

Smart Places Seminar VI

Digital Skills: Embracing The Transformation

An Online Smart Place Seminar - 30th April 2021

Executive Report



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Welcome

John Houston - Economic Lead, Epping Forest DC and DIZ Programme Director

John welcomed everyone and set the scene for the day, outlining the event format which, in line with previous events the DIZ has delivered, would see colleagues joining from a number of sectors. Today’s subject on ‘Digital Skills: Embracing the Transformation’ was identified by partners as a key topic for discussion. With digital skills being ramped up all around us and its emerging importance, it is key that businesses, students and skills providers are prepared for that. John then handed over to Jim Wilkinson to give a commissioner’s perspective on the digital skills agenda.



Introduction to the digital skills agenda – A Commissioner’s Perspective

Jim Wilkinson - Digital Skills Partnership Co-ordinator, South East Local Enterprise Partnership

Jim highlighted the growing number of people talking about jobs and sectors disappearing off the edge of a cliff and being left behind if we don’t learn new skills. As a result of the pandemic, these changes are happening far more quickly than we had perhaps expected just a little while ago, – with, in some cases, digital and tech adoption happening 5 years sooner than was predicted pre-Covid.

41% of the largest global businesses have pressed ahead with automation in response to the pandemic bringing to the forefront the need to make sure that students have STEM skills in the same way they have English and Maths.

Too many businesses in our region have not yet embraced the possibilities of digital and, whilst many residents accept the need to develop digital skills, they don’t know where to go, are wary of the overwhelming range of resources available or don’t know what they need to know. There is also a challenge of access with estimated 300,000 people across SELEP without access to the right kind of hardware.

The SELEP Digital Skills Partnership (DSP) was launched back in July 2019, one of seven such Partnerships across the country, funded by DCMS. One of their priorities is the development of a ‘Digital Skills Prospectus’ for the region, a way of presenting all of the online and face-to-face courses and resources available from local, regional, national and global providers.

The next issue the DSP need to face though is how to motivate people that are concerned or confused about how things are changing? The DSP worked with Coursera, based in the US, towards the end of 2020, to enable residents across the region to access courses and qualifications, and receive certification, at no cost, and saw more than 2200 enrol across a good range of subject areas within the timeframe. They engaged with Futurefit, a Canadian organisation and one of the finalists in NESTA’s Careertech Challenge, to enable 100 residents to benefit from their AI-driven careers platform. They have also had discussions with Code Institute, based in Dublin, about their full- stack Software Development Bootcamp-style programme.

One of the benefits of DSP’s status, and the support of DCMS, is the introductions to corporates that result from their place on the National DSP Board, or discussions with DCMS about their plans in the UK. They’ve been delighted to work with Google on delivering face-to-face and online Digital Garage sessions for residents and businesses, with Microsoft to make introductions to the prison network across the South East and with Amazon, through Enterprise Nation, to promote the Small Business Accelerator programme to their Growth Hubs and regional businesses.

There is a need for those involved in economic development and skills, groups like the DIZ and DSP, schools, colleges, private providers, universities and third sector organisations, to help businesses and residents navigate the digital skills world, to understand and welcome the impact brought on even more quickly by the pandemic, and be motivated to do something about it. That only be done if there is a change in the conversation about what’s happening, talking up the positive impact of expected changes, and helping people see the good that will come from them, whether in terms of increased flexible working, more opportunities for leisure and enjoying the local creative sector or the benefits of remodelled high streets as high-street usage changes too.



DIGITAL SKILLS
PARTNERSHIP
SOUTH EAST





Insight on digital skills support, provision and requirements... for Life Vijay Bedarkar, Citizenship and Consumer Affairs, and Amy Mills, External Digital Eagle Relationship Manager, Digital Eagles, Barclays

Vijay introduced the Barclays programme, highlighting that the pandemic has resulted in a number of inequalities at the same time that there have been major digital developments in areas such as IT and healthcare as well as increased automation. Bigger businesses have been affected during this time, with 2.7 billion businesses saying they would have ceased trading had it not been for their tech and 61% of small businesses confirmed that tech has kept them in touch with their customers. Two thirds of businesses haven't felt like they've had the support for digital adoption with many unsure if they've got it right.



