

# In Our View



**Main feature:**

## Getting women back to working in computing

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# President's letter

June 2019



## Why we need more women in IT

Welcome to the issue for this year's President's Conference, where Sandra Taylor takes over Socitm's presidency from me. With Sam Smith among our vice-presidents and Chantelle Denny and Nadira Hussain serving as directors, the society will continue to have women well-represented at its highest levels.

Sadly the same cannot be said of the IT industry as a whole, where just one in six employees are female. Increasing this proportion is not just a question of fairness, but a way to bring and return talented people into the workforce. Local public services are best designed and managed by people representative of those they serve, meaning we have a particular responsibility to remove any barriers to work. Sandra, Sam and Nadira, as well NHS Digital's Diane Bullman, contribute ideas and techniques that can change things for the better in this issue's main feature ([p12](#)).

This issue also explores the benefits of collaboration. Helsinki's chief digital officer Mikko Rusama talks about the importance of sharing experiences with other cities internationally, including London, on [p16](#). New vice-president Huw McKee talks about how the public sector in Wales works together for the common good ([p18](#)), something which was also a strong theme of Socitm's Share Cymru event in Cardiff last month, reported on [p6](#).

I will be chairing a conference workshop on the ethical use of emerging technologies including artificial intelligence, and you can read why I feel this is vital on [p21](#). I look forward to discussing this and other issues with you over the next two days.

Nicola Graham  
Socitm President

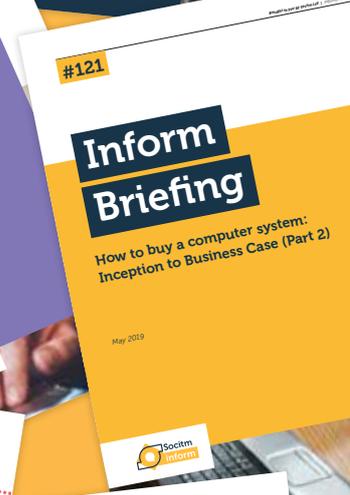
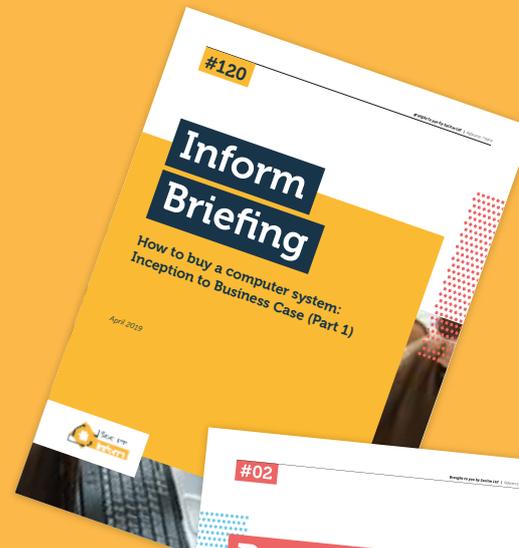
# Inform update

*We've been busy!*

Socitm Inform has published a range of new reports in 2019. These include a five-part series on the risks of cyber security to local government, covering topics including people and teams; how to take advantage of external resources; planning; and understanding and managing the changing risks.

New standalone briefings include how to improve digital accessibility in design and content management of websites and apps as well as a practical guide on moving from the GCSX system to alternative secure email services.

To access all Socitm publications visit:  
[socitm.net/publications](https://socitm.net/publications)



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# Share Cymru: Wales supports Welsh language technology

The Welsh Government is funding work to help technology work in Welsh, both for those who speak the language and to develop expertise in multi-lingual technology, Socitm's Share Cymru event heard.

"We need to make sure that people who want to access services through the medium of Welsh can do so," minister for finance and trefnydd Rebecca Evans told the event, held in Cardiff on 21 May. Public service organisations in Wales must provide Welsh language services, and are regulated in this by the Welsh Language Commissioner.

As well as it being the right thing to do, Evans added that the Welsh Government sees economic opportunity in the country's language



"We need to make sure that people who want to access services through the medium of Welsh can do so."

*Rebecca Evans, Welsh Government minister for finance and trefnydd*

rules. "Wales could be world leader in multi-lingual technology", she said. As part of its work to embed Welsh into digital public services, it is working with the UK Government Digital Service and altering procurement processes.

"Our aim is for Welsh language services to be easy for you to provide to the public, and for the public to have those services without asking," Evans added.

In a later session, Gareth Morlais, a Welsh language technology and digital media specialist for the Welsh Government, discussed specific work to promote Welsh language technology. Morlais said that the shift from typing to speech could force Welsh speakers to use English for digital services, as big technology providers including Amazon do not consider half a million Welsh speakers as a big enough market.

He described a family discussing the weather in Welsh, until someone has to switch to English to use Amazon's Alexa service. "Suddenly, the magic spell in that family has been broken," he said, adding that Mari Stevens, director of marketing for Visit Wales, recently summed the problem up as "Alexa is the only non-Welsh speaking member of our family".

To tackle what it sees a market failure, the Welsh Government is commissioning services designed to enable Welsh-language speech interfaces which it will make available through open licences. This includes commissioning Bangor University's language technology centre to work on Macsen, a Welsh equivalent to Siri which can handle spoken questions. Overall, the work will involve speech

to text, translation technology and conversational artificial intelligence, and the government plans to ask local authorities to share their translation archives to save work when a phrase or sentence has already been translated by the public sector.

