

News story: Dstl's first virtual reality collaboration is a success

The Defence Science and Technology Laboratory (Dstl) has held its first-ever virtual reality (VR) collaboration – with staff based at different Dstl sites meeting in cyber-space to collaborate on building a virtual aircraft engine. This first trial was a success, leaving the way open for more virtual meetings, including supporting training for a wide range of law enforcement and defence agencies.

If there's a major incident or humanitarian crisis anywhere in the world, the police agencies and the military could come together in a safe VR environment to prepare for the challenges they will face before they arrive on-site. The technology can also support training together from remote locations.

This virtual collaboration can take place between multiple sites, without anyone ever leaving their office, and can be done over secure lines, allowing sensitive scenarios to be used.

Participating in this first trial, a Dstl tester said:

I was standing in a warehouse and could see a table with items. I could move over to it by clicking on the hand controller. Suddenly, I'm near some engine parts, part of an aeroplane on a bench. It's hyper-real and totally immersive.

The VR headset and hand controllers allow people to interact, talk to each other, point at and pick up items, and even fist-bump at the end of a successful meeting.

Mike Ferguson, from Immersive Technologies at Dstl, said:

This is the first time this has been done at Dstl. We've identified a technology to do it, which presents huge opportunities for shared training, meeting and even new design work.

Collaborating in a virtual volumetric space, using the latest VR technology, is very new. We've tried other systems, but this is the first VR system that we've found which is really effective. It's still evolving; in the future we'll be in a virtual space as ourselves and be able to see lifelike avatars. It's connecting with people. It's making the world smaller.

For us, we're really interested in how we can develop the

technology to support our customers to train more smartly, efficiently and effectively in the future. We learn by doing – enhancing muscle memory. By actually doing it, it helps you to perform better. With ever-increasing demands on our Policing and Defence colleagues, finding the time for quality training is becoming a challenge. We think we can alleviate some of the burden through use of this technology.

Using Augmented Reality (AR) and VR – Doctors could one day to operate remotely, connected to surgical equipment at other locations.

In response to a terrorism incident anywhere in the world, the UK could help using remote 360 degree cameras, virtually placing an expert on the scene who can assess forensic opportunities or advise on an unusual explosive device.

Press release: Radical shake-up of advice to pension schemes will benefit savers and boost £1.6 trillion pension assets

Opening up the market for financial advice services used by pension schemes will help trustees get better value for money, boost members' retirement funds and reduce employers' shortfalls, according to ministers.

A Competition and Markets Authority (CMA) probe into investment strategy advice accessed by pension schemes found trustees were often denied clear information which would help them when weighing up options – hitting retirement incomes.

Now the government is acting to:

- improve competition in financial advice services used by trustees of both defined contribution (used by the majority of pension savers) and defined benefit pension schemes
- ensure better disclosure of fees and performance
- encourage closer trustee engagement when buying such services
- enable more effective monitoring of compliance by The Pensions Regulator

Guy Opperman, Minister for Pensions and Financial Inclusion – welcoming the CMA's findings – said:

Changes we are proposing will have a positive impact on millions of

people's pension pots.

The market sometimes restricts trustees' ability to find the best value for money, meaning that defined benefit schemes are less affordable and more difficult to fund while defined contribution schemes face higher costs and reduced returns for members.

We want trustees to be better equipped and engaged when accessing services which have a huge influence on decisions affecting how much their members will have to live on in retirement.

The Department for Work and Pensions plans to consult on proposals later this year.

Media enquiries for this press release – 020 3267 5120

Follow DWP on:

[Press release: Significant savings thanks to new pump technology](#)

The investment has been made in both new pump controls and new pumps at its mine water treatment schemes and pumping stations in an effort to reduce the amount of money the organisation spends on its electricity bill.

Contracts Service Manager at the Coal Authority, Chris Crowe, said that it currently spends in the region of £2.4 million each year. He said: "Energy suppliers are also changing the way the way their tariffs are charged, which also has an impact on the cost to us. So, anything we can do to offset that cost by making savings can only be a benefit.

"Together with our partners J N Bentley, Severn Trent Services and the supply chain, we have now developed a standard specification for motor control centres – MCC's – which are fundamental to how we move pumped water around our mine water treatment schemes and subsidence pumping stations. They control the pumps and the way we maintain the water levels at our 48 pumping stations.

