested in computer science. I used to not really care when it [computer science] would come up. I really enjoyed my session. ”

Year 6 Learner
St Davids RC Primary, West Cross

Playground
computing
technocamps

“ Thank you so much! Alex [Delivery Officer] adapted the lesson brilliantly to suit the children’s needs and was excellent with the class. The pace of the lessons was spot on as the class progressed through each lesson. ”

Practitioner
St Mary’s RC Primary, Llanelli

“ I think this workshop was good because in my own time at home I like to make games that need a lot of programming, so this workshop will help me learn. ”

Year 6 Learner
St Mary’s RC Primary, Llanelli



A young girl with brown hair, wearing a bright yellow high-visibility vest, is smiling and looking at a laptop screen. The laptop displays a web-based programming interface with colorful blocks. In the foreground, the backs of two other children wearing similar yellow vests are visible. The background shows a classroom with bookshelves filled with books.

Achievements

25,985

learners engaged

233

primary schools

982

workshops

STEM Enrichment

Achievements

3,425

learners engaged

36

secondary schools

165

workshops

Our work with secondary schools in Wales to deliver our STEM Enrichment Programme has been as busy as ever. The programme engages with learners over the whole school year, delivering a range of computer science and STEM-based activities and workshops, with the aim of encouraging young people to pursue STEM subjects post-16.

“ Learning coding can motivate me to make good games. ”

Year 7 Learner - St John Lloyd Catholic Comprehensive, Llanelli

Once again our LEGO robotics workshops have remained the most popular with schools and this year has seen a rise in the number of workshops on micro:bit programming requested. With so many primary schools across Wales utilising these devices thanks to the BBC's micro:bit - The Next Gen campaign, secondary schools are using this device as a way of introducing programming concepts in lower secondary school. In addition to the hardware topics, our workshops supporting the Computer Science

“ The world is becoming more dependant on Technology. It was fun to learn about websites and they [the deliverers] were very nice and helpful. ”

Year 11 Learner
Ysgol Penglais School, Aberystwyth

GCSE topics on Python Programming, Greenfoot and Boolean Algebra have also proven invaluable to both learners and practitioners alike.

We offer cross-curricular workshops on a wide range of topics including Scratch Ecosystems, Machine Learning, Rocket Design, and Python Art. We continue to assist schools with the Digital Technology GCSE, with workshops on Animation, Web and Games Development. Over the year, we engaged with 3,425 learners in 36 secondary schools with 165 workshops.



Learner from Ysgol Greenhill School in Tenby solving our Cryptography puzzle



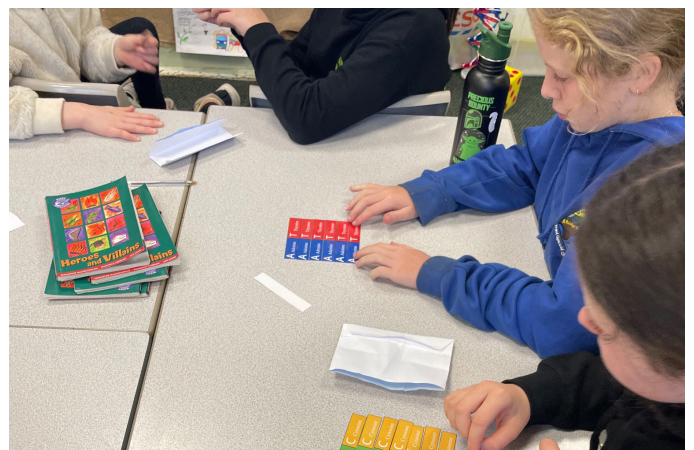
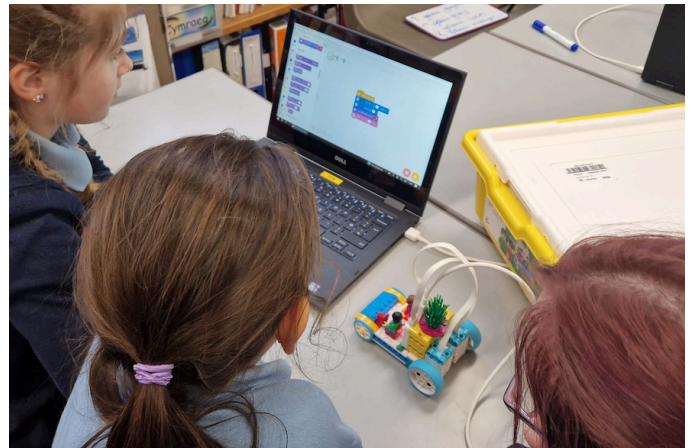
Technocamps Advanced summer workshop

Code Clubs

Our commitment to providing children with the skills they need to develop continues, and we now offer after-school virtual and in-person Technoclubs for children aged 9-16. Technoclubs are an opportunity for young people to gain computing experience during live, interactive sessions outside of school.

The club provides a free weekly session where learners develop new computer science skills, whilst completing fun and engaging activities. Young people of all abilities attend the clubs and they do not need any prior knowledge or experience in coding or programming to join.

The club is a stepping stone for those who have attended our workshops in schools, allowing them to continue to build their skills at their own pace and in a less formal learning environment. It is also suitable for complete novices as the sessions are designed deliberately to accommodate learners of all levels.



technoclub

Eisteddfod

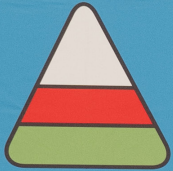
We were delighted to return to the Maes for this year's Eisteddfod yr Urdd in Maldwyn. Our activities this time focused on engaging young minds with hands-on challenges that combined technology and creativity. Visitors had the chance to test their skills on a steady-hand electric game programmed with a micro:bit, tackle codebreaking lockbox challenges, and even chat with an AI-powered robot—all through the medium of Welsh! It was fantastic to see children (and their parents!) from all over Wales exploring these activities, solving puzzles, and experiencing the intersection of technology and Welsh culture. For our team, it was not only an opportunity to share our passion for innovation but also to immerse ourselves in the vibrant atmosphere of the Eisteddfod, celebrate the richness of the Welsh language, and try out a bit of Cymraeg ourselves.

“It’s always a pleasure to see so many young people engaging with science and technology, and to be able to provide that awe and excitement in a fun and interactive way! I love visiting the GwyddonLe every year to be able to inspire the next generation of the STEM community through the medium of Welsh! Seeing the curiosity from and engaging in conversation with visitors from all corners of Wales and beyond is always a delight, and we’re proud to be part of the Eisteddfod yr Urdd!”

Daniel North
Technocamps Delivery Officer



Our ever popular Rubik's Cube solving robot and robot football



Urdd



Gwyddole



Prifysgol Abertawe
Swansea University

Swansea Science Festival

We ended the October half-term with another fantastic weekend at the Swansea Science Festival, an event that never fails to inspire and entertain families. Thousands poured in to enjoy two days packed with hands-on exhibits, interactive experiments, and engaging workshops.

Technocamps was once again honoured to be part of this incredible family-focused festival. Families shared how impressed they were, many laughing that their children had “insisted” on stopping by and showing off their merch from previous interventions with Technocamps. Our Sphero mini-golf activity was a favourite, with visitors of all ages trying to navigate a maze while others worked hard solving our cryptography puzzles to crack the codes for the prize boxes!

The Rubik’s Cube-solving robot took centre stage, challenging young people and adults to put their problem-solving skills to the test and race against our robot! Our railway table was hugely popular, with children exploring the safety features of our collision prevention system. This hands-on activity allowed them to operate model trains, free from the worry of crashes, all while giving adults a glimpse into the practical applications of our research for safer and smarter transportation systems.



The Computing History stand made a nostalgic return this year, presenting four iconic machines from Swansea University's History of Computing Collection. Among the line-up were two BBC Micros, a Dragon 32, and a classic 1999 iMac G3—each offering a different window into the evolution of personal computing. The BBC Micros were especially popular with adults who had used them during their school days in the 1980s. Many attendees were surprised to discover that all the showcased computers, including the iMac, had been manufactured in South Wales, adding an unexpected local connection to the exhibit.

“ It was wonderful to see so many learners recognise our stand and excitedly bring over their families to get involved with the activities! ”

Paige Jennings
Technocamps Communications Officer

With over 4,800 attendees throughout the weekend, it was a privilege to share our passion for technology with so many curious minds. We look forward to returning next year and continuing to spark excitement and wonder in the world of STEM!





BBC micro:bit launch - Swansea

PL Courses

With schools finding it increasingly challenging to release practitioners for long-term training, we have adapted the content of our 18-day computing for teachers course and provided it in a hybrid format. This new format sees practitioners attend 12 full days of training in person, with the rest of the content provided online via pre-recorded follow-along sessions. The units of the course are designed to improve their programming skills, addressing misconceptions their learners might encounter and what resources and activities to use to address these. We have 11 practitioners currently enrolled with EAS providing financial support to the schools to subsidise the cost of cover.

“ Great training, I will try this out and build confidence doing this. ”

Practitioner
Tre Uchaf Primary, Loughor

“ A great overview of micro:bits and it has really enthused me to learn more about coding ”

Practitioner - Danygraig Primary School, Port Tennant

For primary practitioners, we have continued to offer our online Primary Professional Learning programme. These two-hour weekly sessions were delivered after school hours, enabling primary practitioners to develop their computational thinking and programming skills in line with the relevant strand of the Digital Competency Framework.

As well as our programmes of courses, we have delivered many standalone PL events throughout the year, with micro:bit, Minecraft Education and Scratch Programming proving very popular with practitioners. In total, we have had 960 practitioners attend our sessions and courses, amounting to over 4,200 hours of digital upskilling.

technoteach

Achievements

960

practitioners
attended sessions

4,200

hours of digital
upskilling



Education Conference

This year's Education Conference took place at Swansea.com Stadium, bringing together over 50 educators from primary and secondary schools. The event offered a range of opportunities for educators to engage in hands-on workshops and gain valuable insights into enhancing their teaching methods in alignment with the Curriculum for Wales.

“ Very useful ideas to take back to school and share with other staff members. A chance to use equipment and test things we had learned. ”

Primary School Practitioner

The day started with an inspiring presentation for secondary school educators by Rachel Roberts from Gowerton School who shared her experience of growing computer science through collaboration, digital skills development, and involvement with Technocamps. This was followed by hands-on sessions which focused on transitioning from Scratch to Python using Pythch, equipping educators with essential coding skills, and discovering ways to integrate micro:bits into various subjects to make learning more dynamic and engaging.

For primary school educators, the day offered a lively and interactive experience through movement-based workshops that creatively incorporated dance with data programming lessons using micro:bits, providing a fun and engaging way to introduce computational thinking



Watch the video

tc1.me/edu-conference



and problem-solving skills. Additionally, educators explored how unplugged activities could support the new curriculum's progression steps, helping students develop key digital skills without needing computers.

We were also joined by teams from CyberFirst, CAS, Hwb, EESW STEM Cymru, Institute of Coding in Wales, EHP, Theatr na nŌg, and other partners, who showcased their latest initiatives and opportunities available for schools. The event proved to be a great success, and we look forward to welcoming educators back next year to continue inspiring the next generation of digital innovators.



technoteach

Case Study: Rachel Roberts

Tell us a little about yourself.

My name is Rachel Roberts, and I have been working at Gowerton School for the past nine years. I am the DCF (Digital Competency Framework) Coordinator and teach Computer Science across Key Stages 3, 4, and 5. One of my key personal goals is to increase the uptake of Computer Science at both GCSE and A Level, with a particular focus on encouraging more girls to engage with the subject. I am passionate about promoting diversity in STEM and creating an inclusive environment that inspires all learners to explore the exciting possibilities within Computer Science.

How did you get started working with Technocamps?

I first got involved with Technocamps when I needed support with coding the LEGO Spike robots. They delivered a session for my coding club, introducing basic coding techniques, which the learners thoroughly enjoyed and found incredibly beneficial. This initial experience established a connection, and since then, Technocamps has provided tremendous support through workshops, trips, events, and competitions that have greatly enriched the learners' learning experiences.

Their focus on encouraging women into STEM particularly resonates with me. I've been keen to involve my learners in their inspiring workshops aimed at promoting diversity in STEM. Beyond the learners, my cluster schools' digital leads and I have also embraced Technocamps' initiatives, attending their International

Women's Day event annually. It has become a tradition we look forward to, celebrating and advocating for greater inclusivity in STEM fields.

Which part of the work with Technocamps has been most beneficial for you?

The most beneficial aspect of working with Technocamps has been developing fun and engaging coding activities with the learners. These activities have played a significant role in encouraging more learners to choose Computer Science at GCSE, which is a key focus for me. The support from Technocamps has opened up incredible opportunities for my learners, including the introduction to the CyberFirst scheme. This has already had a huge impact, with sixth-form learners applying for bursaries and gaining access to sector leaders who share their experiences during school visits.

Additionally, I greatly value the training and development sessions provided by Technocamps. These sessions have equipped me with fantastic ideas, as well as new software, websites, and tools that I can integrate into the classroom, ultimately enhancing the learning experience for my learners. Their support has truly been transformative for both my teaching and the opportunities available to my learners.

How are the skills and knowledge provided by Technocamps used in your field or day-to-day work?

The skills and knowledge provided by Technocamps are integral



to my day-to-day work as a Computer Science teacher and DCF Coordinator. Their resources and workshops have enriched my ability to deliver engaging lessons, particularly in coding and STEM-related activities. For example, I regularly incorporate the fun and practical coding techniques they introduced to my learners, which have made programming more accessible and enjoyable, inspiring greater interest in the subject. In recent sessions, we have learned about a new website called Pytch which was fantastic. We have been struggling with the process of moving from block coding into Python and this is the perfect transition, so we are looking to integrate this into our curriculum soon.

Is there anything else you would like to add?

I cannot thank Technocamps enough for introducing me to so many opportunities for the learners. Without them, I know I would not have been able to get as much interest in this subject as we have, without spending a lot of money and time. Thank you.

Pytch

Technocamps has collaborated with staff at Trinity University Dublin on the Pytch project. Their brand-new web app, designed to help learners in writing their own programmes, aims to make Python coding accessible to learners of all levels by providing interactive tools and resources. Pytch uses the learners' pre-existing knowledge of block-based programming languages like Scratch to give them a head start when programming more advanced, text-based languages like Python. The latest version of the app is available online via Pytch.org, offering guided experiences, which allow users to navigate through the process of game development step by step.

Developed in collaboration, with over 300 learners and 30 educators, Pytch has been fine-tuned to meet the needs of both learners and educators. Classroom activities have been carefully developed, with feedback from users contributing to shaping the programme. The new features have been piloted with learners from TU Dublin and have received very positive feedback.

As part of the collaboration, we visited Dublin to present our approach to outreach in Wales and how we support schools across the country with digital skills. This also gave us an opportunity to learn about STEM outreach in Ireland and to make use of their best practice in working with isolated and rural communities outside of the school environment.

“ Having such an innovative bridging tool which can leverage our learners’ pre-existing knowledge is so impactful when teaching new skills, and Pytch does this perfectly. ”

Dr Lee Clift
Technocamps Teaching Fellow

Technocamps presented the Pytch tool to secondary educators at our annual Education Conference, with Glenn Strong from TU Dublin attending for a question-and-answer session and to receive feedback from practitioners in Wales to influence future updates of the tool.



The Technocamps and Pytch team

Micro:bit Live x Hwb

During 2024 we continued our partnership with Hwb through online events following our collaboration on the Hwb Presents micro:bit - The Next Gen launch event. At the end of 2023 we partnered with the micro:bit Foundation to become the primary deliverer of micro:bit content in Wales. In February, we delivered 3 launch events on behalf of and in collaboration with the micro:bit Foundation, where 175 practitioners had a hands-on session on how to use the micro:bits across the Areas of Learning of the Curriculum for Wales.