Morlais said that at the moment, many healthcare professionals type notes after consultations, but in future voice recordings could do this job. However, unless digital translation systems are available this could force many consultations to take place in English, given a lot of secondary care for Welsh patients is provided by English-speaking professionals, both in Wales and over the border in England. "I don't want the need to keep English notes to stop the conversation taking place in Welsh," said Morlais.

Discussions between delegates suggested that some Welsh councils find it difficult to obtain fully bilingual products and services. Morlais responded that buyers should challenge suppliers to provide Welsh language versions: "I think you ask them to do the work," he said. "If you specify something and people want to be your customer, I would imagine they would do their best to fulfil it." He added that buyers of Welsh language services can help by providing detail on what they require.

## Read more

Welsh Language Commissioner: <https://bit.ly/2WqJvSV>

Welsh National Language Technologies Portal (including Macsen): <https://bit.ly/2EB8f0s>

Welsh language technology and digital media action plan: <https://bit.ly/2WqKrGV>

## Share Cymru:

### In brief

#### Socitm's Top Talent targets young voters

Digital services should encourage young people to vote, such as by engaging them in topics that interest them, members of Socitm's Top Talent leadership scheme told the event.

From 2021 those aged 16 and 17 will be able to vote in Welsh Assembly elections and the Welsh Government has set a challenge of devising "a digital toolbox to embed digital at the heart of democracy in Wales". Reg Kilpatrick, the Welsh Government's director for local government and public services, said

this offered the chance to change how democracy in Wales works. He added that the government sees identifying and supporting future public-sector leaders, such as through the Top Talent scheme, as vital.

Members of the Top Talent scheme proposed automatic voter registration based on data on pupils held by schools; topical persuasion through social media; and telling young people that electoral registration is a key part of getting a credit score.

Speakers said local authorities should use social media platforms favoured by teenagers such as Instagram and Facebook Live, to stream public meetings and press conferences and to explain the voting process. Online voting, which raises questions of security and integrity, was excluded from the exercise.

#### North Wales installs gigabit broadband

Six councils are among 14 public-sector organisations setting up gigabit-capable broadband services across north Wales, the event heard. Barry Eaton, chief digital officer of Denbighshire County Council, said that the North Wales LFFN (local full fibre network) project will largely replace copper-wire internet connections: "It should be a real game changer," he said. Services will be bought through the Welsh public-sector PBSA network.

The project also aims to bring fast broadband to telephone exchanges across the area: "I don't see why living in a village in north Wales should stop me doing things that I could do in central Cardiff" such as online learning, said Eaton.

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# Share Cambridge: social care IT needs to step up says NHS Digital

Adult social care (ASC) providers struggle to deal with information governance and often lack specialist staff, Mark Nicholas, NHS Digital's chief social worker and senior clinical lead for social care, told Socitm's Share Cambridge event.

The data weaknesses of the 21,200 mostly private-sector organisations providing ASC in England means the Department of Health and Social Care "is not sighted on what's happening," he told the event, held in Cambourne in Cambridgeshire on 25 April.

As part of compliance with the NHS Long Term Plan, NHS Digital is considering digital maturity assessments of ASC providers, similar to those already used for NHS organisations. Nicholas said that many have poor digital maturity: "I have seen people discharged from hospital going into a residential home clutching a brown envelope on their stretcher," he said, containing medical records.

He contrasted the software used by GP surgeries and ASC providers, with GP software having to meet standards covering areas including interoperability, but "it's the Wild West in terms of care provider systems". NHS Digital is looking at whether it could apply similar standards to ASC providers' software, but he added that many providers also have poor standards of data and cyber security, as well as lacking the smartcard-based staff authentication systems used by the NHS.

Nicholas added that while local authorities do not cause IT maturity headaches in ASC, almost all use case record software from the same supplier, giving it a near-monopoly.



Mark Nicholas: social care providers may face digital maturity assessments

Software used in the NHS is usually designed and implemented with significant levels of involvement from healthcare professionals, but that is not the case in ASC: "We have to step up," he said. "I still get social workers saying to me, 'we don't do data'. I say, you bloody well should do."

Appropriately for an event held in a new town – Cambourne has been built from scratch since 1999 – Share Cambridge saw Socitm taking new approaches in how it runs events. The day, which focused on health and wellbeing, ended with sessions designed to help attendees improve their own wellbeing.

Lisa Harrington, the managing director of Socitm's training partner QA, talked about how she has become more resilient in handling career challenges while caring for both children and parents.

Harrington, who worked for 10 years at BT including as chief information officer and group chief

customer officer, said that four key things had helped her. The first is finding a "tribe", a support group for professional life that among other things can provide early warnings of when things are getting difficult. The second she summarised as "I am extraordinarily good at saying no," but that she used to take on too much. Her other two key pieces of advice to delegates were to look after their physical and mental health and learn to pace themselves.

She added that women working in senior roles inevitably set examples for others: "You are a role-model, whether you know it or not."

## Read more

This is an edited version of the Inform briefing on Share Cambridge, which will be available shortly for members via the Socitm website:

<https://bit.ly/2Md1rfY>

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# Nations and regions news

To pass on local authority IT news, email [hello@socitm.net](mailto:hello@socitm.net)

## Scotland

**Aberdeen City Council** is adding 3,500 control units to its new and existing LED streetlights, which will communicate using a cloud-based network. The system, provided by Pinacl, will be able to control and dim lights and monitor them remotely for faults.