"Last year we conducted a review of the motor control centres and pumping assets and developed a programme for the replacement and introduction of the new standard motor control centres.

"The capital spend to date on new pumps and panels alone is in the region of £1,700,000 but we expect this will result in significant energy savings over a year. In addition, the new standard MCC's not only bring many financial benefits in cost certainty within the supply chain, but also faster product

design and operational benefits thanks to their improved resilience and standard layouts.

“We incorporated the innovative ABB variable speed drives with their intelligent control. This enabled us to do away with complex programmable logic controllers and other systems that were neither functioning nor providing adequate control.”

The new panels have the ability to simplify the pumping processes and motor control while ensuring effortless energy efficiency. A variable speed drive, which controls the output, can reduce energy consumption by as much as 60%. For a 132 kilowatt motor on continuous duty, this can mean a saving of over £27,000 per year. This is because the variable speed drive reduces the amount of energy drawn by the motor.

[Speech: HMCI commentary on knife crime](#)

This is a timely report for Ofsted to be publishing. The related issues of knife crime, gang violence and child exploitation are rightly high on public and political agendas. The images of those recently killed with knives on the front pages of newspapers remind us all of the tragic cost of violence being paid by our children. Our first thought is of course with the victims' families.

In a previous report, we highlighted the [dangers of county lines drug operations](#), in which criminal and manipulative adults exploit children to travel from our major cities to all corners of the UK to distribute drugs, often leaving those children vulnerable to further physical and sexual abuse far from home. This is important context for this study.

This report looks specifically at school leaders' experiences of knife crime in London, as well as the views of children and some parents of both victims and perpetrators. It makes recommendations for school and college leaders, local authorities, the police and other pan-London agencies about how to work better together to help keep children safe.

Use of exclusions

The most hotly contested issue when it comes to schools' responses to knife crime is the use of exclusions. This study did not set out to prove or disprove whether exclusions lead to knife crime – a task that is beyond the realm of the possible. There is evidence that points to a correlation between the 2, but of course this does not prove causation. It seems just as likely that exclusions and knife crime are 2 symptoms of the same underlying problems, exacerbated by cuts to local authority children's services.

There is a harmful narrative developing that exclusions must cause children

to join gangs or carry knives because, when they are excluded, they are put in very poor-quality alternative provision (AP) or pupil referral units (PRUs), and eventually fall out of the school system altogether. In fact, over 80% of state-funded registered AP and PRUs are rated good or outstanding by my inspectors and, of those pupils not on a state school roll at age 16, few get there directly via exclusion from a mainstream school. See [‘The link between exclusions, alternative provision and off-rolling’](#).

What’s much more concerning is off-rolling or managed moves to unregistered or illegal AP or to no education, employment or training at all. We do not know whether children in these settings are safe, let alone being educated.

That isn’t to say permanent exclusions are never beyond criticism. What we found through our research is that exclusion decisions in cases of children bringing a bladed object into school do not always sufficiently take into account the best interests of the child, which have to be balanced against the wider needs of the school community. By law, headteachers should take contributory factors into account, consider intervention to address the underlying causes, and consider providing extra support to groups of pupils with high rates of exclusion, before they take the decision to exclude.

Similarly, we found that schools’ decisions about whether or not to involve the police in an incident can be based on a variety of factors, not always relevant. It seems sensible to reflect on whether the child has any known connection to adults with a criminal history, but it is much less relevant to consider, as some schools told us they did, the child’s academic record. Headteachers clearly need more in the way of information and guidance.

Permanent exclusions have risen in the last few years, and there is a shortage of registered provision for excluded children. Schools and local authorities need to work together to improve education and other preventative work, to reduce the need for exclusions. Exclusions are a necessary and important sanction, but it is not acceptable, or legal, to exclude without due regard for the impact on and risks to the child being excluded.

Working together to keep children safe

Schools have 2 very basic roles: to educate children with the powerful knowledge they need to thrive in and be connected to society; and to keep them safe. Doing the first well can be the best possible preventative experience when it comes to the second. Feeling a failure at school can lead to behavioural problems that may ultimately escalate into criminality. We know that nearly half of those who end up in prison have literacy skills no better than an average 11-year-old, so it is vital that primary schools prioritise teaching children to read at an early age. Children who cannot read well cannot access further learning, cannot discover their own unique interests and talents, and eventually will struggle to pass exams and get good jobs.