The Hwb Presents launch event was aimed at practitioners as a short PL session to inspire confidence and encourage them to use their new micro:bits in class (97% of schools in Wales signed up to receive their class micro:bits during the 2023 launch). Following this event and discussions with Hwb, we changed our approach

to focus on delivering Live Learning sessions. This enabled schools across Wales to sign up for and join the sessions remotely, enabling us to have a direct impact on the learners. It also encourages collaboration from the learners as they have access to the chat and can ask/answer questions, making it far more engaging than a pre-recorded video.

The two sessions delivered so far were thematically linked to Bonfire Night and Christmas. For these sessions, learners explored how to use the new data logging functions on the micro:bit (this was a large part of The Next Gen launch) and came to understand new programming concepts when integrating data logging into their projects. The two projects were a sound detection system for Bonfire Night to avoid the loud sounds (for those family members and pets who may not enjoy them), and a Santa detector to try and find out what time Santa dropped off our presents (with the detection level set intentionally low to preserve the magic)!

Achievements

175

practitioners attended
micro:bit launch

97%

of schools in Wales
signed up for micro:bits

1,040

learners attended live
learning sessions

43

schools joined live
learning sessions



Learner programming a micro:bit



technocamps
Hwb

Institute of Coding in Wales

The Institute of Coding in Wales is the business arm of Technocamps, working with individuals aged 16 and over. Our programmes, including Short Courses, Skills Bootcamps (Microcredentials) and Degree Apprenticeships, are designed to develop tech skills and enhance career opportunities.

Degree Apprenticeship

Our Degree Apprenticeship programme combines traditional academic learning in a university environment with work-based projects that allow learners to apply their newly acquired academic knowledge to their roles in their companies.

This innovative programme allows the students to 'earn and learn' - to remain in full-time employment whilst earning a BSc (Hons) degree that contextualises their academic learning in their workplace environment.

Courses are fully funded, with support from the Institute of Coding in Wales and the Welsh Government through MEDR (Commission for Tertiary Education and Research).

In 2024 we recruited 32 apprentices to join our Degree Apprenticeship programme. We were happy to see

that we were able to secure 12 new businesses and organisations across South Wales who wanted to upskill their staff through our programme, as well as also having many returning employers allowing further staff to start on their educational journey with us. We have students from a wide range of employers including Admiral, CGI, NHS, Department for Business & Trade, as well as many SMEs, including micro businesses.

We also saw 14 students celebrating their graduation in December after completing their studies in July. The 3-year programme currently has 69 students being trained.



Swansea University
Prifysgol Abertawe



Achievements

69

currently enrolled

32

new recruits

14

2024 graduates



Teaching Staff and DA Graduates of 2024

Case Study: Jake Laycock

Tell us a little about yourself and your work.

I'm a Software Engineer at CGI based in South Wales. I joined the Swansea DA course through CGI straight after finishing my A-Levels. I have a passion for problem-solving and tackling challenges, which is at the core of what I do as a Software Engineer. My work focuses on the banking and financial markets sector, where I contribute to various projects involving both front-end and back-end development. Outside of work, I enjoy travelling and diving into a good crime novel.

How did you hear about and engage with the Degree Apprenticeship programme?

I applied to several Degree Apprenticeship schemes across the UK and came across the Swansea DA programme while applying for a role at CGI. After researching the course, I was impressed by the range of topics it covered, especially when compared to other programmes. One of the key benefits was being able to directly apply the concepts learned at university to my work, making the content both relevant and specific to a software engineering career.

Another highlight was being part of a group with such a diverse mix of people. While we all shared a technology background, everyone brought different experiences, with some having over 30 years in the industry and others, like me, just starting out. This mix of perspectives created a great atmosphere for learning and sharing ideas, and it was fantastic to be part of such a well-rounded group.

How did you first get involved with computers and what inspired you to take this path?

I've always been curious about how computers work and enjoyed solving problems with them, so moving into programming felt like a natural step. My journey into coding began in secondary school during my GCSEs, where I was fortunate enough to take a Computer Science course. It was my first real exposure to programming (using Python). I loved the creativity and freedom involved in writing my own code, and that's when I knew I wanted to become a software engineer.

My computer science teacher at A-Level recommended looking into Degree Apprenticeships, and the idea really stood out to me. I saw the value in gaining real-world industry experience alongside my studies, and I knew that a Degree Apprenticeship would offer the best of both worlds, setting me up for success in the field, at the very start of my career.

How has the DA helped you?

Completing the DA programme has helped me in many ways. Time management stands out as a key skill I've developed. Early on in the course, I had to learn how to balance work, university, and personal commitments effectively, which was a challenge since it's much more demanding than a typical university course. The course covered a wide range of topics, from ethical concerns of writing code to network security, which helped broaden my knowledge and improve my versatility at work. Applying what I learned has made a noticeable difference in my effectiveness as a Software Engineer.



One stand-out experience was the third-year dissertation project, where I had to design and develop a complex application independently. That process pushed me to become a more capable, confident, and self-sufficient software engineer. This directly advanced my career, taking me from a Degree Apprentice to a Software Engineer. I wouldn't be where I am today without the skills and experiences gained.

How do you think you will use the skills and knowledge you have gained in the future?

The skills I've gained are highly practical and adaptable, which means they'll remain valuable no matter what kind of project I work on in the future. The skills aren't tied to any one technology or trend - they're transferable across different languages, frameworks, and industries. Looking ahead, I know these skills will allow me to take on more complex and varied roles in Software Engineering. Whether I'm leading a project, contributing to a team, or exploring new technologies, the knowledge I've gained will help me stay relevant in a rapidly evolving field. If you have the opportunity to join the DA programme, go for it, it's a fantastic way to broaden your knowledge and skills.



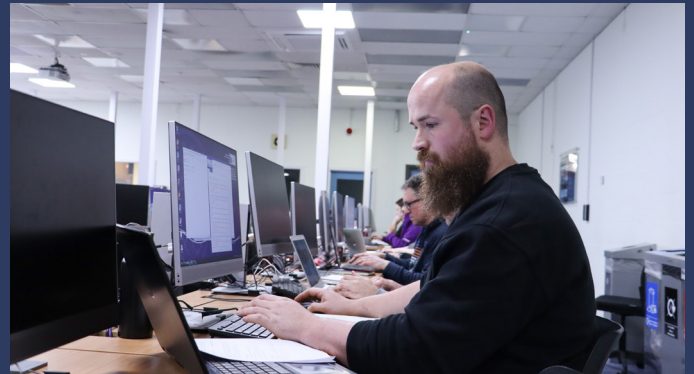
Funded by
UK Government

Short Courses & Skills Bootcamps

Our Short Courses and Skills Bootcamps (Microcredentials) provide accessible pathways that support professional development at every level, equipping learners with the skills necessary to thrive in the evolving digital economy.

In 2024, we delivered 14 Short Courses and 7 Skills Bootcamps to almost 600 learners! A range of topics were included such as Python Programming, Machine Learning, Generative AI, Cyber Security, Excel and Project Management.

This project is part funded by the UK Government through the UK Shared Prosperity Fund.



“ It was a very useful course as a beginner in coding, all aspects were well explained and the teaching was performed at an ideal pace to be able to keep up but not be under-challenged. ”

Introduction to Python Programming Microcredential



Swansea University
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institute of
CODING
in wales technocamps



Introduction to AI workshop at Swansea Central Library

Case Study: Victoria Goodall

Tell us a little about yourself and your work.

I'm a Test Analyst at Digital Health & Care Wales (DHCW). I'm currently working on the Welsh Immunisation System, which manages the administration of Covid-19 and flu vaccinations in Wales, so it is very rewarding work. More recently, I've been working on automating our tests, which has involved coding in my job for the first time. My favourite thing about testing is the feeling of leaving something in a better place than you found it, and that's what motivates me when I log on each day.

How did you hear about and engage with the Degree Apprenticeship programme?

Someone in the online work staff room posted an advert for the Technocamps Microcredential courses, and I signed up for the Computational Thinking class. The course itself was interesting as I'd never studied logic before, but what really surprised me was how much I enjoyed being back in a learning environment. One evening on campus after a test, I was chatting to Olga and she told me about the degree programme. I asked for some more information and shared it with my manager, who was very encouraging as we talked through the idea of me studying for three years. DHCW is great at supporting employees who want to take up Degree Apprenticeship programmes – I quickly got told it would be fine for me to apply, and they've accommodated my study leave each week since.

How did you first get involved with computers and what inspired you to take this path?

I was always using computers and game consoles at home but I wasn't remotely interested in it as a career. I did well at school, but maths and science weren't my interests, and we didn't study Computer Science. After graduating with a humanities degree in 2015, my first job was in testing but I then moved into a business role, which evolved into product management, as this was a more natural career progression for someone who did not come from a technical background. I loved my job, where I was responsible for a product roadmap; it was what made me realise I wanted to work in software projects long term, because I love being a part of making something useful. But over time I felt like something was missing. I had gained valuable business experience, but I was very aware of my technical skills gap. Was there a way for me to have both? I missed being in the detail of a User Story like I was as a tester, so I went back into testing.

How has the DA helped you in your job role?

The impact of the degree was immediate in my job from the first term. My coding skills accelerated, and my confidence grew rapidly – after a few months, I went from writing a few tests a week to finishing dozens in a sprint, because everything suddenly made sense. I also started looking at testing APIs properly for the first time around when I started the web services module. At the start of term, I was struggling; now, having set up my first API for coursework,



I just understand what I'm navigating and am able to pick everything up so much faster. Further, I think my soft skills have also improved – I'm analysing requirements with a more logical approach than before, which I'm certain means I am catching some bugs sooner.

How do you think you will use the skills and knowledge you have gained in the future?

In the short term, I am concentrating on maintaining my automation testing development by studying more advanced programming concepts to make my tests as concise and efficient as possible. As for the future – who knows! I love working in the NHS and feel like I am already able to do my job better only halfway through the degree. What's great is my original dilemma of wanting both business and technical knowledge is resolving. I know whatever I go on to do in future, I will be able to pick up bigger challenges thanks to everything I am learning, and it's created many more career options for me to consider. I just want to keep making useful things.

International Women's Day

Technocamps' annual International Women's Day Celebration event on Friday 8 March 2024.

International Women's Day is a global day celebrating the economic, political and social achievements of women past, present and future. Annually, thousands of events are held throughout the world to inspire women and celebrate achievements. A global web of rich and diverse local activity connects women from all around the world including political rallies, business conferences, government activities and networking events.

Technocamps' annual International Women's Day gala dinner welcomed over 190 guests to the celebration at Patti Pavilion, Swansea. The evening has become a regular feature on the Welsh social calendar, with guests travelling from all parts of the country to attend.

This year was the 24th anniversary of the event which focuses on Women in STEM. The evening showcased the work being done across Wales to encourage the next generation of women, with talks from Anne Jessopp CBE (CEO, The Royal Mint), Dr Emma Hayhurst (CEO



of Llusern Scientific), Bethan Jenkins (Lecturer in Digital Forensics and Cyber Security at the USW) and Anna Petrusenko (Gower College Student).

To start the evening, Anne Jessopp discussed her experience of being the first woman CEO of the Royal Mint. Dr Emma Hayhurst gave us ten extremely valuable life lessons. Bethan Jenkins opened up about being a Lecturer in Digital Forensics and Cyber Security. Prior to this, she worked as a Forensic Quality Specialist and Digital Forensic Examiner at Gwent Police. Anna Petrusenko passionately shared her incredible story of moving from her hometown in Ukraine to being awarded student of the year 2023 by STEM Cymru, winning international Olympiads and meeting America's President Bill Clinton and Hillary Clinton.

We would like to thank all our incredible partners and speakers for the success of this event and our evening's host Professor Tom Crick.

Watch the talks

tc1.me/iwd-2024



View the gallery

tc1.me/iwd-24



International Women's Day



On set at Swansea University's media suite

Girls in STEM

In March, we hosted our annual Girls in STEM (GiST) event, where we welcomed learners from Birchgrove Comprehensive, Gowerton and Ystalyfera schools to our GiST Media Production workshops. Prior to the workshop, the girls were tasked with researching their Women in STEM inspiration. In the workshop, learners were introduced to the state-of-the-art media suite on campus at Swansea University and were introduced to various equipment and tools used in media production.

The highlight of the workshop was the filming of podcast-style videos, where the girls discussed their Women in STEM inspirations and the challenges they face as women in STEM. These discussions sparked meaningful conversations, shedding light on both the triumphs and obstacles encountered by girls pursuing careers in traditionally male-dominated fields. Following the filming session, the girls returned to Technocamps HQ to learn all about video editing. Here, they learned how to assemble footage, add effects and craft compelling stories.

The workshops sparked enthusiasm among the girls, with discussions turning towards the possibility of starting their



own podcasts in school. This exciting prospect reflects the impact and inspiration generated by the GiST event, fostering a spirit of creativity and empowerment among the girls.

Overall, it was a fantastic day filled with learning, collaboration, and inspiration. As we reflect on the success of the GiST event, we look forward to hearing more about the school podcasts that may emerge from the creativity and enthusiasm sparked during the workshops.

Robotics Competition

A total of 142 learners from 26 schools across Wales joined us for our annual Robotics Competition in partnership with the RAF!

This year's competition theme was Techathlon, and participants were challenged to get into sports mode by designing and creating a robot that could tackle Olympic challenges such as basketball, shot-put and weightlifting.

“ I think it was really fun because it was teaching us a new skill that we don't learn in school. ”

Learner - South East Wales competition

The participants worked collaboratively in groups on their prototypes using any available hardware or kits before designing a poster and a video for their prototypes to be used as part of their pitch to the judges. The groups created display boards, pitched them to a panel of expert judges from Technocamps and the RAF, and answered any follow-up questions. Then, there was a live, unseen challenge, during which learners showcased their adaptability by quickly modifying their robots to complete a new task.



“ Running around the courses and doing the live challenges was really fun and I think the interviews and presentations really helped in building confidence in our robots. ”

Learner - South East Wales competition

A huge thank you to all the fantastic teams that joined us, and congratulations to the winning teams. We've already set the theme for this year's event, Into the Wild, with robots set to tackle conservation challenges and look forward to the innovative ideas and creations learners will bring.

“ It develops the children's independence skills, problem-solving skills, and a love for coding and computing for the future, which is excellent for preparing them for future life and jobs ahead. ”

Practitioner - South West Wales competition





**Watch the
video**

tc1.me/robot-comp-24



Game of Codes

In March our Cardiff hub hosted the Game of Codes coding competition with the 2024 theme centred around Sport and Health. The Game of Codes 2024 competition saw the participation of 3 individual finalists and 13 teams from across South Wales from Ceredigion to Newport. The innovations varied from wearable karate point-scoring t-shirts and Olympic-themed mini-games to clicker games promoting healthy eating and digital top trumps of weird and wonderful sports from around the world. The creativity showcased by all participants was amazing!

The judges commended all participants for their impressive teamwork and coding skills throughout the competition. A fantastic day was had by judges and participants alike and a huge well done to the winning teams:

Best Team – Y Karate Bits (Ysgol Bro Teifi)
Best Individual – Pupil (Ysgol Gyfun Gymraeg Llangynwyd)
Best Teamwork – The Telenbies (Llangewydd Primary)
People's Choice – Olympics 2024 (Rougemont School)



Community Engagement

The year has been very busy with outreach opportunities and Technocamps has been working with a wide range of community engagement groups, from visiting the RAF squadron in Llanelli, the Autism Movement in Mumbles, to the Girls Friendly Society in Dunvant. We have spent time at both the YMCA, and Orbis Education working with many of their different support groups.

Our community enrichment opportunities allow young people to investigate how to code robots to move through mazes and to delve into the world of solving ciphers using cryptography. Through all of the sessions our main goal is to inspire them with STEM sessions outside of the curriculum.