What will the future workforce look like? – It will aim to maximise productivity with digital adoption but managing wellbeing and mental health is also now key. There has been a shift in training priorities, with a focus on digital and transferable skills and Barclays offer free resources that can help with this.

Amy followed up by introducing the Digital Eagles programme, whose initial aim was to upskill colleagues to use new tech correctly but that now has sessions suitable for a wide range of customers and covering a wide range of topics. They have a wide range of digital content across various platforms and there are now 15,000 digital eagles across the UK. Their community and social pillar is looking to improve digital confidence and support people to find the correct skills for them. Dealing with frauds and scams are key offers but there is now a surge in demand around staying connected, accessing healthcare and employment, and supporting children and teachers.

Barclays Digital Wings has a host of free materials available that can assigned to certain organisations to support monitoring use amongst their own organisations and users. Life skills provides digital support for businesses to offer employees, including mental health awareness courses that can support both clients and staff.



Digital Eagles

Supporting communities

Our Aim is to understand the needs of our local communities so we can provide the knowledge and skills training that's right for them. Throughout 2020 we had a surge in demand for digital upskilling as a result of the pandemic removing face to face or other non-digital options. These are some of the things we have been **supporting our communities** with the most:

Staying connected

Zoom sessions to help people keep in touch with family/friends/colleagues

Fraud and Scams/Cyber Security

Ensuring people also have the knowledge and skill to stay safe

Back to basics

E.G. Internet basics: Browsers, search engines, setting up emails etc.

Digital skills to access healthcare and employment

Over 500 care homes trained last year

Sessions to help people use their digital skills to maximise job opportunities



Supporting children and teachers

New Code Playground content and sessions

Virtual classroom training

New content developing for education

Skills to reflect changes in **how infrastructure is delivered** and managed e.g. BIM/CDE

Skills to drive an **innovation mindset** and behavioural shift

Skills for new and **emerging technology** e.g. Virtual reality



[Insight... for Infrastructure](#)

[Findlay Young, Chief Information Officer, Volker Wessels](#)

Findlay spoke of how he is focused on the role of their people and what are the skills they have and what are those that that need developing in order keep moving forward. He began by sharing a video that succinctly illustrated the link between data and people.

The Volker Wessels vision is to be a data led company harnessing technology to make the right decisions efficiently.

How they go about large-scale infrastructure projects has changed a lot throughout the years and it is now much more about collaborative work and the free sharing of information. The emerging technologies – automation, drones, AI, wearable technology etc. are all data specific and require the right combination of skills to operate the technology effectively. An innovation mindset is a key attribute for understanding how the times are changing. and reacting accordingly and this brings with it its own skills requirement.

For Volker Wessels, building a workforce with digital skills is looked at in three ways; at the core there is a focus on apprenticeships and graduate business and infrastructure skills; then they are looking at bolstering the existing skills set of its people; and, finally, attracting those with specialist digital skills that are limited in supply. To support these efforts and to keep supply in line with demand there is the need for a cross industry focus, commissioning, community and partnerships. Being an employer of choice is Volker Wessels’ aim, through developing people for the future.

Findlay concluded by suggesting that whilst we often talk of ‘the digitally divided’ and ‘a diversity of skills’ it is important to recognise that the difference between these two is not the people themselves but the foundations that they stand on, how they are supported by their organisations, what common skills frameworks are in place and how those organisations collaborate to empower and enable their people who are motivated to acquire digital skills.

Insight for...Medtech and Life Sciences

Professor Gino Martini, Royal Pharmaceutical Society

Gino shared details of a range of real-life applications in medtech and life sciences, demonstrating how these specialised areas are increasingly becoming about data and the analysis of that data. Prior to Covid-19 it was very much around reactive medication, whereas now the focus has shifted to prevention, identifying individuals who are likely to experience particular problems and proactively offering the best treatment plans.