<https://bit.ly/30SjPOD>

## Wales

The **Welsh Government** has spent £1.2 million to allow up to 467,000 teachers and schoolchildren across Wales to use Microsoft Office 365 at no charge. The deal also covers a version of Minecraft that helps users to learn coding.

<https://bit.ly/2HKnlmF>

## Northern Ireland

**Belfast City Council** is planning to launch Belfast Coin, a mobile app that will let users gain rewards, later this year. The app will cover local shopping and activities such as going to the gym or voluntary work, following similar implementations in Liverpool, Hackney and Tower Hamlets.

<https://bit.ly/2EDVFOh>

## North-east England

**Gateshead Council** used the local elections on 2 May to trial e-voting technologies, with voters at the civic centre invited to use a touchscreen system developed by University of Warwick after casting a paper ballot.

<https://bit.ly/2EEdBbt>

## Yorkshire and the Humber

**Leeds City Council** is aiming digital services at residents of its 57,000 council house residents. Chief digital and information officer Dylan Roberts said the council wants everyone in Leeds to be digitally literate.

<https://bit.ly/2GiiBi>

## North-west England

**Greater Manchester Combined Authority** will establish a full-fibre network to link up to 1,300 public sector sites, spending up to £32 million on design, implementation, maintenance and support.

<https://bit.ly/2YRI3Yq>

## East Midlands

**Nottinghamshire County Council** is planning to develop MyNotts, a one-stop app for local government services, designed to make it easier for repeat customers to make reports, payments and applications.

<https://bit.ly/2wwoszP>

## East of England

**Essex County Council** has combined its work on digital, strategy and innovation into a single corporate development team focused on change. It is also using code written by Stockport Council to create a new version of Essex.gov.uk, its head Jason Kitcat has said.

<https://bit.ly/2EFk3ii>

## South-east England

**Surrey County Council** is seeking a partner for a two-year transformation programme that will aim to turn it into a 'digital council' which uses connected systems, a single view of data and internet of things technologies.

<https://bit.ly/30OeeIO>

## London

**Ealing Council**, working on behalf of London Councils, has contracted with PanLogic to provide a London-wide property listing platform for temporary accommodation for homeless households. 13 boroughs have agreed to take part in its development.

<https://bit.ly/2Vvxhnp>



# Getting women back to work in computing

**Despite leading roles in computing's early days, women hold just 16.5% of UK jobs. How can the public sector help change this?**

'Computer' used to be a job title, often held by a woman. The Langley Memorial Aeronautical Laboratory, a forerunner of Nasa, established a team of five female computers in 1935 and by 1942 they were essential, with a memo stating that the engineers admitted that "the girl computers" did mathematical work rapidly and accurately. The organisation also recruited a team of African-American women, segregated under the laws of the time, remembered in the book and film *Hidden figures*.

As computers became machines, running them remained women's work. Alongside articles on Vanessa Redgrave and Twiggy, the April 1967 US issue of *Cosmopolitan* included 'The computer girls', a feature on how 20,000 American women were enjoying the new career of programming.

"It's just like planning a dinner," Grace Hopper, who worked on the US's first electromechanical computer then helped to design the programming language Cobol, told the magazine. "You have to plan ahead and schedule everything so it's ready when you need it. Programming requires patience and the ability to handle detail. Women are 'naturals' at computer programming."

But as Caroline Criado Perez notes in her recent book *Invisible women*, by the 1980s computer programmers were seen as male nerds, and that male dominance remains true today.

Of 998,000 people working in the UK as IT and telecoms professionals in 2018 just 165,000 were women, according to the Office for National Statistics. More than 30% of IT project and programme managers, as well as web designers and developers,



"We're missing a trick. There's a pool of workers who need flexibility, and we need those people and those skills."

*Sam Smith, Cambridgeshire and Peterborough councils and 3CS IT*

are women, but for programmers and software developers the figure is below 13% (see chart on p15).

Sandra Taylor, incoming Socitm president and head of digital and ICT services at Dudley Council, thinks there are a range of reasons why men dominate IT, but adds: "I have a particular bee in my bonnet about how the IT profession is portrayed in the media." Diane Bullman, senior organisational and learning development manager at NHS Digital, echoes this, saying there is a lack of female role-models: "It is still seen as a very male-dominated area."

Computing's image may affect people's choices long before they join the labour market, with females making up just 20% of computing GCSE candidates, 12% of those for computing A-levels and 13% of computer science degree applicants. "We have to make those posts aspirational, things people want to do," Diane says.

### Mind the pay gap

That image is unlikely to be enhanced by the existence of gender pay-gaps, the difference between the average hourly amount organisations pay the women and men they employ. Most employers in England, Scotland and Wales with more than 250 staff are legally required to provide data on this, which is published by the government. The law covers local authorities in England but not those in Scotland and Wales, although some Welsh councils have released information.

The data for 2017-18, published in March 2019, found that the average woman working for an information or communication employer was paid 82p for each £1 earned by the average man, based on median hourly wages. Capgemini, the largest government IT supplier that reports pay data, paid women 81p for each £1 it paid men, with women occupying just 14.5% of its highest-paid quarter



"It's about how we remove the barriers that might make it difficult for people from diverse backgrounds to get into the sector."

*Sandra Taylor, Dudley Council*

of jobs. Its median bonus pay for women was 45% lower than men's (see table on p15).