Generative AI workshop at Swansea Central Library

Education, History & Philosophy in Computer Science

The Educational, Historical and Philosophical Foundations of Computer Science (EHP) research group is the research arm of Technocamps which investigates the profound impact that technologies play. From an interdisciplinary lens, we look to explore technical innovation and its impact on society.

Dr Troy Astarte and Professor Faron Moller served as Programme Chairs for UKICER 2024 at the University of Manchester, helping shape the work presented at the top conference for computing education research in the UK. We continued to share our research across education and history, with Dr Olga Petrovska and Dr Megan Venn-Wycherley, publishing research into the use of generative AI in education and charity-university computing outreach programmes. Professor John V Tucker's leadership of the History of Computing Collection has advanced our understanding of computing's evolution and societal impact through publications, outreach activities, and educational initiatives.

Supporting our mission of public engagement, we delivered CTRL + ALT + Critique at the ESRC Festival



CTRL+ ALT + Critique workshop

of Social Science, engaging over 80 young people in critical discussions about artificial intelligence's implications and future development.

Working alongside Technocamps and the Institute of Coding in Wales, we look forward to 2025, where we will continue to build bridges between academia, industry, and the broader community.



UKICER 2024

Theatr na nÓg

Over the past decade, Theatr na nÓg and Technocamps have been working together on a number of original productions aimed at young people. These are created, produced and staged by Theatr na nÓg, and supported by Technocamps with bespoke classroom workshops.

The productions align with the newly-introduced National Curriculum for Wales which places an emphasis on learning and experience relevant to the local environment. The synergy that has been created by this collaboration has resulted in a much-enhanced offering which has received great praise from schools.

“ It was very fun and active. Machine Learning was fun to learn about. Thank you for coming in. ”

Year 4 Learner
Pen Y Fro Primary, Dunvant

This year our Theatr na nÓg school workshops saw many learners across South Wales learning about the life of Merthyr-born boxer Cuthbert Taylor in the production of The Fight. Despite his immense talent, Cuthbert was

“ Very interesting. I liked the way that the content was related to the play, it meant that the children had a good hook! ”

Year 4 Practitioner
Pen Y Fro Primary, Dunvant

unjustly barred from a British title shot due to the colour of his skin—a reminder of the challenges faced in the fight for equality. Following an impressive production once again at Swansea's Dylan Thomas Theatre, learners took part in our workshop exploring the power of training data using micro:bits tying it to the powerful story of The Fight.

“ A really fun activity to do in school and really helped me understand it [computer science] better. ”

Year 6 Learner
Llanrhidian Primary, Llanrhidian

Over 1,200 learners across 17 schools took part in our The Fight workshops in the Autumn term, developing their computational thinking and programming skills while honouring the history of this incredible story.



The Fight, Theatr na nÓg 2024

Achievements

1,200
learners

17
schools





**Watch the
video**

tc1.me/theatr-na-nog





**Funded by
UK Government**

UK Shared Prosperity Fund

This project is funded by the UK Government through the UK Shared Prosperity Fund to provide digital upskilling opportunities to regions across South Wales. This funding has been provided by Swansea, Neath Port Talbot, Blaenau Gwent, Vale of Glamorgan and Powys county councils, and has seen thousands of individuals across these regions take part in our digital training interventions.

This funding has allowed us to provide a digital pathway for individuals regardless of their backgrounds. Through our taster and Essential Skills sessions, Short Courses and our accredited Microcredentials, we have seen learners progress, developing their digital skills and understanding, with some then making the next step onto our Software Engineering Degree Apprenticeship programme.

Our offering has covered topics such as Python programming and Data Analytics, Fundamentals of Cyber Security and Machine Learning, as well as Software Testing and many more.

In addition to our usual impact with schools and practitioners through our workshops and training sessions, this funding focused in local regions has led to more collaboration with local projects to increase our impact within communities. We have worked with young people at INSPIRE Training, the YMCA and delivered sessions to groups at libraries across Swansea and Neath Port Talbot. We have also been holding regular sessions at Volcano Theatre to raise awareness of the latest developments in AI and how to use it responsibly, as well as information on Cyber Security and Online Digital Footprints.

Case Study: Nicola Sillman

Tell us a little about yourself and your work.

Here at INSPIRE Training, our focus is on supporting 16-18-year-olds by preparing them for the world of work through tailored training programmes and practical experiences. Our mission is to equip learners with skills that enhance employability and confidence.

How did you get started working with Technocamps?

We started working with Technocamps when we recognised the growing need for digital and coding skills among young learners. Their innovative workshops and accessible resources

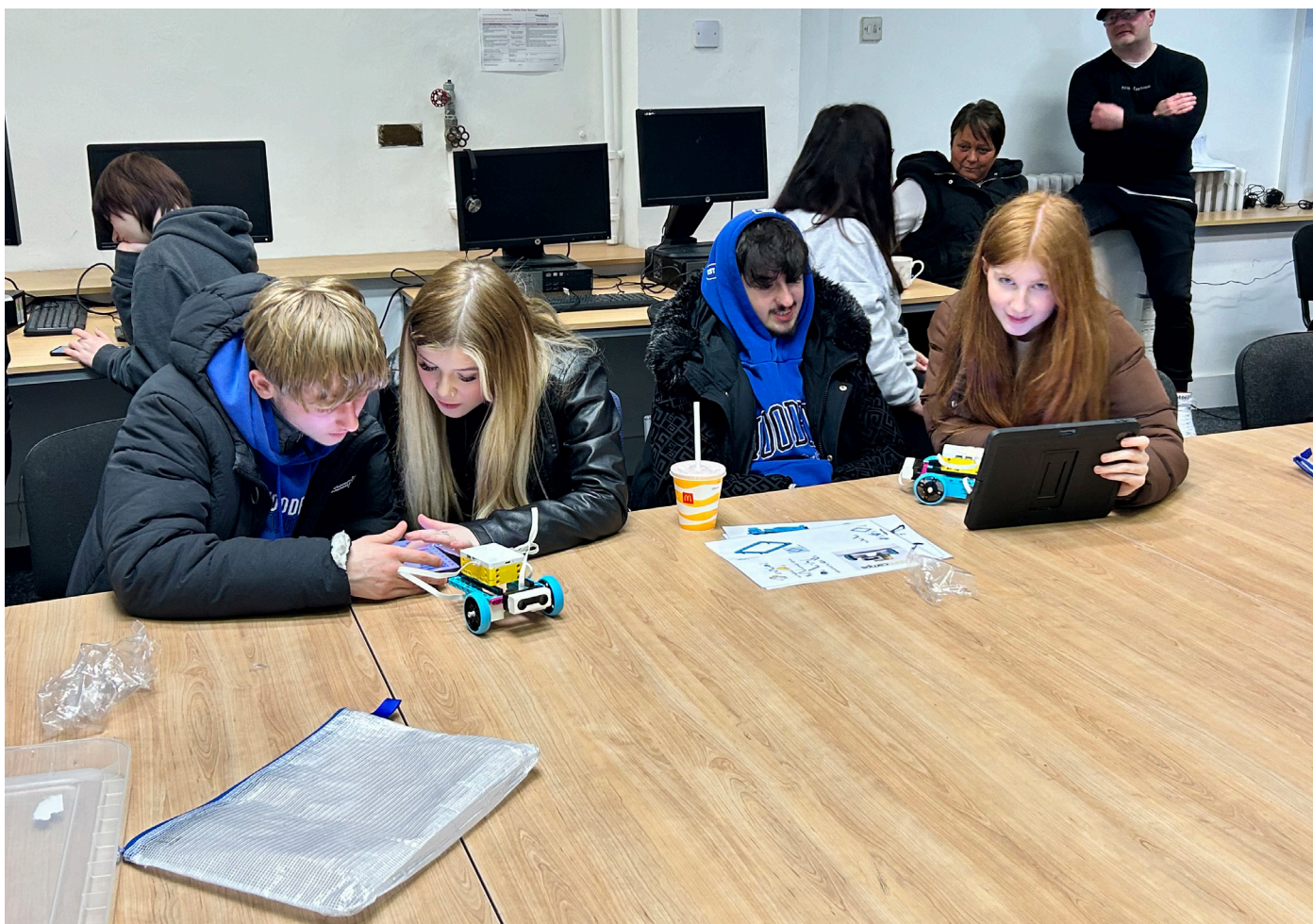
aligned perfectly with INSPIRE Training's goals to integrate technology into our training programmes.

Which part of the work with Technocamps has been most beneficial for you?

The most beneficial part of working with Technocamps has been how interactive their sessions are. These sessions not only engage learners but also provide them with tangible problem-solving and critical-thinking skills. The resources and activities they offer make technical concepts approachable and fun, which has been instrumental in keeping our learners motivated and excited about STEM.

How are the skills and knowledge provided used in your work?

The skills and knowledge gained through Technocamps are directly applicable to modern workplaces, especially in industries where technology and digital systems are central. For our learners, understanding coding basics and computational thinking can open doors to apprenticeships and roles in tech-driven sectors.



Spike Robotics Workshop at Inspire Training

Technocamps Advanced

This summer, we launched our new summer school Technocamps Advanced, for ages 16+, at Technocamps HQ, Swansea University. The programme offered hands-on experiences in cutting-edge fields like Website Building, Machine Learning, 3D Modelling for Art and Industry, and Robotics. It was extremely popular, providing learners with invaluable skills and practical knowledge in these advanced technological areas.

This project is funded by the UK Government through the UK Shared Prosperity Fund.

“ My granddaughter attended your workshop on Website Building today and enjoyed it very much. She said it was very informative, interesting, and challenging while still being fun. She thought it was very professionally organised and delivered and is really looking forward to next week’s module. She made friends with a number of students, many like her, who miss the stimulation of learning during the 6 weeks holidays. ”

- Grandparent of Learner





Funded by
UK Government

Cardiff Met University UKSPF

Throughout 2024 our team at Cardiff Met University have provided exciting workshops for learners young and old! Activities included Microcredential courses, Creative Coding after school clubs and workshops on Digital Survival Skills, Artificial Intelligence, Halloween Mask Making, Christmas Decoration Making with Laser Technology, 3D Printing, Robotic Vehicles and Python Programming. These projects are funded by the UK Government through the UK Shared Prosperity Fund.

Achievements

522

people engaged with
in Blaenau Gwent

246

people engaged with aged
16+ in Neath Port Talbot

425

people engaged with
aged 16+ in Powys

1,189

people engaged with
in the Vale of Glamorgan



Halloween Mask Making workshop using Laser Technology at Llanhamlach Community Hall, Powys

UKSPF Councils



Our Funders



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Prifysgol Cymru
Y Drindod Dewi Sant
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Trinity Saint David



University of
South Wales
Prifysgol
De Cymru



Prifysgol Wrecsam
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Stakeholders

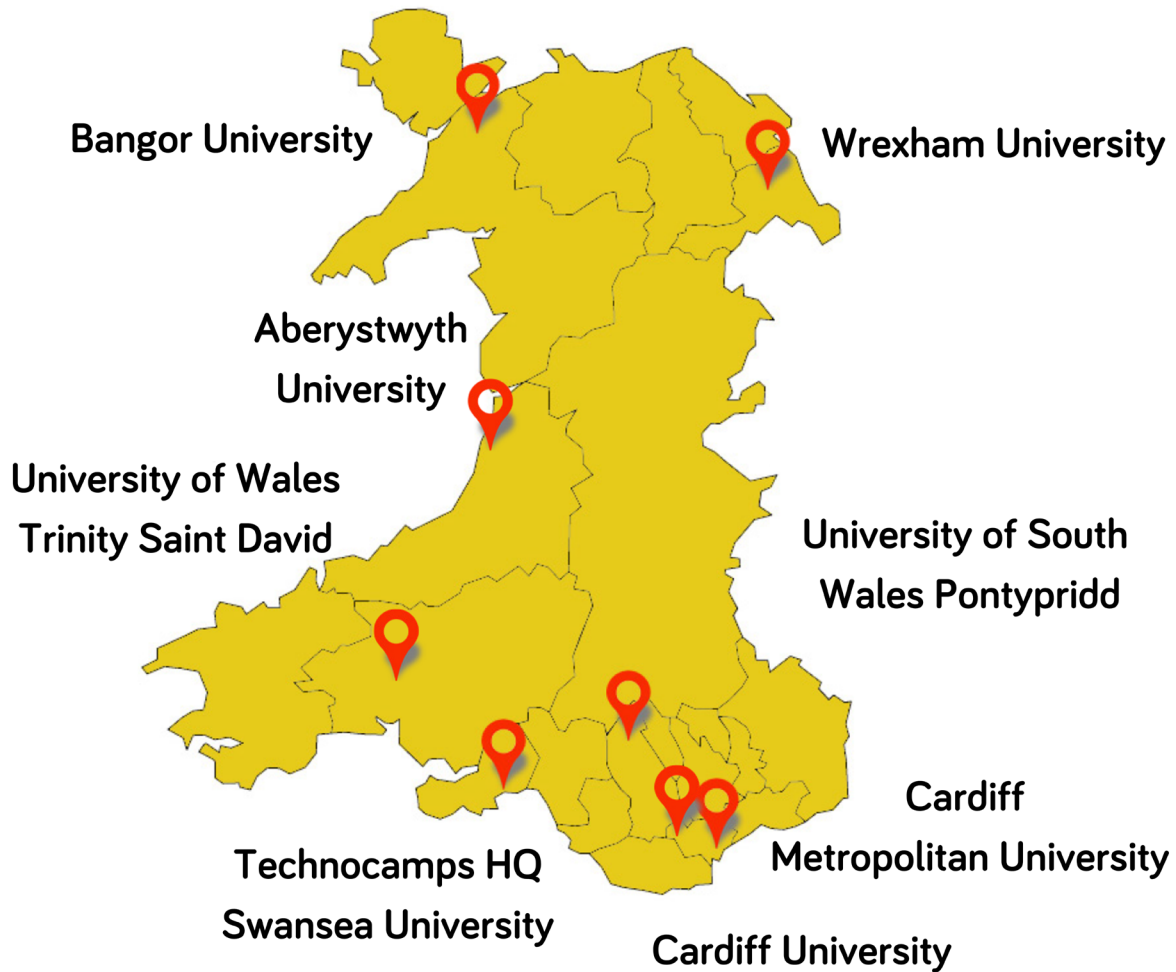
A big thanks to our stakeholders.

All City and County Borough Councils in Wales
Admiral Group
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BBC Wales
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Blue Prism
BT
Companies House
CGI
CyberFirst
Deloitte
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Learned Society of Wales
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Minecraft for Education
National Eisteddfod
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The Guide Association
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Volcano Theatre
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WJEC
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Medr

Y Comisiwn Addysg Drydyddol ac Ymchwil
Commission for Tertiary Education and Research

institute of
CODING
in wales

PRIFYSGOL
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UNIVERSITY



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BANGOR
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Swansea University
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ADRODDIAD BLYNYDDOL 2024



Cyflwyniad

Mae gan yr Adrannau Cyfrifiadureg ym Mhrifysgolion Cymru hanes hir o gydweithio ar weithgareddau allymestyn, gan ddechrau gyda chreu rhaglen ITWales yn 1993. Roedd ITWales yn llwyddiant ysgubol, gydag aelodaeth ei glwb busnes yn cynnwys dros 1,500, a chyfartaledd o 850 o ymwelwyr unigryw bob dydd i'w gylchgrawn busnes ar-lein.

Wrth i'r byd ddod yn fwyfwy digidol, cynyddodd y galw am sgiliau cyfrifiadura. Yn anffodus, ar yr un pryd, lleihaodd apêl astudiaethau cyfrifiadurol mewn ysgolion – ynghyd â'r gallu i'w haddysgu – wrth i gwricwlwm cyfrifiadureg greadigol gael ei ddisodli'n araf gan gwricwlwm TGCh cyffredin. Daeth yn amlwg i ni mai ein cyfraniad mwyaf i fusnesau fyddai sicrhau cyflenwad o dalent, drwy fynd i'r afael â phroblemau addysg cyfrifiadura mewn ysgolion.