However, our report focuses on activities specifically designed to achieve the second basic role – to keep children safe. Some school leaders feel that they are having to act alone to develop a response to rising rates of knife

crime. We know that the best response is a multi-agency approach and good, timely information-sharing, but too often this is not happening.

Spending per head on early help and preventative services has fallen by over 60% in real terms between financial years 2009 to 2010 and 2016 to 2017. Some of the funding that is available is only short term. Schools simply do not have the ability to counter the deep-seated societal problems behind the rise in knife crime. Some schools are valiantly trying to fund school-based early help services or other services that were once provided for free. But we cannot allow responsibility for this to be landed on schools in the absence of properly-funded local services.

There are other ways in which schools and local agencies can help each other. Too often, concerns about data protection get in the way of vital information sharing. GDPR allows agencies to store and share information for safeguarding purposes, including that which is sensitive and personal. If schools have information about children, or adults, relevant to the safety of them or of the children around them, they need to pass that on, including at transition points such as primary to secondary school, or school to college. And they need to share it with local authorities and the police. The arrangement needs to be reciprocated.

Educating about knife crime and gangs

Many school and college leaders we spoke to were trying to educate children about the dangers of knife crime and the risks of grooming and exploitation by gangs. However some are concerned that if they do this they will be seen as a 'problem school', and subsequently avoided by parents. Others were rightly prepared to be open with pupils and parents about the issues and how to deal with them.

As well as educating children, schools and others can play a vital role in educating parents. The parents of both victims and perpetrators that we spoke to were unanimous in their call for policy makers and local leaders to talk more to parents about grooming, criminal exploitation and knife crime. These parents could sense that something was wrong with their children, but did not have the knowledge to link that to criminal exploitation and therefore do something about it. Instead, and tragically, they thought their children's increasingly challenging behaviour was due to their own divorce or even, in one case, suspecting their child was being sexually abused.

Conclusion

I hope this report is a valuable input into the current discussions about how to tackle knife crime in London and other UK cities. This is too serious and complex an issue to reduce to binary debates about exclusions, or over-simplified views about the quality of AP or PRUs. Schools can and should play their part, and many are. But this has to be as part of a broader coalition, with the support of local partners and the police.

News story: 'Delay Repay 15' secured for GWR passengers

- improved compensation for delays and cancellations set to launch in spring, benefitting passengers with single, return and weekly tickets
- monthly and longer season ticket holders to remain on current compensation scheme for time being

Great Western Railway (GWR) passengers will soon be able to benefit from improved compensation for delays, Rail Minister Andrew Jones announced today (12 March 2019).

The launch of Delay Repay 15 (DR15) on the franchise, due on 1 April (2019), will enable passengers holding single, return or weekly tickets to claim money back for when services are cancelled or their journey is delayed by 15 minutes or more, whatever the cause.

Currently, services need to be delayed by at least 30 minutes on Great Western Railway services for compensation to be paid. However, DR15, which is being rolled out across the country, will allow passengers to claim back compensation worth 25% of the single fare for delays of between 15 and 29 minutes to their journey.

Monthly and longer season ticket holders will remain on their existing compensation scheme for the time being as this provides compensation through season ticket discounts.

Rail Minister Andrew Jones said:

Reliability is our top priority but it is right that when things go wrong, people are compensated fairly and quickly.

Now, with the launch of DR15 on GWR, even more passengers will be entitled to claim if their services are delayed.

Passengers on GWR make an estimated 105 million journeys every year. This announcement coincides with the biggest upgrade of the Great Western route since Brunel started work on the line more than 175 years ago.

More than £5 billion is being invested in the Great Western route – including £2.8 billion on electrification – to deliver better services and new trains with thousands more seats.

Mark Hopwood, Managing Director at GWR, said:

We do all we can to get people to their destinations on time, but when things do go wrong customers need to trust in a fair system that easily compensates them for the delay.

The introduction of Delay Repay is just that, and has been a key aspiration of GWR for some time. Alongside the introduction of new trains, and modernised infrastructure, I am delighted that we are able to continue to make the improvements we know our passengers want to see.