Councils – considered as a whole, rather than just IT services – do somewhat better. Birmingham City Council, the UK's largest, paid women 91p for each £1 paid to men on the median hourly wage basis and women made up 59% of the highest-paid quarter of staff. (The council does not pay bonuses.) An analysis of 10 major government technology suppliers and 10 large local authorities shows that in general councils have less of a gender pay-gap than suppliers.

At Dudley Council's IT service, women fill 37% of the jobs and a third of the management roles, although overall the council pays women 80p to men's £1 on the median hourly measure. "It's probably a reflection of the roles women are doing in the public-sector," Sandra says, as these tend to be less well-paid. It has been illegal to pay women and men different rates for the same or similar work since 1970, although some councils have fallen foul of legal action in this area.

Socitm vice-president Sam Smith, who is strategic IT lead for shared services at Cambridgeshire and

Peterborough councils as well as head of IT and digital for 3CS IT, says that local authority pay grading helps standardise what people receive for doing the same work. The problems arise from career progression: "What you get is women not applying for the higher-paid jobs," she says. "That's where the gender gap kicks in."

### Clearing internal barriers

Sam reckons that many women have "internal barriers" that make them less likely than men to apply for new jobs, such as if they do not quite meet the stated requirements. She once had to persuade herself to ask her manager about an opportunity for promotion: "It took a lot for me to do it," she says. "I put the thought in his head. There was no barrier once I had suggested it, but I had to work quite hard to suggest it."

As a manager, she encourages anyone she thinks might qualify to apply for jobs. Although this might help women more than men, it does not disadvantage anyone or change standards – it just aims to get more people to apply. "It's easier to do internally, but that's a small pool," Sam says. "We have to think how we can that externally as well." This could involve inviting contacts through networks such as LinkedIn, as well as avoiding tech-speak in job adverts.

Sam adds that it would make sense to sell the advantages of working in public-sector IT, including openness to flexible working and good maternity leave provision: "We're missing a trick. There's a pool of workers who need flexibility, and we need those people and those skills," she says. Again this can help men as well as women, but women are more likely to have caring responsibilities which are easier to fit around flexible working.

It can be worth considering the recruitment process too. Diane Bullman says that alternatives to standard face-to-face job interviews can build a more rounded view of

candidates, such as an 'assessment centre' where short-listed applicants take part in exercises and tests. "The one who shouts loudest that 'I'm the best' doesn't always work that way," she says.

Diane adds that public sector organisations have to work to be considered as technology employers, such as at career fairs: "People see an NHS stand and say I don't want to be a doctor or a nurse. We need to promote the profession in the public sector." Florence Nightingale, known primarily for her nursing work in the Crimean War, can illustrate the importance of data in medicine: in



"Women who have had career breaks often feel isolated and lacking in confidence."

*Nadira Hussain, Socitm*

1857 she designed the 'Rose diagram', a circular graph showing that more war deaths had resulted from disease in hospital than fighting, to persuade the government to introduce better conditions for injured soldiers.

Sandra Taylor says that focusing on those already working for the organisation can help bring women into IT jobs. Dudley is considering making some jobs 'apprenticeship-first', allowing staff to develop new careers through supervision, mentoring and additional training, and is working with other councils in the West Midlands Combined

Authority. She adds that it can also be worth promoting the range of roles available, including the likes of project management as well as programming.

### Back after the break

There is particular potential in helping women to re-enter work after a career break. Nadira Hussain, Socitm's director of leadership, development and research, introduced such an initiative at Enfield Council's IT service which continues to operate. "Women who have had career breaks often feel isolated and lacking in confidence," she says. As well as providing training, the scheme involves regular meetings of returners, allowing them to support each other. Those on the scheme work on a fixed-term basis, usually leading to permanent employment. "The outcomes have been really positive, not just for junior roles but for career progression as well," Nadira says. "I'd like to see this scaled up across the public sector."

Socitm has established the Empowering Women in a Digital World programme as part of its Leadership Academy, which offers similar career development, support and networking opportunities to women. Nadira says this helps build personal resilience and self-understanding by enabling participants to establish their visions, values and beliefs: "It's very much about putting the lens on oneself," she says, then working out how to create more engaging and sustainable relationships within the workplace and externally.

Employers could encourage staff to join such groups, although should probably not seek to run their own as they work better when run off-site by training experts with participants from a range of organisations. However, Nadira adds that if a programme needs to be delivered at scale within an organisation, then it can be done better locally.

Employers should benefit from

measures to help recruit and retain women, as well as helping career re-entry. "Our workforces should represent the communities they serve," says Sandra Taylor. This is particularly true for technologists, who often play major roles in designing digital public services: "It's important that these are developed by a diverse workforce," she says, as people tend to consider things from their own perspectives. It should also help public sector IT services find enough of the right people: "If you don't have the fullest pool of talent available to you, you're going to miss out," adds Sam Smith.

And how should men see efforts specifically aimed at helping women? "I don't want to discriminate against anybody," says Sandra Taylor. "It's about how we remove the barriers that might make it difficult for people from diverse backgrounds to get into the sector."

Nadira Hussain adds that, given only 16.5% of IT professionals are women, specific action needs to be taken until this proportion is significantly higher. "I very much base things on meritocracy, but I also believe that we've got to do something positive and visible that addresses and alleviates the issues we are facing," she says. "We need menfolk on-side, because they can help overcome this inertia and support a positive response."