Felly fe wnaethom greu Technocamps yn 2003, gan adlewyrchu gweithgareddau yr oeddem wedi'u cychwyn yn gynharach, i hyrwyddo addysg cyfrifiadura mewn ysgolion. Ein nod oedd darparu gweithdai rhyngweithiol a deniadol yn cyflwyno plant ysgol i fyd cyffrous cyfrifiadura nad oeddent yn ei weld yn yr ysgol. Fodd bynnag, roedd



Yr Athro Faron Moller - Cyfarwyddwr Technocamps



Tîm Abertawe yn ein Cystadleuaeth Roboteg Flynyddol

llwyddiant ac effaith uniongyrchol hyn wedi ein grymuso i fynd ymhellach: mynd i'r afael â phroblemau addysg gyfrifiadurol yn ysgolion Cymru – problemau a ddaeth i'w cydnabod yn y pen draw ledled gweddill y DU a thu hwnt. Ar ôl dau ddegawd, mae'r problemau hyn yn parhau, oherwydd esblygiad cyflym technolegau ac offer digidol. Dwy flynedd yn ôl, ymddangosodd ChatGPT, a thrawsnewidiodd AI cynhyrchiol addysg yn gyflym, gan ddod â lluo o gyfleoedd anweledig - a phroblemau - nad oedd athrawon yn barod i fynd i'r afael â nhw heb gymorth.

Er bod Technocamps wedi goddiweddyd ac yn amsugno rhaglen ehangach ITWales, nid yw ymgysylltiad diwydiannol wedi cael ei anghofio. Mae ein rhaglen Sefydliad Codio (IoC) yng Nghymru yn gweld y canolfannau Technocamps ledled Cymru yn mynd i'r afael ag anghenion uwchsgilio digidol busnesau, yn bennaf drwy Brentisiaethau, Microgymwysterau a Dysgu Proffesiynol.

Mae'r adroddiad hwn yn rhoi cipolwg ar y mentrau amrywiol y mae Technocamps wedi bod yn rhan ohonynt drwy gydol 2024. Adlewyrchir – ymhlith llawer eraill – ein hymgysylltiadau ag ysgolion cynradd drwy ein rhaglen Playground Computing; ein hymgysylltiadau ag ysgolion uwchradd; ein mentrau ar gyfer uwchsgilio athrawon drwy ein rhaglen Technoteach; ein gweithgareddau ymgysylltu busnes â'n rhaglen IoC yng Nghymru; a'n mentrau ymchwil o fewn ein cangen ymchwil Addysg, Hanes ac Athroniaeth (EHP). Gyda chynnydd mewn technoleg sy'n galluogi AI, bydd Technocamps mor berthnasol ac angenrheidiol wrth symud ymlaen ag y bu hyd yn hyn.

Cyflawniadau



1,147

gweithdai a
gyflwynwyd



29,410

o ddysgwyr
yn ymgysylltu



269

o ysgolion yn
ymgysylltu



960

ymarferwyr wedi'u
hyfforddi



600

dysgwyr
proffesiynol



83

myfyrwyr
graddbrentisiaeth

technocamps

Playground Computing

Mae Technocamps yn cynnig sesiynau arloesol i ysgolion cynradd ledled Cymru. Drwy gydol 2024, roedd ein rhaglen Playground Computing yn orlawn o weithdai a gweithgareddau hwyliog ac ysbrydoledig. Mae 25,985 o ddysgwyr wedi cymryd rhan o 233 o ysgolion cynradd ledled Cymru mewn 982 o weithdai.

Eleni ein prif arlwy ar gyfer gweithdai cynradd fu ein cefnogaeth barhaus i ymgyrch micro:bit - Cewri Codio'r BBC, sy'n darparu dyfeisiau rhaglenadwy i ysgolion yng Nghymru. Mae ein gweithdai sy'n integreiddio'r rhain ym mhob Maes Dysgu o fewn y Cwricwlwm i Gymru wedi bod yn hynod boblogaidd, gyda dros 215 o weithdai wedi'u cyflwyno i ysgolion cynradd ar ddefnyddio'r dyfeisiau hyn.

Cyflwynwyd 203 o weithdai eraill ar roboteg, gan ganolbwyntio ar ddatblygu sgiliau datrys problemau a rhaglennu ac annog llawer o ddysgwyr ac ysgolion i gymryd rhan yn ein cystadleuaeth roboteg flynyddol. Cyflwynwyd cyfanswm o 92 o bynciau gweithdy gennym yn 2024, gan gynnig amrywiaeth enfawr i ddiwallu anghenion ysgolion a rhanbarthau unigol, yn ogystal â datblygu ystod o sgiliau a dealltwriaeth o'r dysgwyr ledled Cymru.

“Roeddwn i'n meddwl bod y gweithdy yn ddefnyddiol iawn ac mae gen i fwy o ddiddordeb mewn cyfrifiadureg. Cyn heddiw doedd dim awydd gen i am y pwnc. Mwynheais fy sesiwn yn fawr.”

Dysgwr Blwyddyn 6
St Davids RC Primary, West Cross

Playground
computing
technocamps

“Diolch yn fawr iawn! Addasodd Alex [Swyddog Addysgu] y wers yn wych i weddu i anghenion y plant ac roedd yn wych gyda'r dosbarth. Roedd cyflymder y gwersi yn berffaith wrth i'r dosbarth symud ymlaen drwy bob gwers.”

Ymarferydd
St Mary's RC Primary, Llanelli

“Rwy'n meddwl bod y gweithdy yn dda oherwydd rwy'n hoffi gwneud gemau gartref sydd angen llawer o raglennu, felly bydd y gweithdy hwn yn fy helpu i ddysgu.”

Dysgwr Blwyddyn 6
St Mary's RC Primary, Llanelli



A young girl with brown hair, wearing a bright yellow high-visibility vest, is smiling and looking at a laptop screen. The laptop displays a web-based programming interface with colorful blocks. In the foreground, the backs of two other children wearing similar yellow vests are visible. The background shows a classroom with bookshelves filled with books.

Cyflawniadau

25,985

o ddysgwyr

233

o ysgolion cynradd

982

o weithdai

Cyfoethogi STEM

Cyflawniadau

3,425

o ddysgwyr

36

o ysgolion uwchradd

165

o weithdai

Mae ein gwaith gydag ysgolion uwchradd yng Nghymru i gyflwyno ein Rhaglen Cyfoethogi STEM wedi bod mor brysur ag erioed. Mae'r rhaglen yn ymgysylltu â dysgwyr dros y flwyddyn ysgol gyfan, gan gyflwyno ystod o weithgareddau cyfrifiadureg a STEM ehangach gyda'r nod o annog pobl ifanc i ddilyn pynciau STEM ôl-16.

“Gall dysgu sut i godio fy ysgogi i greu gemau da.”

Dysgwr Blwyddyn 7 - St John Lloyd Catholic Comprehensive, Llanelli

Unwaith eto mae ein gweithdai roboteg LEGO wedi parhau i fod y mwyaf poblogaidd gydag ysgolion ac eleni gwelwyd cynnydd yn nifer y gweithdai ar raglennu micro:bit y gofynnwyd amdanynt. Gyda chymaint o ysgolion cynradd ledled Cymru yn defnyddio'r dyfeisiau hyn diolch i ymgyrch micro:bit - Cewri Codio'r BBC, mae ysgolion uwchradd yn defnyddio'r ddyfais hon fel ffordd o gyflwyno cysyniadau raglennu yn yr ysgol uwchradd isaf. Yn ogystal â'r pynciau caledwedd, mae ein

“Mae'r byd yn dod yn fwy dibynnol ar dechnoleg. Roedd yn hwyl dysgu am wefannau ac roedden nhw [y darparwyr] yn neis iawn ac yn barod i helpu.”

Dysgwr Blwyddyn 11
Ysgol Penglais, Aberystwyth

gweithdai sy'n cefnogi pynciau TGAU Cyfrifiadureg ar Raglennu Python, Greenfoot ac Algebra Boole hefyd wedi bod yn amhrisiadwy i ddysgwyr ac ymarferwyr fel ei gilydd.

Rydym yn cynnig gweithdai trawsgwricwlaidd ar ystod eang o bynciau gan gynnwys Ecosystemau Scratch, Dysgu Peirianyddol, Dyluniad Roded, a Chelf Python. Rydym yn parhau i gynorthwyo ysgolion gyda'r TGAU Technoleg Ddigidol, gyda gweithdai ar Animeiddio, Datblygiad Gwe a Gemau. Yn ystod y flwyddyn, fe wnaethom ymgysylltu â 3,425 o ddysgwyr mewn 36 o ysgolion uwchradd gyda 165 o weithdai.



Dysgwyr o Ysgol Greenhill yn Ninbych-y-pysgod yn datrys ein pos cryptograffeg



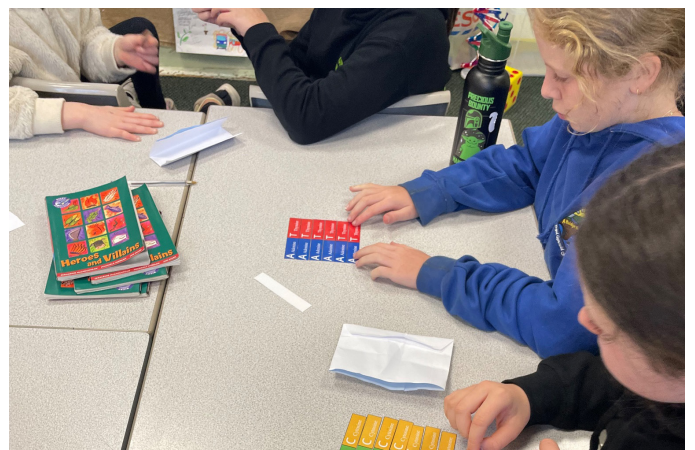
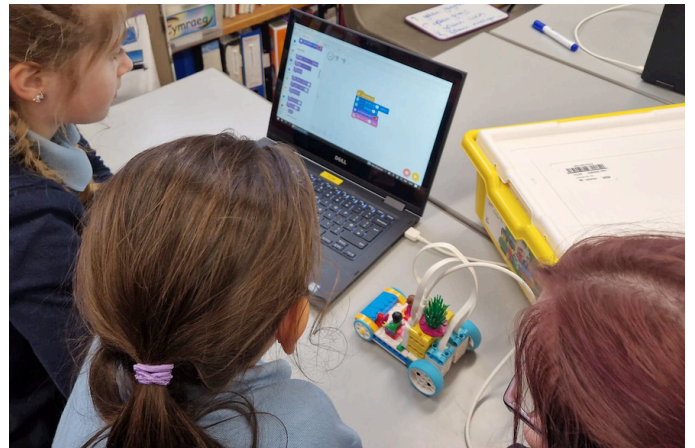
Gweithdy haf Technocamps Advanced

Clybiau Codio

Mae ein hymrwymiad i ddarparu'r sgiliau sydd eu hangen ar blant i'w datblygu yn parhau, ac rydym bellach yn cynnig clybiau codio rhithwir a phersonol ar ôl ysgol i blant 9-16 oed. Mae ein clybiau codio yn gyfle i bobl ifanc gael profiad cyfrifiadura yn ystod sesiynau byw, rhyngweithiol y tu allan i'r ysgol.

Mae'r clwb yn darparu sesiwn wythnosol am ddim lle mae dysgwyr yn datblygu sgiliau cyfrifiadureg newydd, wrth gwblhau gweithgareddau hwyliog a difyr. Mae pobl ifanc o bob gallu yn mynychu'r clybiau ac nid oes angen unrhyw wybodaeth na phrofiad blaenorol mewn codio neu raglennu arnynt i ymuno.

Mae'r clwb yn garreg gamu i'r rhai sydd wedi mynychu ein gweithdai mewn ysgolion, gan ganiatáu iddynt barhau i adeiladu eu sgiliau ar eu cyflymder eu hunain ac mewn amgylchedd dysgu llai ffurfiol. Mae hefyd yn addas ar gyfer dechreuwyr llwyr gan fod y sesiynau wedi'u cynllunio'n fwriadol i ddarparu ar gyfer dysgwyr o bob lefel.



Eisteddfod

Roedd yn bleser gennym ddychwelyd i'r Maes ar gyfer Eisteddfod yr Urdd ym Maldwyn eleni. Roedd ein gweithgareddau y tro hwn yn canolbwyntio ar ennyn diddordeb meddyliau ifanc â heriau ymarferol a oedd yn cyfuno technoleg a chreadigrwydd. Cafodd ymwelwyr y cyfle i brofi eu sgiliau ar gêm drydanol llaw-gyson wedi'i rhaglennu gyda micro:bit, mynd i'r afael â heriau blychau torri codau, a hyd yn oed sgwrsio â robot sy'n cael ei bweru gan AI—i gyd trwy gyfrwng y Gymraeg! Roedd yn wych gweld plant (a'u rhieni!) o bob rhan o Gymru yn archwilio'r gweithgareddau hyn, yn datrys posau, ac yn profi croestoriad technoleg a diwylliant Cymreig. I'n tîm, roedd nid yn unig yn gyfle i rannu ein hangerdd dros arloesi ond hefyd i ymgolli yn awyrgylch bywiog yr Eisteddfod, dathlu cyfoeth yr iaith Gymraeg, a rhoi cynnig ar ychydig o Gymraeg ein hunain.

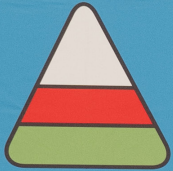
“ Mae bob amser yn bleser gweld cymaint o bobl ifanc yn ymgysylltu â gwyddoniaeth a thechnoleg, ac i hwyluso'r syndod a'r cyffro hwnnw mewn ffordd hwyliog a rhyngweithiol! Rwyf wrth fy modd yn ymweld â'r GwyddonLe bob blwyddyn i allu ysbrydoli cenhedlaeth nesaf y gymuned STEM trwy gyfrwng y Gymraeg! Mae gweld chwilfrydedd a sgwrsio ag ymwelwyr o bob cwr o Gymru a thu hwnt bob amser yn bleser, ac rydym yn falch o fod yn rhan o Eisteddfod yr Urdd! ”

Daniel North

Swyddog Addysgu Technocamps



Ein bythol boblogaidd Robot Datrys Rubik's Cube a robotiaid pêl-droed



Urdd



Gwyddole



Prifysgol Abertawe
Swansea University

Gŵyl Wyddoniaeth Abertawe

Daeth hanner tymor mis Hydref i ben gyda phenwythnos gwych arall yng Ngŵyl Wyddoniaeth Abertawe, digwyddiad sydd bob tro yn ysbrydoli a diddanu teuluoedd. Daeth miloedd i mewn i fwynhau dau ddiwrnod yn llawn arddangosfeydd ymarferol, arbrofion rhyngweithiol, a gweithdai diddorol.

Roedd yn anrhydedd unwaith eto i Technocamps fod yn rhan o'r ŵyl anhygoel hon sy'n canolbwyntio ar y teulu. Rhannodd teuluoedd faint o argraff cafodd arnynt, gyda llawer yn chwervthin bod eu plant wedi "mynnu" stopio a dangos eu nwyddau o ymyriadau blaenorol gan Technocamps. Roedd ein gweithgaredd golff mini Sphero yn ffefryn, gydag ymwelwyr o bob oed yn ceisio llywio drysfa tra bu eraill yn gweithio'n galed yn datrys ein posau cryptograffeg i dorri'r codau ar gyfer y blychau gwobrau!

Roedd ein bwrdd rheilffordd yn hynod boblogaidd, gyda phlant yn archwilio nodweddion diogelwch ein system atal gwrthdrawiadau. Roedd y gweithgaredd ymarferol hwn yn caniatáu iddynt weithredu trenau model, yn rhydd o ofid damweiniau, wrth roi cipolwg i oedolion ar gymwysiadau ymarferol ein hymchwyl ar gyfer systemau cludiant mwy diogel a doethach.