Understanding the data to ensure the medication prescribed is more precise and making sure it is given at the right time and the right cost enables patients and practitioners to tailor the care. Pharmacists are now mitigating Atrial Fibrillation (AF) with studies showing the feasibility of using trained clinical pharmacists to screen AF using pulse palpitations and a single-lead ECG device, enabling them to catch those suffering more quickly, a key benefit as many people can be asymptomatic.

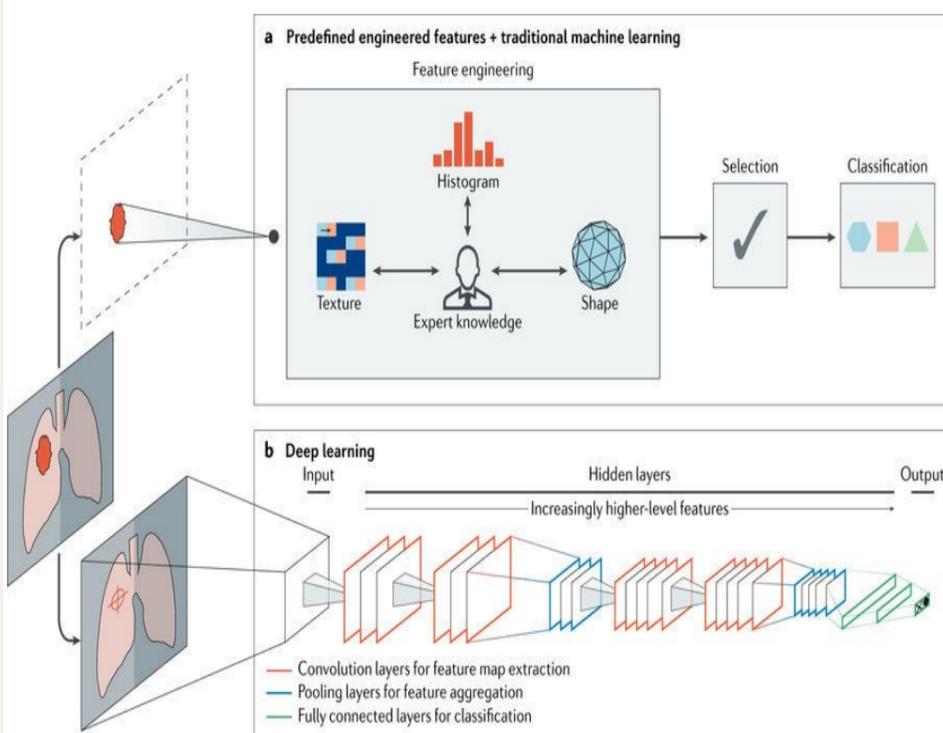
Another example is the measuring of skin fluids for diabetes patients, where they are given the ability to monitor blood sugar levels themselves. This data gathering is giving real time feedback about diet, wellbeing and general health.

Gino's final points were focused on the skills themselves, highlighting that there needs to be a life-long learning ambition to keep pace with the innovations, including the reinforcement of knowledge.

Gino pointed out that the numbers of young people taking IT qualifications has dropped by 40% since 2015. With many then expecting employers to invest time and money in training them and giving them the relevant digital skills this creates a challenge as so many employers do not have the capability to provide that training.

ROYAL PHARMACEUTICAL SOCIETY

This is what Artificial Intelligence actually looks like wrt diagnosis!



Skin Cancer Diagnoses - 2016

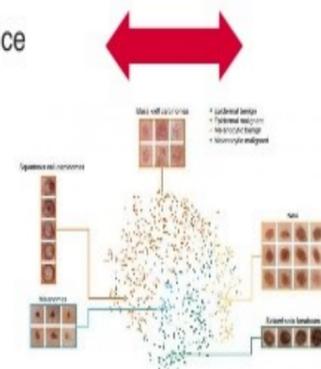
If found early 95% of skin cancers can be treated successfully

Pathologist Performance

96,5%

A.I. Performance

97,1%



Pathologist + A.I.