### Read more

NASA's female computers:  
<https://go.nasa.gov/2j0Cph3>

'The computer girls' article:  
<https://bit.ly/1wgToNa>

Nightingale's Rose diagram:  
<https://bbc.in/2EOroMT>

Government advice on gender pay-gaps:  
<https://bit.ly/2LOxW2H>

Socitm's Empowering Women in a Digital World programme:  
<https://bit.ly/2VTkTON>

**Women make up just 16.5% of the UK's IT professionals**

(Numbers are in thousands) Men Women % Women

	Men	Women	% Women
IT specialist managers	155	34	17.8
IT project and programme managers	52	24	31.3
IT business analysts, architects and systems designers	120	20	14.1
Programmers and software development professionals	296	42	12.5
Web design and development professionals	42	18	30.1
Other roles	168	27	14
[For comparison] All professional occupations	3,232	3,274	50.3

Source: Office for National Statistics

All IT and telecoms professionals:

834,000 Men  
165,000 Women



**Large local authorities pay men more than women - but large IT suppliers have bigger gender pay gaps**

Women's median hourly pay compared to men's

**Local authorities:**

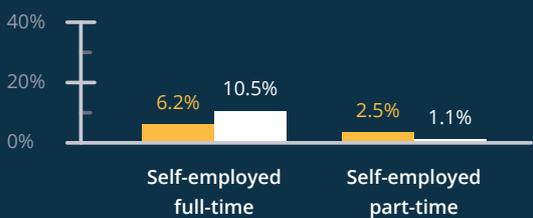
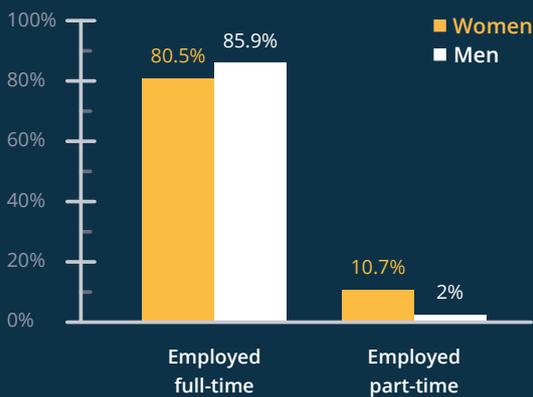
Barnet Council	129%
Cardiff Council	95%
Essex County Council	92%
Sheffield Council (HQ)	92%
Birmingham City Council	91%
Cornwall Council	89%
Leeds City Council	89%
Kent County Council	88%
Hampshire County Council	80%
Lancashire County Council	80%

**Government IT suppliers:**

FDM Group	100%
Liberata UK	93%
Microsoft UK	92%
Deloitte	88%
IBM United Kingdom	88%
Specialist Computer Centres	84%
Capgemini UK	81%
Entserv UK	75%
BAE Systems Applied Intelligence	74%
Sopra Steria	63%

Source: Gov.uk gender pay gap service (<https://bit.ly/2Is72IA>). Councils: four largest English county councils, four largest English unitaries, largest London borough and largest Welsh unitary, all by population. Gender pay gap data not available for Scottish and NI councils. IT companies: largest suppliers through the G-Cloud framework to end-December 2018 with more than 1,000 employees and available gender pay gap data. Data for year ending 31 March 2018.

**Women in IT are five times as likely to work as part-time employees than men**



Source: Office for National Statistics

Local authorities may offer better options than companies on flexible working, maternity leave, development, training and pensions.

**So how can they further encourage women to apply for and stay in jobs?**



Encourage everyone suitable to apply for internal promotions.



Promote the full range of jobs within IT services, and IT services within public-sector organisations.



Consider assessment days that test a range of skills, rather than just interviews.



Consider special schemes to help women returning to work after a career break.



Consider schemes that help women to build confidence and network.

# Helsinki's digital twinning

## Mikko Rusama, the Finnish capital's first chief digital officer, is sharing ideas with peers around the world – including in London

Helsinki is a digitally-advanced city. March saw it hosting the initial test-drive of what is claimed to be the world's first all-weather autonomous bus, co-designed by Finnish company Sensible 4 and Japanese retailer Muji, and it is running smart mobility pilots that aim to reduce truck queues and predict traffic. The city provides extensive open data services, including Parkkihubi for free parking spaces and MyHelsinki.fi for up-to-date information on places, events and activities in the city and region.

It is also internationally-minded. "Helsinki aims to be the world's most functional city and to offer the best possible conditions for urban life, both for those who already live in the city and for those who contemplate moving here," says a recent announcement on the city's plans to improve English-language services. Greater Helsinki's foreign-language population is expected to double by 2035, from 201,000 to 437,000, when they will make up a quarter of the population.

In February, the city's first chief digital officer Mikko Rusama combined these two concepts by signing a 'city to city digital declaration' with his counterpart Theo Blackwell at City Hall in London. The two agreed to collaborate on areas including the ethical use of data and artificial intelligence, smart city technology, promoting digital innovation in the private sector and data sharing in the public sector. Like Blackwell, Rusama has worked outside government, having served as chief digital officer of Finland's national broadcaster YLE until August 2018.