Dychwelwyd y stondin hanes Cyfrifiadura gyda'i holl nostalgia eleni, gan gyflwyno pedwar peiriant eiconig o Gasgliad Hanes Cyfrifiadura Prifysgol Abertawe. Ymhlith y peiriannau roedd dau BBC Micro, Dragon 32, ac iMac G3 clasurol o 1999 - pob un yn cynnig ffenestr wahanol



i esblygiad cyfrifiadura personol. Roedd y BBC Micros yn arbennig o boblogaidd gydag oedolion a oedd wedi eu defnyddio yn ystod eu dyddiau ysgol yn yr 1980au. Roedd llawer o fynychwyr wedi synnu o ddarganfod bod yr holl gyfrifiaduron a arddangoswyd, gan gynnwys yr iMac, wedi'u cynhyrchu yn Ne Cymru, gan ychwanegu cysylltiad lleol annisgwyl i'r arddangosyn.

Gyda dros 4,800 yn bresennol drwy gydol y penwythnos, roedd yn frainc cael rhannu ein hangerdd am dechnoleg gyda chymaint o feddyliau chwillfrydig.

“Roedd yn wych gweld cymaint o ddysgwyr yn adnabod ein stondin ac yn dod â'u teuluoedd draw i gymryd rhan yn y gweithgareddau!”

Paige Jennings
Swyddog Cyfathrebu Technocamps



Lansiad BBC micro:bit - Abertawe

Cyrsiau DP

Gydag ysgolion yn ei chael yn fwyfwy heriol rhyddhau ymarferwyr ar gyfer hyfforddiant hirdymor, rydym wedi addasu cynnwys ein cwrs cyfrifiadura i athrawon 18 diwrnod a'i ddarparu mewn fformat hybrid. Mae'r fformat newydd hwn yn gweld ymarferwyr yn mynychu 12 diwrnod llawn o hyfforddiant yn bersonol, gyda gweddill y cynnwys yn cael ei ddarparu ar-lein trwy sesiynau tywysedig wedi'u recordio ymlaen llaw. Mae unedau'r cwrs wedi'u cynllunio i wella eu sgiliau rhaglennu, gan fynd i'r afael â chamsyniadau y gallai eu dysgwyr ddod ar eu traws a pha adnoddau a gweithgareddau i'w defnyddio i fynd i'r afael â'r rhain.

Mae gennym 11 o ymarferwyr ar hyn o bryd wedi'u cofrestru gyda'r Gwasanaeth Cyflawni Addysg sy'n

“Hyfforddiant gwyh, byddai'n magu hyder wrth roi cynnig arni.”

Ymarferydd
Tre Uchaf Primary, Casllwchr

darparu cymorth ariannol i'r ysgolion i sybsideiddio cost cyflenwi.

“Trosolwg gwyh o micro:bits ac mae wedi rhoi brwdfrydedd mawr i mi i ddysgu mwy am godio”

Ymarferydd - Danygraig Primary School, Port Tennant

Ar gyfer ymarferwyr cynradd, parhaom i gynnig ein rhaglen Dysgu Proffesiynol Cynradd ar-lein. Cyftwynwyd y sesiynau dwy awr wythnosol hyn ar ôl oriau ysgol, gan alluogi ymarferwyr cynradd i ddatblygu eu sgiliau meddylfryd cyfrifiadurol a rhaglennu yn unol â llinyn perthnasol y Fframwaith Cymhwysedd Digidol.

Yn ogystal â'n cyrsiau, rydym wedi cynnal llawer o ddigwyddiadau DP drwy gydol y flwyddyn, gyda micro:bit, Minecraft Education a Scratch yn boblogaidd iawn. Gwelwyd 960 o ymarferwyr yn mynychu ein sesiynau.

technoteach

Cyflawniadau

960

ymarferwyr wedi'u hyfforddi

4,200

awr o uwchsgilio digidol



Pytch

Llynedd, cydweithiodd Technocamps â staff o Brifysgol y Drindod Dulyn ar y prosiect Pytch. Mae eu ap gwe newydd, a ddyluniwyd i helpu dysgwyr i ysgrifennu eu rhaglenni eu hunain, yn anelu at wneud codio Python yn hygyrch i ddysgwyr o bob lefel trwy ddarparu offer ac adnoddau rhyngweithiol. Mae Pytch yn defnyddio gwybodaeth flaenorol y dysgwyr o ieithoedd rhaglenni sy'n seiliedig ar blociau fel Scratch i roi dechrau da iddynt wrth raglennu ieithoedd mwy datblygedig sy'n seiliedig ar destun fel Python. Mae'r fersiwn ddiweddaraf o'r ap ar gael ar-lein trwy Pytch.org, gan gynnig profiadau tywysedig, gan alluogi defnyddwyr i lywio drwy'r broses o ddatblygu gemau cam wrth gam.

Datblygwyd Pytch mewn cydweithrediad, gyda mwy na 300 o ddysgwyr a 30 o addysgwyr, a'i addasu i ddiwallu anghenion dysgwyr ac addysgwyr. Mae gweithgareddau dosbarth wedi'u datblygu'n ofalus, gyda sylwadau gan ddefnyddwyr yn cyfrannu at lunio'r rhaglen. Treialwyd y

nodweddion newydd gyda dysgwyr o TU Dublin ac mae'r adborth a dderbyniwyd yn hynod gadarnhaol. Fel rhan o'r cydweithrediad, ymwelom â Dulyn i gyflwyno ein dull o allymestyn yng Nghymru a sut rydym yn cefnogi ysgolion ledled y wlad gyda sgiliau digidol. Roedd hyn hefyd yn gyfle i ddysgu am waith allymestyn STEM yn lwerddon gyda chymunedau gwledig.

“ Mae cael offeryn pontio mor arloesol sy'n gallu manteisio ar wybodaeth flaenorol ein dysgwyr yn hynod effeithiol wrth ddysgu sgiliau newydd, mae Pytch yn wych am hyn. ”

Dr Lee Clift

Cymrawd Addysgu Technocamps

Cyflwynodd Technocamps yr offeryn Pytch i addysgwyr uwchradd yng nghynhadledd addysg flynyddol, gyda Glenn Strong o TU Dublin yn mynychu ar gyfer sesiwn cwestiynau ac atebion ac i dderbyn adborth gan ymarferwyr yng Nghymru i lywio datblygiad yr offeryn pellach.



Tim Pytch a Technocamps

Micro:bit Live x Hwb

Yn parhau â'n partneriaeth gyda Hwb, roeddem wedi cynllunio cynnal mwy o sesiynau ar-lein yn dilyn digwyddiad lansio Hwb Presents micro:bit The Next Gen. Partnerodd Technocamps â micro:bit Foundation ddiwedd 2023 i ddod yn brif ddarparwr cynnwys micro:bit yng Nghymru. Ym mis Chwefror, gwnaethom gynnal 3 digwyddiad lansio ar ran ac mewn cydweithrediad â'r micro:bit Foundation, lle cafodd 175 o ymarferwyr sesiwn ymarferol ar sut i ddefnyddio'r micro:bits ar draws Meysydd Dysgu'r Cwricwlwm i Gymru.

Roedd digwyddiad lansio Hwb Yn Cyflwyno wedi'i anelu at ymarferwyr fel sesiwn DP fer i ysbrydoli hyder ac annog iddynt ddefnyddio eu micro:bit newydd yn y dosbarth (erbyn y lansiad yn 2023, cynhwyswyd 97% o ysgolion yng Nghymru yn y cynllun i dderbyn eu set dosbarth o ddyfeisiau

micro:bit). Yn dilyn y digwyddiad hwn a thrafodaethau gyda Hwb, newidiom ni ein dull i ganolbwyntio ar gyflwyno sesiynau Dysgu Byw. Caniatodd hwn i ysgolion ledled Cymru gofrestru ac ymuno â'r sesiynau ar-lein yn fyw, gan ein galluogi i gael effaith uniongyrchol ar y dysgwyr. Mae hefyd yn annog cydweithredu gan y dysgwyr wrth iddynt gael mynediad i'r sgwrs a gallant ofyn/ateb cwestiynau, gan ei wneud yn llawer mwy ymgysylltiol na fideo wedi'i recordio ymlaen llaw.

Roedd y ddwy sesiwn a gyflwynwyd hyd yma yn gysylltiedig â Noson y Nadolig a Noson y Tân Gwylt. Ar gyfer y sesiynau hyn, archwiliwyd sut i ddefnyddio'r swyddogaethau cofnodi data newydd ar y micro:bit (roedd hyn yn rhan fawr o lansiad Cewri Codio) a daeth y dysgwyr i ddeall cysyniadau rhaglennu newydd wrth integreiddio cofnodi data i'w prosiectau. Roedd y ddau brosiect yn system canfod sŵn ar gyfer Noson Tân Gwylt i osgoi'r sŵn uchel, a dyfais canfod Siôn Corn i geisio darganfod pa amser y gosododd Siôn Corn ein hanrhegion (gyda'r lefel canfod yn fwriadol yn isel i gadw'r teimlad hudolus!).

Cyflawniadau

175

ymarferwyr mynychodd
lansiad micro:bit

97%

ysgolion Cymru cofrestrodd
ar gyfer micro:bits

1,040

dysgwyr mynychodd
gwersi dysgu byw

43

ysgolion ymunodd â
gwersi dysgu byw



Dysgwyr yn rhaglennu micro:bit



technocamps

Hwb®

Cynhadledd Addysg

Cynhaliwyd y Gynhadledd Addysg llynedd yn Stadiwm Swansea.com, gan ddod â dros 50 o addysgwyr o ysgolion cynradd ac uwchradd ynghyd. Cynigiodd y digwyddiad amrywiaeth o gyfleoedd i addysgwyr gymryd rhan mewn gweithdai ymarferol a chael mewnwelediad gwerthfawr i wella eu dulliau addysgu yn unol â Chwricwlwm i Gymru.

“Syniadau defnyddiol iawn i fynd yn ôl i'r ysgol a'u rhannu gydag aelodau eraill o staff. Cyfle i ddefnyddio offer a phrofi pethau dysgom ni.”

Primary School Practitioner

Dechreuodd y diwrnod gyda chyflwyniad ysbrydoledig ar gyfer addysgwyr ysgolion uwchradd gan Rachel Roberts o Gowerton Comprehensive School, a rannodd ei phrofiad o dyfu cyfrifiadureg trwy gydweithio, datblygu sgiliau digidol, ac ymgysylltu â Technocamps. Dilynwyd hyn gan sesiynau ymarferol a oedd yn canolbwyntio ar drosglwyddo o Scratch i Python gan ddefnyddio Pyth, arfogi addysgwyr â sgiliau codio hanfodol, a darganfod ffyrdd o integreiddio dyfeisiau micro:bit i wahanol bynciau i wneud dysgu yn fwy deinameg a deniadol.

Ar gyfer addysgwyr ysgolion cynradd, cynigiodd y diwrnod brofiad bywiog a rhyngweithiol trwy weithdai seiliedig ar symud a oedd yn ymgorffori dawns gyda gwersi rhaglennu data gan ddefnyddio micro:bits, gan ddarparu ffordd hwyliog a deniadol i gyflwyno meddylfryd cyfrifiadurol



Gwyliwch y fideo

tc1.me/edu-conference



a sgiliau datrys problemau. Yn ogystal, archwiliodd addysgwyr sut y gallai gweithgareddau di-blwg gefnogi camau cynnydd y cwricwlwm newydd, gan helpu myfyrwyr i ddatblygu sgiliau digidol allweddol heb fod angen cyfrifiaduron.

Ymunodd timau o CyberFirst, CAS, Hwb, EESW STEM Cymru, Sefydliad Codio Cymru, EHP, Theatr na nÔg, a phartneriaid eraill â ni hefyd, a fu'n arddangos eu mentrau diweddaraf ar cyfleoedd sydd ar gael i ysgolion. Bu'r digwyddiad yn llwyddiant mawr, ac edrychwn ymlaen at groesawu addysgwyr yn ôl y flwyddyn nesaf.

technoteach



Case Study: Rachel Roberts

Dywedwch ychydig wrthym amdano chi'ch hun.

Fy enw i yw Rachel Roberts, ac rwyf wedi bod yn gweithio yn Gowerton Comprehensive School ers naw mlynedd. Fi yw Cydlynnydd y Fframwaith Cymhwysedd Digidol (FfCD) ac rwy'n addysgu Cyfrifiadureg ar draws Cyfnodau Allweddol 3, 4, a 5. Un o fy nodau personol allweddol yw cynyddu'r nifer sy'n astudio Cyfrifiadureg ar lefel TGAU a Safon Uwch, gyda ffocws penodol ar annog mwy o ferched i ymgysylltu â'r pwnc. Rwy'n angerddol am hyrwyddo amrywiaeth mewn STEM a chreu amgylchedd cynhwysol sy'n ysbrydoli pob dysgwr i archwilio'r posibilïadau cyffrous o fewn Cyfrifiadureg.

Sut wnaethoch chi ddechrau gweithio gyda Technocamps?

Dechreuais ymgysylltu â Technocamps pan oeddwn angen cymorth gyda chodio'r robotiaid LEGO Spike. Cyflwynon nhw sesiwn ar gyfer fy nghlwb codio, gan gyflwyno technegau codio sylfaenol, a fwynhaodd y dysgwyr yn fawr ac a oedd yn hynod fuddiol. Sefydlodd y profiad cychwynnol hwn gysylltiad, ac ers hynny, mae Technocamps wedi darparu cefnogaeth aruthrol trwy weithdai, teithiau, digwyddiadau, a chystadlaethau sydd wedi cyfoethogi profiadau dysgu'r dysgwyr yn fawr. Mae eu ffocws ar annog menywod i mewn i STEM yn atseinio'n arbennig gyda mi. Rydw i wedi bod yn awyddus i gynnwys fy nysgwyr yn eu gweithdai ysbrydoledig gyda'r nod o hyrwyddo amrywiaeth mewn STEM. Y tu hwnt i'r dysgwyr, mae arweinwyr digidol fy ysgolion clwstwr a minnau hefyd wedi croesawu mentrau Technocamps, gan fynychu eu digwyddiad Diwrnod

Rhyngwladol y Merched yn flynyddol. Mae wedi dod yn draddodiad yr ydym yn edrych ymlaen ato, yn dathlu ac yn eiriol dros fwy o gynwysoldeb ym meysydd STEM.

Pa ran o'r gwaith gyda Technocamps sydd wedi bod fwyaf buddiol i chi?

Yr agwedd fwyaf buddiol o weithio gyda Technocamps fu datblygu gweithgareddau codio hwyliog a deniadol gyda'r dysgwyr. Mae'r gweithgareddau hyn wedi chwarae rhan arwyddocaol wrth annog mwy o ddysgwyr i ddewis Cyfrifiadureg ar lefel TGAU, sy'n ffocws allweddol i mi. Mae'r gefnogaeth gan Technocamps wedi agor cyfleoedd anhygoel i'm dysgwyr, gan gynnwys y cyflwyniad i gynllun CyberFirst. Mae hwn eisoes wedi cael effaith enfawr, gyda dysgwyr chweched dosbarth yn gwneud cais am fwsariau ac yn cael mynediad i arweinwyr sector sy'n rhannu eu profiadau yn ystod ymweliadau ysgol.

Yn ogystal, rwy'n gwerthfawrogi'n fawr y sesiynau hyfforddi a datblygu a ddarperir gan Technocamps. Mae'r sesiynau hyn wedi fy arfogi gyda syniadau gwych, yn ogystal â meddalwedd, gwefannau ac offer newydd y gallaf integreiddio i'r ystafell ddosbarth, gan wella yn y pen draw profiadau fy nysgwyr. Mae eu cefnogaeth wir wedi bod yn drawsnewidiol ar gyfer fy addysgu a'r cyfleoedd sydd ar gael i'm nysgwyr.