99,5%

<http://www.nature.com/nature/journal/v542/n7639/full/nature21056.html>

Note: AI playing major role in Medical Information

Workshop Summary

Following the presentations, attendees then broke out into three workshop groups based around the themes explored in each of the presentations. After the workshop session ended each group fed back its key discussion points to the rest of the attendees.

...For Life:

During this workshop the question around the digital landscape for everyone's own organisations was asked so that the scene could be set. Colleges are delivering digital skills qualifications; councils are pinpointing what's needed for residents; there is a need for digital flexibility for organisations; and, finally, there is a need for resources to engage children in taking up these skills.

The group were encouraged to share examples of best practice. This led to discussions on how libraries are being used as digital hubs, where workshops are being held, sometimes replicating face to face activities online and readily available working groups that people can join. There was also discussions around collaborations with Google Garage.

The team from Barclays explained how resources are pitched to people by using language that is appropriate to their needs. To help those who cannot gain access they look to the people and groups that influence and support these people so that Barclays can make connections through them.

The key takeaway from this session is the question of 'why?', ie. why learn digital skills? Explaining real-life impacts and using assets that already exist is so important in giving context to people and communicating with them.

...For Infrastructure:

The key focus for this group was how are we seeing digital and how we are coping with it. Exciting and engaging young people with the prospect of a rewarding digital career path, laying the foundations early, showing that within the private and public sectors there is potential and developing that is fundamental. There is emerging digital talent but there is also a need to build upon the traditional skillset, enhancing it with appropriate digital skills? There is a need to establish a middle ground on digital skills that more and more can acquire.

They also spoke about the problem we may face with infrastructure especially how do we get fibre in the ground in rural areas with minimal interruptions - this requires an advanced skillset to enable these projects. To enable people to develop these skills it is important that there is the appropriate training, such as the SFIA qualification which tries to give structure to an array of skills and entry level comprehensive tasks.

Looking at other countries to see how they develop and mirror what they do in digital skills, can help bridge this gap between the needs and supply. The group was left with the question, 'do we need to look beyond our own boundaries for what works well, and can we then emulate that nationally?'

...For Medtech and Life Sciences:

An initial strand of discussion was that when Public Health England moves to Harlow there will be a need to recruit a whole range of data scientists to assist lab technicians and other roles within the organisation. There is a whole new type of job being created due to the rise in the digitalisation of data science. It was agreed that there was a need to get key employers together to improve STEM offers and products for children's education. Locally, Kao Data are creating STEM products and it was discussed how STEM products are particularly relevant in educating people about problem solving - a particularly useful skill in the wake of a pandemic.

It was agreed that everyone aged up to 18 needed to be studying statistics. There is a need for more people doing higher level statistics than A level maths, as this is a more relevant digital skill for the workplace. There is a need to 'stitch in' additional modules at university to support learning in coding or computing. It was also discussed that there was still a shortage of teachers who are well versed in coding and computing and there remains lots of redundant content in the current computing curriculum.

Finally, lots of young people are not sure what AI and machine learning means for the future and it is important to make that connection to real-life so that they can understand its importance.

Wrap Up and Close

Lee Myall, Chief Executive at Kao Data

Lee closed with a few remarks introducing Kao Data which, as a major data centre within Harlow, is a key digital destination within the Digital Innovation Zone as well as home to the largest supercomputer in the UK, Lee closed the session by thanking everyone for attending and taking part in this first online Smart Place Seminar to be delivered by the DIZ.

His key takeaway from the event was that we all have a responsibility to get skills transferred and to ensure sure people are also further trained within the workplace to drive forward this change, a change that is already happening.



Essex + Herts Digital Innovation Zone

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To find out more about the DIZ and to view the event recording visit:

<https://diz.org.uk/>



Contact:

Mike Warr, DIZ Programme Manager: mwarr@eppingforestdc.gov.uk

John Houston, DIZ Programme Director: jhouston@eppingforestdc.gov.uk