### Twinned with London

The two also pledged to co-operate on specific techniques including 3D city modelling and digital twins, virtual models of processes or services that allow for testing and analysis that would be difficult in reality. But Rusama is keen on a wider kind of digital twinning, where Helsinki collaborates with

other technologically-advanced cities around the world. The city has partnered with New York on a cybersecurity challenge and in April hosted a data and ethics event attended by representatives from Amsterdam, Utrecht in the Netherlands and Tallinn, the Estonian capital that on a clear day can be seen from Helsinki, as well as delegates from other Finnish cities and Theo Blackwell. "We are facing similar challenges," Rusama says of the other cities. "Why can't we work together?"

The event in April focused on the development of ethical standards for use of artificial intelligence (AI) and data in healthcare, working internationally with other cities and research institutes. It discussed how AI could codify best practice and use it on a wide scale, remove human bias and swiftly spot patterns and optimise systems in ways people cannot. But the event also considered public concerns and how cities can innovate and benefit from these new technologies safely. Rusama says that

high-level principles alone are not enough, and the event's participants have committed to work together to finding, testing and sharing a common practical approach to using AI.

There are particular opportunities to collaborate with London, such as the potential for a joint civic innovation challenge along the lines of ones already organised by Blackwell. The two cities could also exchange staff, with Helsinki able to share its expertise in 3D visualisation and keen



"I think sometimes a good service is that you don't need to use any service."

*Mikko Rusama,  
City of Helsinki*

to access to London's expertise on smart cities. "We are willing to share what we know and vice versa," says Rusama.

While the 8.8 million strong population of London is bigger than Helsinki's 650,000, its region (1.5 million) and indeed all of Finland (5.5 million), there are plenty of similarities. Both cities have strong technology sectors, dominate their national economies and see themselves as global cities.

On the last point, Rusama sees a specific benefit for London in international work: "In the middle

of Brexit turbulence, it's increasingly important for London to say 'we are open and want to collaborate'."

Healthcare is an area of particular interest, especially shifting from reactive treatment of diseases and conditions to proactive, personalised support that prevents them. Helsinki already has an online service, Omaolo, which can provide basic health advice based on answers given by users and it is planning a more advanced version. As part of its recently-approved digitalisation programme, Rusama says the city is looking at how it can identify people at risk of specific problems such as diabetes and offer them help and support.

Similar technology could also be used to save citizens time, by predicting responses and checking citizens approve of them rather than asking people to choose from scratch. Rusama says that Finland's tax authorities already generate personalised tax proposals: "If you are happy with it, you don't have to do anything," he says. Helsinki could do something similar with school places, automatically offering parents and carers places for children at the nearest schools, given that most already choose based on distance and language (with schooling provided in Swedish as well as Finnish).

Predicting what people want fits Helsinki's wider aims, Rusama adds. "If you think about our mission to be the most functional city, I think sometimes a good service is that you don't need to use any service. People get the service proactively in a personalised way."

Proposing schools for children in London might be tricky, given many parents and carers choose schools far from home for a range of reasons. However, Rusama believes there are numerous other applications where a predictive approach could work, such as using data to find which buildings are at greater risk of fire and targeting those for advice.

### Analysing algorithms

But for citizens to trust local authorities to make predictions and suggestions for them, transparency will be vital. Rusama says that meeting legal requirements on data protection is just the starting point: "We should always respect individual rights and human rights. We have to be able to clarify how our algorithms are working if we use those. We need to be able to track the decision trail." This includes any use of artificial intelligence, he adds: "It's not a master, it's a slave."

Rusama adds that many people are strongly driven by convenience rather than privacy, which is why they continue to use Google and Facebook despite data scandals: "If people see real value to what they get, they are willing to give information and use the service." From a local authority's point of view, this should mean giving citizens the option of providing data once, if they are happy for it to hold and use this.

"My hypothesis is that many people choose the easiest, most convenient way," he says. "The big change is in culture – how can we be more customer-driven like Facebook and Google are?"

### Read more

**Helsinki-London announcement on digital co-operation:**  
<http://bit.ly/2Yq6k6p>

**Test-drive of Gacha autonomous bus:** <http://bit.ly/2YuTjJ7>

**Collaboration with New York on cybersecurity:**  
<http://bit.ly/2EhqQ1N>

**April AI and data ethics event:**  
<http://bit.ly/2YqifRW>

**Article by Nesta's Eddie Copeland on this event:**  
<http://bit.ly/2Hq7poe>



## Huw McKee

Head of IT and digital transformation,  
Conwy County Borough Council

# Singing the praises of collaboration

Huw McKee on the benefits of working together in north Wales and more widely

*After studying maths and computing at University of Wales, Cardiff, from 1987 Huw worked for Logica for two years then with college friends he set up his own company focussed on software development in the pharmaceutical industry. After the company's sale to a competitor a decade later he moved to Vertex, a subsidiary of United Utilities, and within a year became IT director for the group's water and waste water regulated business.*

*Following brief periods at delivery company Yodel and working as a consultant for a number of authorities in north Wales, he moved to Wolverhampton City Council to lead a transformation programme. He took his current role at Conwy in 2014.*

### **Q: What have been the main aspects of your work at Conwy?**

My role involves what may be deemed the traditional head of IT role as well as the innovative and exciting opportunities that come with digital transformation. I was fortunate to inherit a highly skilled and committed team that not only ensures we have the infrastructure and networks in place to underpin our services, but also take a lead on change projects and programmes within the authority.