Sut mae'r sgiliau a'r wybodaeth a ddarperir gan Technocamps yn cael eu defnyddio yn eich gwaith?

Mae'r sgiliau a'r wybodaeth a ddarperir gan Technocamps yn rhan



annatod o fy ngwaith o ddydd i ddydd fel athro Cyfrifiadureg a Chydlynnydd FfCD. Mae eu hadnoddau a'u gweithdai wedi cyfoethogi fy ngallu i gyflwyno gwersi difyr, yn enwedig mewn codio a gweithgareddau cysylltiedig â STEM. Er enghraifft, rwy'n ymgorffori'r technegau codio hwyliog ac ymarferol a gyflwynwyd ganddynt i'm dysgwyr yn rheolaidd, sydd wedi gwneud rhaglennu'n fwy hygyrch a phlesurus, gan ysbrydoli mwy o ddiddordeb yn y pwnc. Mewn sesiynau diweddar, rydym wedi dysgu am wefan newydd o'r enw Pytch a oedd yn wych. Rydym wedi bod yn cael trafferth gyda'r broses o symud o godio bloc i Python a dyma'r cyfnod pontio perffaith, felly rydym yn edrych i integreiddio hyn i'n cwricwlwm yn fuan.

Hoffech ychwanegu unrhyw beth arall?

Ni allaf ddiolch digon i Technocamps am fy nghyflwyno i gymaint o gyfleoedd i'r dysgwyr. Hebddynt, gwna fyddwn wedi gallu cael cymaint o ddiddordeb yn y pwnc hwn ag sydd gennym, heb wario llawer o arian ac amser. Diolch.

Sefydliad Codio yng Nghymru

Y Sefydliad Codio yng Nghymru yw cangen fusnes Technocamps, sy'n gweithio gydag unigolion 16 oed a hŷn. Mae ein rhaglenni, gan gynnwys Cyrsiau Byr, Bwtcamps Sgiliau (Microgymwysterau), a Phrentisiaethau Gradd, wedi'u cynllunio i ddatblygu sgiliau technoleg a gwella cyfleoedd gyrfa.

Prentisiaeth Gradd

Mae ein rhaglen Prentisiaeth Gradd yn cyfuno dysgu academiaidd traddodiadol mewn amgylchedd prifysgol â phrosiectau seiliedig ar waith sy'n caniatáu i ddysgwyr gymhwyso eu gwybodaeth academiaidd newydd i'w rolau yn eu cwmnïau. Mae'r rhaglen arloesol hon, sydd wedi'i hariannu'n llawn, yn galluogi'r myfyrwyr i 'ennill a dysgu' - i aros mewn cyflogaeth amser llawn wrth ennill gradd BSc (Anrh) sy'n rhoi eu dysgu academiaidd yn eu hamgylchedd gweithle yn ei gyd-destun. Mae'r cyrsiau'n cael eu hariannu'n llawn, gyda chymorth y Sefydliad Codio yng Nghymru a Llywodraeth Cymru drwy MEDR (Comisiwn Addysg Drydyddol ac Ymchwil).

Yn 2024 recriwtiom 32 o brentisiaid i ymuno â'n rhaglen Prentisiaeth Gradd. Roeddem yn hapus i weld ein bod

wedi gallu sicrhau 12 o fusnesau a sefydliadau newydd ledled De Cymru a oedd am uwchsgilio eu staff drwy ein rhaglen, yn ogystal â chael llawer o gyflogwyr yn dychwelyd i ganiatáu i staff pellach ddechrau ar eu taith addysgol gyda ni. Mae gennym fyfyrwyr o ystod eang o gyflogwyr gan gynnwys Admiral, CGI, NHS, Adran Busnes a Masnach, yn ogystal â llawer o fusnesau bach a chanolig, gan gynnwys microfusnesau.

Gwelsom hefyd 14 o fyfyrwyr yn dathlu eu graddio ym mis Rhagfyr ar ôl cwblhau eu hastudiaethau ym mis Gorffennaf. Ar hyn o bryd mae gan y rhaglen tair blynedd 69 o fyfyrwyr yn cael eu hyfforddi.



Swansea University
Prifysgol Abertawe

institute of
CODING
in wales **technocamps**

Cyflawniadau

69

wedi cofrestru

32

recriwtiaid newydd

14

graddedigion 2024



Graddedigion Prentisiaeth Gradd 2024

Astudiaeth Achos: Jake Laycock

Dywedwch ychydig wrthym amdano chi a'ch gwaith.

Rwy'n Beiriannydd Meddalwedd yn CGI yn Ne Cymru. Ymunais â chwrs DA Abertawe trwy CGI yn syth ar ôl gorffen fy Lefel A. Mae gen i angerdd am ddatrys problemau a mynd i'r afael â heriau, sydd wrth wraidd yr hyn rwy'n ei wneud fel Peiriannydd Meddalwedd. Mae fy ngwaith yn canolbwyntio ar y sector bancio a marchnadoedd ariannol, lle rwy'n cyfrannu at brosiectau amrywiol sy'n ymwneud â datblygu pen blaen a phen ôl.

Sut clywsoch chi am y rhaglen Prentisiaeth Gradd ac ymgysylltu â hi?

Ymgeisiais i sawl cynllun prentisiaeth gradd ar draws y DU a des i ar draws rhaglen Abertawe wrth wneud cais am rôl yn CGI. Ar ôl ymchwilio i'r cwrs, gwnaeth yr amrywiaeth o bynciau, yn enwedig o gymharu â rhaglenni eraill, argraff arnaf. Un o'r manteision allweddol oedd gallu cymhwyso'r cysyniadau a ddysgwyd yn y brifysgol yn uniongyrchol i'm gwaith, gan wneud y cynnwys yn berthnasol ac yn benodol i yrfa peirianeg meddalwedd.

Uchafbwynt arall oedd bod yn rhan o grŵp gyda chymysgedd mor amrywiol o bobl. Er ein bod ni i gyd yn rhannu cefndir technoleg, daeth pawb â phrofiadau gwahanol, gyda rhai wedi cael dros 30 mlynedd yn y diwydiant ac eraill, fel fi, newydd ddechrau. Creodd y cymysgedd hwn o safbwyntiau awyrgylch gwych ar gyfer dysgu a rhannu syniadau, ac roedd yn wych bod yn rhan o grŵp mor gyflawn.

Sut wnaethoch chi ddechrau ymwneud â chyfrifiaduron a

beth wnaeth eich ysbyrdoli i ddilyn y llwybr hwn?

Rydw i wastad wedi bod yn chwilfrydig am sut mae cyfrifiaduron yn gweithio ac wedi mwynhau datrys problemau gyda nhw, felly roedd symud i raglennu yn teimlo fel cam naturiol.

Dechreuodd fy nhaith i godio yn yr ysgol uwchradd yn ystod fy TGAU, lle roeddwn yn ddigon ffodus i ddilyn cwrs Cyfrifiadureg. Hwn oedd fy amlygiad gwirioneddol cyntaf i raglennu (gan ddefnyddio Python). Roeddwn i wrth fy modd â'r creadigrwydd a'r rhyddid sydd ynghlwm wrth ysgrifennu fy nghod fy hun, a dyna pryd roeddwn i'n gwybod fy mod i eisiau bod yn beiriannydd meddalwedd.

Roedd fy athro cyfrifiadureg ar gyfer Lefel A yn argymhell edrych ar brentisiaethau gradd, ac roedd y syniad yn apelgar i mi. Gwelais werth cael profiad yn y byd go iawn yn y diwydiant ochr yn ochr â'm hastudiaethau, ac roeddwn i'n gwybod y byddai prentisiaeth gradd yn cynnig y gorau o'r ddau fyd, gan fy ngosod ar gyfer llwyddiant yn y maes, ar ddechrau fy ngyrfa.

Sut mae'r Prentisiaeth Gradd wedi eich helpu?

Mae rheoli amser yn sefyll allan fel sgil allweddol rydw i wedi'i ddatblygu. Yn gynnar yn y cwrs, roedd yn rhaid i mi ddysgu sut i gydbwysu gwaith, prifysgol, ac ymrwymadau personol yn effeithiol, a oedd yn her gan ei fod yn llawer mwy heriol na chwrs prifysgol arferol. Roedd y cwrs yn cwrdd â ystod eang o bynciau, o bryderon moesegol ysgrifennu cod i ddiogelwch rhwydwaith, a helpodd i ehangu fy ngwybodaeth a gwella fy hyblygrwydd yn y gwaith.



Mae cymhwyso'r hyn a ddysgais wedi gwneud gwahaniaeth amlwg yn fy effeithiolrwydd fel peiriannydd meddalwedd.

Un profiad nodedig oedd y prosiect traethawd hir, lle bu'n rhaid i mi ddylunio a datblygu cymhwysiad cymhleth yn annibynnol. Fe wnaeth y broses honno fy ngwthio i ddod yn beiriannydd meddalwedd mwy galluog, hyderus a hunangynhaliol. Datblygodd hyn fy ngyrfa yn uniongyrchol, gan fynd â mi o Brentis Gradd i Beiriannydd Meddalwedd. Fyddwn i ddim lle rydw i heddiw heb y sgiliau a'r profiadau a enillwyd.

Sut ydych chi'n meddwl y byddwch chi'n defnyddio'r sgiliau a'r wybodaeth rydych chi wedi'u hennill yn y dyfodol?

Mae'r sgiliau rydw i wedi'u hennill yn hynod ymarferol a hyblyg, sy'n golygu y byddan nhw'n parhau'n werthfawr ni waeth pa fath o brosiect rydw i'n gweithio arno yn y dyfodol. Mae'r sgiliau yn drosglwyddadwy ar draws gwahanol ieithoedd, fframweithiau a diwydiannau. Wrth edrych ymlaen, gwn y bydd hyn yn caniatáu i mi ymgymryd â rolau mwy cymhleth ac amrywiol mewn peirianeg meddalwedd.



Wedi ei ariannu gan
Llywodraeth y DU

Cyrsiau Byrion a Bwtcamps Sgiliau

Mae ein Cyrsiau Byrion a'n Bwtcamps Sgiliau (Microgymwysterau) yn darparu llwybrau hygyrch sy'n cefnogi datblygiad proffesiynol ar bob lefel, gan roi'r sgiliau angenrheidiol i ddysgwyr i ffynnu yn yr economi ddigidol sy'n datblygu.

Yn 2024, fe wnaethom gyflwyno 14 Cwrs Byr a 7 Bwtcamp Sgiliau i bron i 600 o ddysgwyr! Cynhwyswyd amrywiaeth o bynciau megis Rhaglennu Python, Dysgu Peiriannau, AI Generative, Seiberddiogelwch, Excel a Rheoli Prosiectau.

Ariennir y prosiect hwn yn rhannol gan Lywodraeth y DU drwy Gronfa Ffyniant Gyffredin y DU.



“Roedd yn gwrs defnyddiol iawn fel dechreuwr mewn codio, esboniwyd pob agwedd yn dda a pherfformiwyd yr addysgu ar gyflymder delfrydol i allu cadw i fyny ond heb fod yn anheriol.”

Microgymhwyster Cyflwyniad i Rhaglennu Python



Swansea University
Prifysgol Abertawe

institute of
CODING
in wales technocamps



Gweithdy Cyflwyniad i AI yn Llyfrgell Ganolog Abertawe

Astudiaeth Achos: Victoria Goodall

Dywedwch ychydig wrthym amdano chi a'ch gwaith.

Rwy'n Brawf-Ddadansoddwraig yn Iechyd a Gofal Digidol Cymru (DHCW). Ar hyn o bryd rwy'n gweithio ar System Imiwneiddio Cymru, sy'n rheoli gweinyddiaeth Covid-19 a brechiadau ffluiw yng Nghymru, felly mae'n waith gwerth chweil iawn. Yn fwy diweddar, rydw i wedi bod yn gweithio ar awtomeiddio ein profion, sydd wedi cynnwys codio yn fy swydd am y tro cyntaf. Fy hoff beth am brofi yw'r teimlad o adael rhywbeth mewn lle gwell nag oedd hi, a dyna sy'n fy ysgogi pan mewngofnodaf bob dydd.

Sut clywsoch chi am y rhaglen Prentisiaeth Gradd ac ymgysylltu â hi?

Postiodd rhywun yn yr ystafell staff ar-lein hysbyseb ar gyfer y cyrsiau Microgymhwyster Technocamps, a chofrestrais ar gyfer y dosbarth Meddylfryd Cyfrifiadurol. Roedd y cwrs ei hun yn ddiddorol gan nad oeddwn erioed wedi astudio rhesymeg o'r blaen, ond yr hyn a'm synnodd yn fawr oedd cymaint roeddwn i'n mwynhau bod yn ôl mewn amgylchedd dysgu. Un noson ar y campws ar ôl prawf, roeddwn yn sgwrsio ag Olga a dywedodd wrthyf am y rhaglen radd. Gofynnais am ragor o wybodaeth a'i rhannu gyda fy rheolwr, a oedd yn galonogol iawn wrth i ni drafod y syniad o astudio am dair blynedd. Mae DHCW yn wych am gefnogi gweithwyr sydd eisiau dilyn rhaglenni prentisiaeth gradd - dywedwyd wrthyf yn gyflym y byddai'n iawn i mi wneud cais, ac maent wedi darparu ar gyfer fy absenoldeb astudio bob wythnos ers hynny.

Sut wnaethoch chi ddechrau ymwneud â chyfrifiaduron a beth wnaeth eich ysbrydoli i ddilyn y llwybr hwn?

Roeddwn bob amser yn defnyddio cyfrifiaduron a chonsolau gêm gartref ond nid oedd gennyf ddiddordeb ynddo o bell fel gyrfa. Gwnes yn dda yn yr ysgol, ond nid mathemateg a gwyddoniaeth oedd fy niddordebau, ac ni wnaethom astudio Cyfrifiadureg. Ar ôl graddio gyda gradd yn y dyniaethau yn 2015, fy swydd gyntaf oedd profi ond symudais wedyn i rôl fusnes, a esblygodd i reoli cynnyrch, gan fod hwn yn ddilyniant gyrfa mwy naturiol i rywun nad oedd yn dod o gefndir technegol. Er oeddwn i'n wrth fy modd â'r swydd, dros amser roeddwn i'n teimlo bod rhywbeth ar goll. Roeddwn wedi ennill profiad busnes gwerthfawr, ond roeddwn yn ymwybodol iawn o fy mwltch sgiliau technegol. Oedd yna ffordd i mi gael y ddau? Roeddwn i'n gweld eisiau bod ym manylion Stori Defnyddiwr fel roeddwn i fel profwr, felly es i'n ôl i brofi.

Sut mae'r Prentisiaeth Gradd wedi eich helpu yn eich swydd?

Roedd effaith y radd yn syth yn fy swydd o'r tymor cyntaf. Cyflymodd fy sgiliau codio, a thyfodd fy hyder yn gyflym - ar ôl ychydig fisoedd, es i o ysgrifennu ychydig o brofion yr wythnos i orffen dwsinau mewn sbrint, oherwydd roedd popeth yn sydyn yn gwneud synnwyr. Dechreuais hefyd edrych ar brofi APIs yn iawn am y tro cyntaf pan ddechreuais y modiwl gwasanaethau gwe. Ar ddechrau'r tymor, roeddwn i'n cael trafferth; nawr, ar ôl sefydlu fy API cyntaf ar gyfer gwaith cwrs,



dwi'n deall yr hyn rydw i'n ei lywio ac rydw i'n gallu codi popeth cymaint yn gyflymach. Ymhellach, rwy'n meddwl bod fy sgiliau meddal wedi gwella hefyd - rwy'n dadansoddi gofynion gyda dull mwy rhesymegol nag o'r blaen, ac rwy'n sicr yn golygu fy mod yn dal rhai gwallau yn gynt.

Sut ydych chi'n meddwl y byddwch chi'n defnyddio'r sgiliau a'r wybodaeth rydych chi wedi'u hennill yn y dyfodol?

Yn y tymor byr, rwy'n canolbwyntio ar gynnal fy natblygiad profi awtomeiddio trwy astudio cysyniadau rhaglennu mwy datblygedig i wneud fy mhroffion mor gryno ac effeithlon â phosibl. O ran y dyfodol - pwy a wŷr! Rwyf wrth fy modd yn gweithio yn y GIG ac yn teimlo fy mod eisoes yn gallu gwneud fy swydd yn well dim ond hanner ffordd trwy'r radd. Rwy'n gwybod beth bynnag yr af ymlaen i'w wneud yn y dyfodol, y byddaf yn gallu wynebu heriau mwy diolch i bopeth rwy'n ei ddysgu, ac mae wedi creu llawer mwy o opsiynau gyrfa i mi eu hystyried.

Diwrnod Rhyngwladol y Merched

Digwyddiad Dathlu Diwrnod Rhyngwladol y Merched blynyddol Technocamps dydd Gwener 8 Mawrth 2024.

Mae Diwrnod Rhyngwladol y Merched yn ddiwrnod bydeang sy'n dathlu llwyddiannau economaidd, gwleidyddol a chymdeithasol menywod yn y gorffennol, y presennol a'r dyfodol. Mae gwe fyd-eang o weithgarwch lleol cyfoethog ac amrywiol yn cysylltu menywod o bob rhan o'r byd gan gynnwys raliau gwleidyddol, cynadleddau busnes, gweithgareddau'r llywodraeth a digwyddiadau rhwydweithio.

Croesawodd cinio gala Diwrnod Rhyngwladol y Merched Technocamps dros 190 o westeion i'r dathliad ym Mhafliwn Patti, Abertawe. Mae'r noson wedi dod yn nodwedd reolaidd ar galendr cymdeithasol Cymru, gyda gwesteion yn teithio o bob rhan o'r wlad i fynyachu.

Eleni oedd pen-blwydd yn 24 oed y digwyddiad sy'n canolbwyntio ar Fenywod mewn STEM. Roedd y noson yn arddangos y gwaith sy'n cael ei wneud ledled Cymru i annog y genhedlaeth nesaf o fenywod, gyda sgwrsiau gan Anne Jessopp CBE (Prif Swyddog Gweithredol, Y Bathdy Brenhinol), Dr Emma Hayhurst (Prif Swyddog Gweithredol Llusern Scientific), Bethan Jenkins (Darlithydd Fforensig Digidol a Seiberddiogelwch ym Mhrifysgol De Cymru) ac Anna Petrusenko (Myfyriwr Coleg Gŵyr).



I ddechrau'r noson, bu Anne Jessopp yn trafod ei phrofiad o fod yn Brif Swyddog Gweithredol benywaidd cyntaf y Bathdy Brenhinol. Rhoddodd Dr Emma Hayhurst ddeg gwers bywyd hynod werthfawr i ni. Soniodd Beth Jenkins am fod yn Ddarlithydd Fforensig Digidol a Seiberddiogelwch. Cyn hyn, bu'n gweithio fel Arbenigwr Ansawdd Fforensig ac Archwiliwr Fforensig Digidol yn Heddlu Gwent. Rhannodd Anna Petrusenko ei stori anhygoel am symud o'i thref enedigol yn yr Wcráin i dderbyn gwobr Myfyriwr y flwyddyn 2023 gan STEM Cymru.

Hoffem ddiolch i'n holl bartneriaid a siaradwyr anhygoel am lwyddiant y digwyddiad hwn ac i westeiwr ein noson yr Athro Tom Crick.

**Gwylwch y
cyflwyniadau**

tc1.me/iwd-2024



**Chwiliwch yr
oriel**

tc1.me/iwd-24



International Women's Day



Ar set yng nghyfleusterau cyfryngau Prifysgol Abertawe

Merched mewn STEM

GiST
Cymru

Ym mis Mawrth, fe wnaethom gynnal ein digwyddiad Merched mewn STEM (GiST) blynyddol, lle croesawyd dysgwyr o Ysgolion Cyfun Birchgrove, Gowerton ac Ystalyfera i'n gweithdai Cynhyrchu Cyfryngau GiST. Cyn y gweithdy, cafodd y merched y dasg o ymchwilio i'w hysbrydoliaeth Menywod mewn STEM. Yn y gweithdy, cyflwynwyd dysgwyr i'r ystafell gyfryngau o'r radd flaenaf ar gampws Prifysgol Abertawe a chawsant eu cyflwyno i wahanol gyfarpar ac offer a ddefnyddir wrth gynhyrchu cyfryngau.

Uchafbwynt y gweithdy oedd fflmio fideos arddull podlediad, lle bu'r merched yn trafod eu hysbrydoliaeth Menywod mewn STEM a'r heriau y maent yn eu hwynebu fel menywod mewn STEM. Sbardunodd y trafodaethau hyn sgysiau ystyrlon, gan daflu goleuni ar y buddugoliaethau a'r rhwystrau a wynebwyd gan ferched yn dilyn gyrfaedd mewn meysydd a ddominyddir yn draddodiadol gan ddynion. Yn dilyn y sesiwn fflmio, dychwelodd y merched i Bencadlys Technocamps i ddysgu popeth am olygu fideo. Yma, dysgon nhw sut i gydysod fflm, ychwanegu effeithiau a chreu straeon cymhellol.



Sbardunodd y gweithdai frwdfrydedd ymhlith y merched, gyda thrafodaethau yn troi at y posibilrwydd o gychwyn eu podlediadau eu hunain yn yr ysgol. Mae'r rhagolwg cyffrous hwn yn adlewyrchu'r effaith a'r ysbrydoliaeth a gynhyrchwyd gan ddigwyddiad GiST, gan feithrin ysbryd o greadigrwydd a grymuso ymhlith y merched.

Ar y cyfan, roedd yn ddiwrnod gwych yn llawn dysgu, cydweithio ac ysbrydoliaeth. Amlygodd sut mae sgiliau digidol yn effeithio ar wahanol lwybrau gyrfa gan gynnwys y cyfryngau a dylunio creadigol.

Cystadleuaeth Roboteg

Ymunodd cyfanswm o 142 o ddysgwyr o 26 o ysgolion ledled Cymru â ni ar gyfer ein Cystadleuaeth Roboteg Flynyddol mewn partneriaeth â'r RAF!

Thema'r gystadleuaeth eleni oedd Techathlon, a heriwyd cyfranogwyr i fynd i fyd chwaraeon drwy ddylunio a chreu robot a allai fynd i'r afael â heriau Olympaidd fel pêl-fasged, taflu pwysau a chodi pwysau.

“Roedd yn hwyl iawn oherwydd roedd yn dysgu sgil newydd i ni nad ydym yn dysgu yn yr ysgol.”

Dysgwr - Cystadleuaeth De Ddwyrain Cymru

Cydweithiwyd mewn grwpiau ar eu prototeipiau gan ddefnyddio unrhyw galedwedd neu gitau oedd ar gael cyn dylunio poster a fideo ar gyfer eu prototeipiau i'w defnyddio fel rhan o'u cyflwyniad i'r beirniaid. Creodd y grwpiau fyrdau arddangos, eu cyflwyno i banel o feirniaid arbenigol o Technocamps a'r RAF, ac ateb unrhyw gwestiynau dilynol. Yna, cafwyd her fyw, heb ei weld, pan ddangosodd y cyfranogwyr eu gallu i addasu trwy addasu eu robotiaid yn gyflym i gwblhau tasg newydd.



“Roedd archwilio'r matiau a gwneud yr heriau byw yn llawer o hwyl ac roedd y cyfweiliadau a'r cyflwyniadau wedi helpu i fagu hyder yn ein robotiaid.”

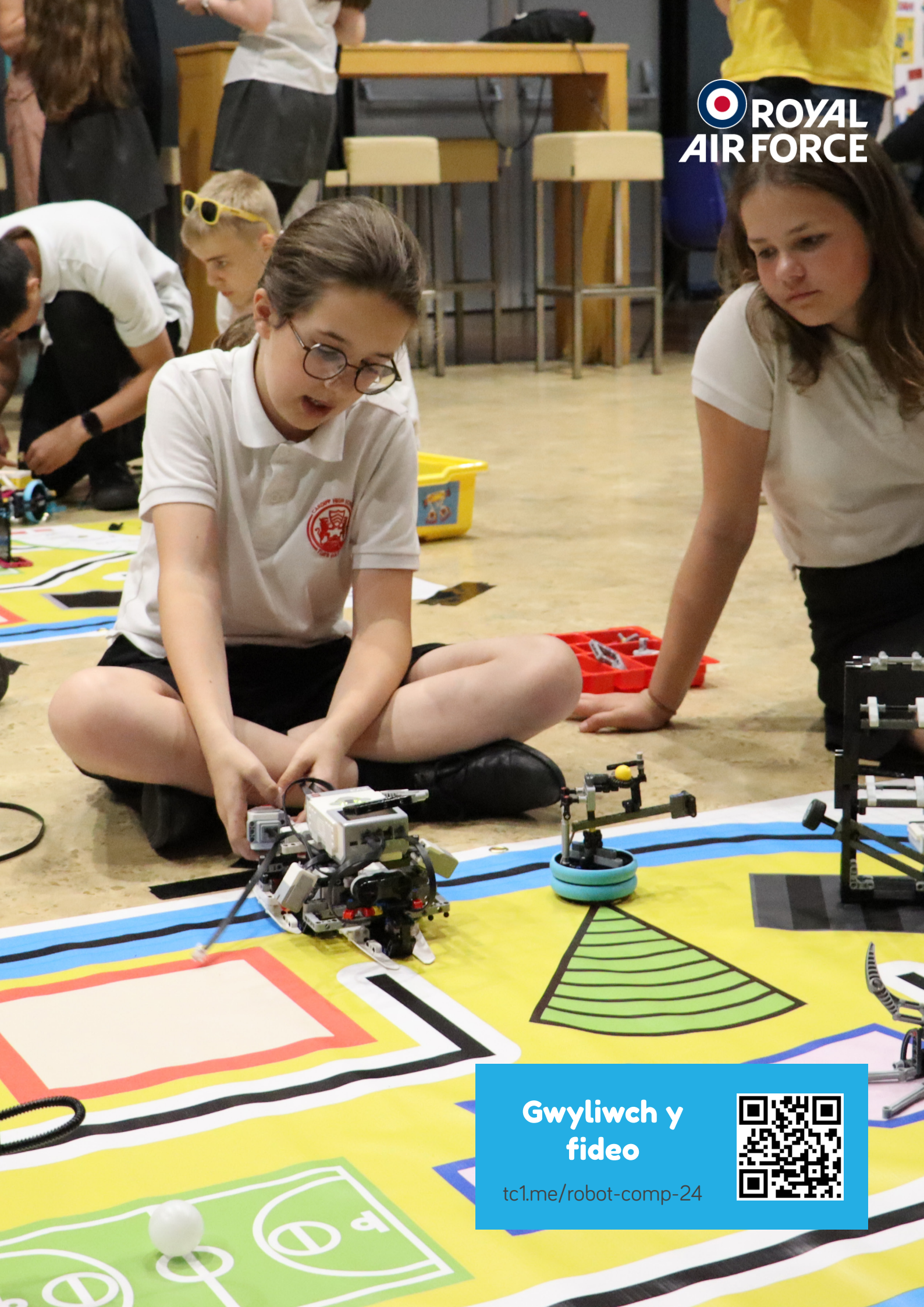
Dysgwr - Cystadleuaeth De Ddwyrain Cymru



Diolch enfawr i'r holl dimau gwych a ymunodd â ni, a llongyfarchiadau i'r timau buddugol. Rydym eisoes wedi gosod y thema ar gyfer digwyddiad eleni, Into the Wild, gyda robotiaid yn barod i fynd i'r afael â heriau cadwraeth ac yn edrych ymlaen at fwy o greadigaethau arloesol.

“Mae'n datblygu sgiliau annibyniaeth y plant, sgiliau datrys problemau, a chariad at godio a chyfrifiadura ar gyfer y dyfodol, sy'n wych ar gyfer eu paratoi ar gyfer bywyd yn y dyfodol a'r swyddi sydd o'u blaenau.”

Ymarferydd - Cystadleuaeth De Ddwyrain Cymru



**Gwylwch y
fideo**

tc1.me/robot-comp-24



Game of Codes

Ym mis Mawrth llynedd, cynhaliodd ein canolfan yng Nghaerdydd gystadleuaeth codio Game of Codes gyda thema 2024 yn canolbwyntio ar Chwaraeon ac Iechyd. Yn y gystadleuaeth gwelwyd 3 enillydd unigol a 13 tîm o bob cwr o Dde Cymru, o Geredigion i Gasnewydd. Roedd y datblygiadau arloesol yn amrywio o grysau-t karate clyfar a gemau mini ar thema Olympaidd i gemau cliciwr yn hyrwyddo bwyta'n iach a Top Trumps digidol o chwaraeon rhyfedd a rhyfeddol o bob rhan o'r byd, roedd y creadigrwydd a ddangoswyd yn anhygoel!

Canmolodd y beirniaid yr holl gyfranogwyr am eu sgiliau gwaith tîm a chodio trawiadol trwy gydol y gystadleuaeth. Cafwyd diwrnod gwych gan feirniaid a chyfranogwyr fel ei gilydd a llongyfarchiadau enfawr i'r timau buddugol:

Tîm gorau – Y Karate Bits (Ysgol Bro Teifi)
Unigolyn gorau – Dysgwr (Ysgol Gyfun Llangynwyd)
Gwaith tîm gorau – The Telenbies (Llangewydd Primary)
Dewis y Pobl – Olympics 2024 (Rougemont School)



Allymestyn Cymunedol

Roedd 2024 yn brysur iawn gyda chyfleoedd allymestyn ac mae Technocamps wedi bod yn gweithio gydag ystod eang o grwpiau ymgysylltu cymunedol, o ymweld â sgwadron yr Awyrlu yn Llanelli, y Mudiad Awtistiaeth yn y Mwmbwls, i'r Girls Friendly Society yn Ddyfnant. Rydym wedi treulio amser yn yr YMCA, ac Orbis Education yn gweithio gyda llawer o'u gwahanol grwpiau cymorth.

Mae ein cyfleoedd cyfoethogi cymunedol yn galluogi pobl ifanc i ymchwilio i sut i godio robotiaid i symud trwy ddrysfeydd ac i dreiddio i fyd datrys seiffrau gan ddefnyddio cryptograffeg. Trwy'r holl sesiynau ein prif nod yw eu hysbrydoli gyda sesiynau STEM y tu allan i'r cwricwlwm.



Gweithdy AI cynhyrchiol yn Llyfrgell Ganolog Abertawe

Addysg, Hanes ac Athroniaeth mewn Cyfrifiadureg

Mae'r grŵp ymchwil Sylfeini Addysgol, Hanesyddol ac Athronyddol Cyfrifiadureg (EHP) yn ymchwilio i'r effaith ddofn y mae technolegau'n ei chwarae. O lens rhyngddisgyblaethol, rydym yn edrych i archwilio arloesedd technegol a'i effaith ar gymdeithas.