One of the major projects we have delivered was our Modernisation Programme, where we transformed and digitised our work environment through new digital services internally for staff as well as for external consumers. The programme focussed on preparing staff for colocation and open-plan working at our new offices in Colwyn Bay. The offices and the programme have had national recognition and it is something of which we are truly proud.

In parallel to this the team of internal IT business partners have successfully managed and delivered solutions within our service streams including social services, schools, roads, environment, leisure and legal. The role also involves championing improved digital connectivity across our rural county, in collaboration with neighbouring authorities and NHS organisations. This involves enhancing fibre connectivity through a local full-fibre network programme as well as increasing wi-fi in public areas and mobile coverage in an area with a challenging terrain. It is great to see how we in the region's public sector are able to collaborate across organisations, as well as with the Welsh and UK governments and the private sector, to deliver digital successes in beautiful rural locations.

### **Q: How does your private industry experience help with your public sector role?**

The commercial dynamics within both sectors are ever so different, but the intent to deliver excellent services to consumers is the same, as well as the need for return on investment to stakeholders.

In the private sector, the importance of robust and rigorous supply chains is key, along with the importance of excellent supplier networks and robust delivery. This is also true in the public sector where high quality delivery is required even under continued challenging austerity measures. Never has the importance of collaboration and maximising best practice from other authorities across the UK been more important.

Another aspect that spans both sectors which is close to my heart is the importance of strong leadership. Having worked in a number of industries over 30 years it is evident to me that success is most often delivered by those who

provide strong but also appropriate leadership. I have witnessed many dictators who deliver short-term solutions and successes, but to deliver sustainable successes within a learning organisation you need strong and appropriate leaders who believe in delegation and empowerment.

The public sector at times appears to be more risk-averse. We could learn from the private sector that it makes sense to empower people and take the occasional leap of faith. In particular, we can be inspired by the online retailers who experience success by providing services that are available anywhere and at any time.

**“We could learn from the private sector that it makes sense to empower people and take the occasional leap of faith.”**

**Q: How do you collaborate with others as a Socitm vice-president?**

Since joining Conwy in 2014 it has been clear to me that collaboration has been on its agenda for many years. However, I have seen a significant change among the heads of IT of public sector organisations in north Wales, who now work as a team, not only across local authorities but also health, police and fire services. We ensure our teams meet and share best practice and learning whatever public services we provide. This has created a trusted network of partners through which we share knowledge and skills to maximise benefit for our region, our teams and our customers.

There is a strong bond across our Socitm Wales regional group. It is well attended, supported by all local authority heads of IT and has proved itself as a forum to share learning and best practice. It has developed so much over the last few years that collaboration has extended to delivering successful projects and programmes with the Local Government Association in Wales and the Welsh Government.

My role as Socitm vice-president has also helped me realise the greater potential of collaboration beyond our region. There is so much that can be learnt across the whole of the UK and with more diverse sets of stakeholders, not only in increased learning for us in Wales but also so others can witness and learn from our passion for collaboration and delivering projects in partnership. It is a great time to be working in the public sector in Wales as the relationships between different public organisations are excellent. It feels that we are striding into an exciting digital future through collaborative partnership.

**Q. What do you enjoy doing outside work?**

I appreciate that I will sound like the stereotypical Welshman, but I guess I am!

I am a member of a male voice choir called Meibion Marchan and I have a huge passion for Welsh rugby union, Welsh football and the related culture involved with supporting our wonderful national teams. Welsh is my first language, as well as that of my wife of 30 years Iona and my three sons Sion Ifan, Gruffudd Ifan and Owain Ifan.

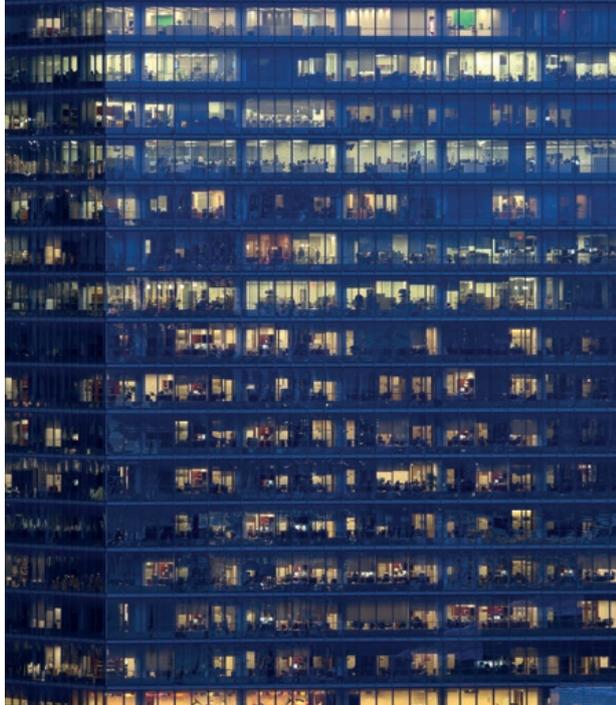
I have been a season ticket holder of Liverpool FC since 1977 and fortunate to have witnessed years of success. This year, I was at Anfield to witness the 4-0 miracle against Barca and was also in Madrid for us achieving our sixth Champions League win.

I have been a magistrate on the Conwy bench for the last 10 years and chair both adult and youth courts. I am also a deacon in our local chapel in Ruthin.