Eleni, gwasanaethodd Dr Troy Astarte a'r Athro Faron Moller fel Cadeiryddion Rhaglen UKICER 2024 ym Mhrifysgol Manceinion, gan helpu i lunio'r gwaith a gyflwynwyd yn y gynhadledd orau ar gyfer ymchwil addysg gyfrifiadurol yn y DU. Fe wnaethom barhau i rannu ein hymchwil ar draws addysg a hanes, gyda Dr Olga Petrovska a Dr Megan Venn-Wyherley, gan gyhoeddi ymchwil i'r defnydd o AI cynhyrchiol mewn addysg a rhaglenni allymestyn cyfrifiadura elusennol-prifysgol. Mae arweinyddiaeth yr Athro John V. Tucker ar y Casgliad Hanes Cyfrifiadura wedi gwella ein dealltwriaeth o esblygiad cyfrifiadura ac effaith gymdeithasol trwy gyhoeddiadau, gweithgareddau allgymorth, a mentrau addysgol.

Gan gefnogi ein cenhadaeth o ymgysylltu â'r cyhoedd, bu i ni gyflwyno CTRL + ALT + Critique yng Ngŵyl Gwyddor



Gweithdy CTRL+ ALT + Critique

Gymdeithasol yr ESRC, gan gynnwys dros 80 o bobl ifanc mewn trafodaethau beirniadol am oblygiadau deallusrwydd artifisial a datblygiad y dyfodol.

Gan weithio ochr yn ochr â Technocamps a'r Sefydliad Codio yng Nghymru, edrychwn ymlaen at 2025, lle byddwn yn parhau i adeiladu pontydd rhwng y byd academiaidd, diwydiant, a'r gymuned ehangach.



UKICER 2024

Theatr na nŌg

Dros y ddegawd ddiwethaf, mae Theatr na nŌg a Technocamps wedi bod yn cydweithio ar nifer o gynyrchiadau gwreiddiol sydd wedi'u hanelu at bobl ifanc. Mae'r rhain yn cael eu creu, eu cynhyrchu a'u llwyfannu gan Theatr na nŌg, a'u cefnogi gan Technocamps gyda gweithdai dosbarth pwrpasol.

Mae'r cynyrchiadau yn cyd-fynd â Chwricwlwm Cenedlaethol Cymru sydd newydd ei gyflwyno sy'n rhoi pwyslais ar ddysgu a phrofiad sy'n berthnasol i'r amgylchedd lleol. Mae'r synergedd a grëwyd gan y cydweithio hwn wedi arwain at arlwy llawer gwell sydd wedi cael canmoliaeth fawr gan ysgolion.

“Roedd yn hwyl ac yn weithgar ac roedd Dysgu Peirianyddol yn hwyl i'w ddysgu am. Diolch am ddod i mewn.”

Dysgwr Blwyddyn 4
Pen Y Fro Primary, Dyfnant

Llynedd gwelodd ein gweithdai ysgol Theatr na nŌg lawer o ddysgwyr ar draws De Cymru yn dysgu am fywyd y paffiwr Cuthbert Taylor o Ferthyr yn y cynhyrchiad The Fight.

“Diddorol iawn. Roeddwn i'n hoffi'r ffordd roedd y cynnwys yn perthyn i'r ddrama, roedd yn golygu bod gan y plant fachyn da!”

Ymarferydd Blwyddyn 4
Pen Y Fro Primary, Dyfnant

Er gwaethaf ei dalent aruthrol, cafodd Cuthbert ei wahardd yn anghyfiawn o ennill teitl Prydeinig oherwydd y lliw o'i groen — atgof o'r heriau a wynebwyd yn y frwydr dros gydraddoldeb. Yn dilyn cynhyrchiad trawiadol unwaith eto yn Theatr Dylan Thomas Abertawe, cymerodd dysgwyr yn rhan yn ein gweithdy yn archwilio pŵer hyfforddi data gan ddefnyddio micro:bits gan ei glymu i stori bwerus The Fight.

“Gweithgaredd hwyliog iawn i'w wneud yn yr ysgol a helpodd fi i'w ddeall [cyfrifiadureg] yn well.”

Dysgwr Blwyddyn 6
Llanrhidian Primary, Llanrhidian

Cymerodd dros 1,200 o ddysgwyr ar draws 17 o ysgolion ran yn ein gweithdai The Fight yn ystod yr hydref, gan ddatblygu eu sgiliau meddylfryd cyfrifiadurol a rhaglennu.



The Fight, Theatr na nŌg 2024

Cyflawniadau

1,200

o ddysgwyr

17

o ysgolion

N theatr
na nŌg



**Gwyliwch y
fideo**

tc1.me/theatr-na-nog





Wedi ei ariannu gan
Llywodraeth y DU

Cronfa Ffyniant Gyffredin y DU

Ariennir y prosiect hwn gan Lywodraeth y DU drwy Cronfa Ffyniant Gyffredin y DU i ddarparu cyfleoedd uwchsgilio digidol i ranbarthau ar draws De Cymru. Darparwyd y cyllid hwn gan gynghorau sir Abertawe, Castell-nedd Port Talbot, Blaenau Gwent, Bro Morgannwg a Phowys, ac mae wedi gweld miloedd o unigolion ar draws y rhanbarthau hyn yn cymryd rhan yn ein hymyriadau hyfforddiant digidol.

Mae'r cyllid hwn wedi ein galluogi i ddarparu llwybr digidol i unigolion waeth beth fo'u cefndir. Trwy ein sesiynau cyflwyniadol a sgiliau hanfodol, ein cyrsiau byrion a'n Microgymwysterau achrededig, rydym wedi gweld dysgwyr yn datblygu eu sgiliau digidol a'u dealltwriaeth, gyda rhai wedyn yn cymryd y cam nesaf i'n rhaglen Prentisiaeth Gradd Peirianeg Meddalwedd. Mae ein harlwy wedi

ymdrin â phynciau fel rhaglennu Python a Dadansoddeg Data, Hanfodion Seiberddiogelwch a Dysgu Peirianyddol, yn ogystal â Phrofi Meddalwedd.

Yn ogystal â'n heffaith arferol gydag ysgolion ac ymarferwyr trwy ein gweithdai a'n sesiynau hyfforddi, mae'r cyllid hwn sydd wedi'i ganolbwyntio mewn rhanbarthau wedi arwain at fwy o gydweithio â phrosiectau lleol i gynyddu ein heffaith o fewn cymunedau. Rydym wedi gweithio gyda phobl ifanc yn INSPIRE Training, yr YMCA ac wedi cyflwyno sesiynau i grwpiau mewn llyfrgelloedd ar draws Abertawe a Chastell-nedd Port Talbot. Rydym hefyd wedi bod yn cynnal sesiynau rheolaidd yn Theatr Volcano i godi ymwybyddiaeth o'r datblygiadau diweddaraf mewn AI a sut i'w ddefnyddio'n gyfrifol, yn ogystal â gwybodaeth am seiberddiogelwch ac olion traed digidol ar-lein.

Astudiaeth Achos: Nicola Sillman

Dywedwch ychydig wrthym amdanoch chi a'ch gwaith.

Yma yn INSPIRE Training, rydym yn canolbwyntio ar gefnogi pobl ifanc 16-18 oed drwy eu paratoi ar gyfer byd gwaith trwy raglenni hyfforddi wedi'u teilwra a phrofiadau ymarferol. Ein cenhadaeth yw arfogi dysgwyr â sgiliau sy'n gwella cyflogadwyedd a hyder.

Sut wnaethoch chi ddechrau gweithio gyda Technocamps?

Dechreuon ni weithio gyda Technocamps pan wnaethon ni gydnabod yr angen cynyddol am sgiliau digidol a chodio ymhlith dysgwyr ifanc. Roedd eu gweithdai arloesol a'u

hadnoddau hygyrch yn cyd-fynd yn berffaith â nodau INSPIRE Training i integreiddio technoleg yn ein rhaglenni hyfforddi.

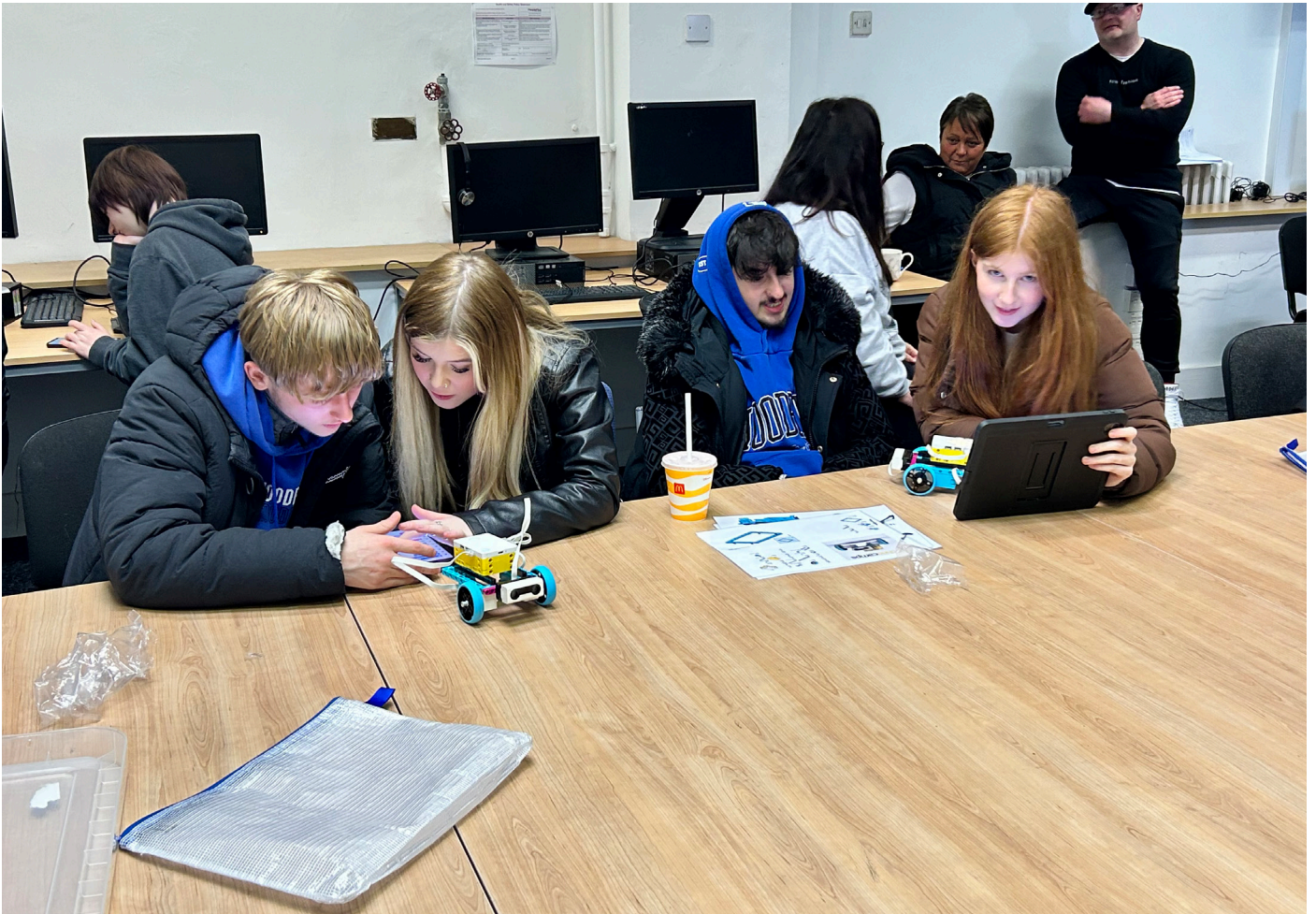
Pa ran o'r gwaith gyda Technocamps sydd wedi bod fwyaf buddiol i chi?

Y rhan fwyaf buddiol o weithio gyda Technocamps fu pa mor rhyngweithiol yw eu sesiynau. Mae'r sesiynau hyn nid yn unig yn ennyn diddordeb dysgwyr ond hefyd yn rhoi medrau datrys problemau diriaethol a meddwl beirniadol iddynt. Mae'r adnoddau a'r gweithgareddau y maent yn eu cynnig yn gwneud cysyniadau technegol yn hawdd mynd atynt ac yn hwyl, sydd

wedi bod yn allweddol i gadw ein dysgwyr yn llawn cymhelliant ac yn gyffrous am STEM.

Sut mae'r sgiliau a'r wybodaeth a ddarperir yn cael eu defnyddio yn eich gwaith?

Mae'r sgiliau a'r wybodaeth a enillir trwy Technocamps yn uniongyrchol berthnasol i weithleoedd modern, yn enwedig mewn diwydiannau lle mae technoleg a systemau digidol yn ganolog. I'n dysgwyr, gall deall hanfodion codio a meddylfryd cyfrifiadurol agor drysau i brentisiaethau a rolau mewn sectorau a yrrir gan dechnoleg.



Gweithdy Roboteg Spike yn INSPIRE Training

Technocamps Advanced

Yn ystod gwyliau'r ysgol, lansiwyd ein hysgol haf newydd Technocamps Advanced, ar gyfer 16+ oed, ym Mhencadlys Technocamps, Prifysgol Abertawe. Cynigiodd y rhaglen brofiadau ymarferol mewn meysydd blaengar fel Adeiladu Gwefan, Dysgu Peiranyddol, Modelu 3D ar gyfer Celf a Diwydiant, a Roboteg. Roedd yn hynod boblogaidd, gan roi sgiliau amhrisiadwy a gwybodaeth ymarferol i ddysgwyr yn y meysydd technolegol uwch hyn.

Ariennir y prosiect hwn gan Lywodraeth y DU drwy Gronfa Ffyniant Gyffredin y DU.

“Mynychodd fy wyres eich gweithdy ar Adeiladu Gwefan heddiw a mwynhaodd yn fawr iawn. Dywedodd ei fod yn addysgiadol iawn, yn ddiddorol, ac yn heriol tra'n dal i fod yn hwyl. Roedd hi'n meddwl ei fod wedi'i drefnu a'i gyflwyno'n broffesiynol iawn ac mae'n edrych ymlaen yn fawr at fodiwl yr wythnos nesaf. Gwnaeth ffrindiau gyda nifer o fyfyrwyr, llawer fel hi, sy'n colli'r ysgogiad dysgu yn ystod yr wyliau.”

- Mam-gu Dysgwr





Wedi ei ariannu gan
Llywodraeth y DU

Prifysgol Met Caerdydd UKSPF

Drwy gydol 2024 mae ein tîm ym Mhrifysgol Met Caerdydd wedi bod yn darparu gweithdai cyffrous i ddysgwyr hen ac ifanc! Mae'r gweithgareddau'n cynnwys cyrsiau Microgymhwyster, clybiau ar ôl ysgol Codio Creadigol a gweithdai ar Sgiliau Goroesi Digidol, Deallusrwydd Artiffisial, Creu Masgiau Calan Gaeaf, ac addurniadau Nadolig gyda thechnoleg laser, Argraffu 3D, Cerbydau Robotig a Rhaglennu Python. Ariennir y prosiectau hyn gan Lywodraeth y DU drwy Gronfa Ffyniant Gyffredin y DU.



Gweithdy Creu Mygydau Calan Gaeaf gan ddefnyddio technoleg laser yn Neuadd Gymunedol Llanhamlach, Powys

Cyflawniadau

522

o gyfranogwyr ym
Mlaenau Gwent

246

o gyfranogwyr 16+ oed yng
Nghastell-nedd Port Talbot

425

o gyfranogwyr 16+
oed ym Mhowys

1,189

o gyfranogwyr ym
Mro Morgannwg

Cynghorau UKSPF



Ein Harianwyr



Wedi ei ariannu gan
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Trinity Saint David



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Prifysgol
De Cymru



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Wrexham University

Ein Rhanddeiliaid

Diolch yn fawr i'n rhanddeiliaid.

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Airbus
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Amgueddfa Y Glannau
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STEM Cymru
Swyddfa Ystadegau Gwladol
TATA Steel
Techniquet
Technologies Connected
The Guide Association
The Scout Association
Theatr na nŌg
Tŷ'r Cwmniau
Volcano Theatre
Women in Tech Cymru
YMCA

technocamps



Wedi ei ariannu gan
Llywodraeth y DU



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