As a keen cyclist, I have raised more than £30,000 through various charity rides across Europe over the last four years. However, I am due an operation to repair my cartilage and cruciate ligaments in my left knee after a skiing accident in January. Here's hoping I can be back on the bike soon and back on the slopes in early 2020!



*Huw McKee (left) gets on his bike*



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# Do not fear the AI revolution

By **Nicola Graham**, outgoing Socitm president and head of ICT for Aberdeenshire Council

Society is standing on the threshold of a fourth industrial revolution. Artificial intelligence (AI), in particular, has tremendous potential to change how we all live, work, and communicate. It has the capacity to positively reshape government, education, healthcare and commerce. But it also prompts people to ask whether their jobs will be safe or rendered obsolete by robots.



“As well as celebrating the potential for AI, it’s vitally important we also look at the challenges it presents.”

*Nicola Graham, Socitm  
and Aberdeenshire Council*

AI has particular potential to vastly improve place-based outcomes for service users. However, at a time when people are concerned about the impact on their livelihoods, about data misuse and privacy breaches, striking a balance between service improvement and risk requires a flexible approach grounded firmly in ethical conduct.

## The only way is ethics

As Socitm president, one of my main priorities has been to address some of the challenges I see about the ethical use of AI. How can we make the best use of tools, such as data analytics, automation and augmentation, to create a more effective public services workforce? Could AI algorithms potentially discriminate against particular groups? How do machines affect our behaviour and interaction?

The ethical implications of emerging technologies and data is one of Socitm’s key policy themes. Although it’s early days, some councils are starting to trial and use AI for discrete functions and services. In 2016 Enfield Council became a pioneer in the adoption of cognitive technology by implementing Amelia, a sophisticated service agent chatbot. Demand for services is growing and each month the council receives 100,000 visits to its website and 55,000 telephone calls.

Amelia is able to absorb time-intensive routine requests, freeing up staff resources for more complex tasks and helping to deliver more with existing resources. In order to balance these added efficiencies with the need to maintain good customer service, Enfield has aimed to make Amelia ‘people-literate’ rather than demanding service users are technology literate. In fact, there’s a hope that callers won’t notice they’re not speaking to a person because Amelia’s personality and social skills are based on natural language processing.

But, as well as celebrating the potential for AI, it’s vitally important we also look at the challenges it presents. Despite the positives with Enfield’s use of cognitive technology,

the full implementation of Amelia has been delayed by complexities revealed by the pilot process and it’s substantially behind schedule.

## Empowering leadership and decision-making

My ongoing discussion with AI thought-leaders and the wider sector strongly suggests that a lack of clarity is a constraint to embarking on this journey for many. Without further debate and collaboration there are pivotal questions that, unanswered, are hampering immediate progress. For example, should we be trying to come up with codes of ethics and checklists? The most appropriate way forward is to empower public sector professionals to make the right decisions in support of outcomes pivotal to people in their localities.

What is clear to me is that the public sector and members of the technology community should support both the healthy use of data and technologies and take a lead in explaining the risks behind not implementing technology. Positive experiences and case studies should be used to counter negativity and build more trust in councils, their partner organisations and the people who work for them. Engendering this trust should be based on discussion, collaboration and shared best practice within the sector.

## Read more

This is an edited version of an article for **Local Government Chronicle**, available at: <https://bit.ly/2HGHGZZ>

# Socitm discusses Sweden's narrowing tech gender gap



Image of Almedalen Valley in Visby, Gotland: Martin Ferguson

In May, three Socitm delegates travelled to the island of Gotland in Sweden to deliver a workshop session on leadership, diversity and skills at an event run by Linked Organisation of Local Authority ICT Societies conference (LOLA).

Socitm is a member of LOLA, an international organisation of IT professional associations. The event was held to share best practice and work collaboratively with international counterparts while learning from other organisations' experience.

Martin Ferguson, Nadira Hussain and Sandra Taylor began the session by updating delegates from Belgium, Canada, the Netherlands, New Zealand, Sweden and the USA about the work that Socitm is doing in these areas. The delegates then discussed initiatives and efforts being undertaken in their own countries.

Incoming president Sandra Taylor, who champions policy in this area, exchanged views on a topics including how we can we encourage girls and young women into technology jobs, particularly moving towards leadership.

In Swedish municipalities the rate of women in leading positions linked to digitisation is increasing. The Socitm representatives were keen to learn about the changing practices adopted in Sweden over the last 20 years, which have resulted in a dramatic reduction in the sector gender gap.

Nadira Hussain said: "Lola was born out of an understanding that by working collectively and collaboratively, common benefits could be achieved for public sector organisations, their members and the citizens they serve globally. This is a view that Socitm supports wholly

on a local, national and international level. The workshop really brought this philosophy into focus and highlighted the huge possibilities our Lola membership creates.

She added: "In terms of gender equality alone, Sweden is so much further ahead than the UK. It was fascinating to hear about the strategies deployed to promote and protect the roles of women in IT, including equitable salaries, shared parental leave and the right to more flexible working. This sharing at international level opens up real prospects for us to achieve better outcomes for everyone and mirrors the sharing ethos at the heart of Socitm."

Read more

LOLA: <https://bit.ly/2VSMST>

# Events diary

The map shows upcoming events and Socitm regional meetings – fantastic networking and learning opportunities that form one part of the Socitm membership package.

Booking and further information:  
[share.socitm.net](http://share.socitm.net)



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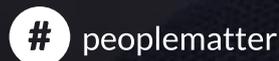
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