

### **JOIN NAACE**

Join our community of educators, thought leaders and curriculum experts who are committed to supporting the effective use of education technology within schools.

Becoming a member allows you to create connections with other members, grow your knowledge base and find out about ways to save you (and your school) valuable time and money.

Together, Naace members are transforming the way in which teaching and learning is delivered and supported with technology.

As a member you'll have access to the latest journals\* and research papers, as well as our newly revised Self- Review Framework to help you determine how effectively you're implementing educational technology throughout your setting.

Choose from a range of membership options to suit you – come and join the re-Naace-ance! Contact membership@naace.org.uk

\*Are you a Library or University looking to get access to the Advancing Education Journal? Contact membership@naace.org.uk and we'll get back to you with further information.







### THE EDUCATION TECHNOLOGY ASSOCIATION



A summary insight into the **Advancing Education Journal from Naace.** 

A mix of academic and thought leadership pieces relating to technology in education available to Naace Members











# **Policy**

The impact of communism on the history of computer development in Czechoslovakia during the Communist occupation from 1945 - 1989.

Dr Bozena Mannova, Czech Technical University in Prague

Moving Human Intelligence Forward with AI

Professor Rose Luckin, Institute of Education, UCL

Edtech, CPD and the Absence of Transformation

Bernard Dady - Education & Technology Consultant

Protecting our professional knowledge: sharing resources internationally using digital tools

Professors Marilyn Leask, Christina Preston, and Sarah Younie with Jon Audain and Richard Proctor - Members of MirandaNet Fellowship, TPEA and MESH guides

#### **Practice**

Literally stepping through algorithms: visualising algorithms with sorting networks

Dr Helen Caldwell, University of Northampton

Practical advice for schools considering implementing video-enhanced observation

Dr Elizabeth Hidson, University of Sunderland

The Power of Song in Learning

Ian Rae

**Conference reports** 

**Recommended conferences** 







I have been a member of Naace since the late 1980s because I believe that the advice of edtech professionals, working together, can provide our profession, companies and governments with well established knowledge and experience about teaching and learning.

Being part of an expert community has been valuable for me and provides valuable professional development for other Naace members: school leaders, staff

trainers, advisers and teachers who share an interest in education technology (EdTech). This professional learning is a symbiotic process where knowledge and expertise are braided into the history of Naace. In the research world the term is 'community of practice'.

One way of discovering Naace members' enthusiasms over the years is to delve into the archive of the Advancing Education Journal that comes out twice a year. As the current editor I commission articles about policy and classroom practice over a six month period based on members' concerns and interests. Other authors volunteer to provide insights into topics of immediate concern like the political concerns of our members as well as innovative classroom ideas and effective methods of teaching teachers about Computing in the curriculum.

The Journal also represents the thinking of the profession on all three strands of Information and Communication Technology across the curriculum in schools. These subjects can be grouped using the metaphor of the car:

Under the bonnet: Computing Science;

Driving the car: Information Technology;

Understanding the Power of the Car: Digital Literacy and Digital Safety.

But it is always best to meet our colleagues face to face, if we can, so I also collate a list of the events that will most appeal to our diverse membership. I've picked out in this booklet a selection of extracts from our latest edition so that you can see the range of members' interests in one six month period.

I will be delighted to accept articles that are relevant and to hear about any events that you recommend. Do contact me with your ideas because this is your journal.

Dr Christina Preston, Associate Professor of Education, Naace BOM.











# **Policy & Practice:**

Protecting our professional knowledge: sharing resources internationally using digital tools

Naace is an important force for improvement in the subject and an important partner in lobbying for the attention of government. In this context, a group of colleagues from the MirandaNet Fellowship, the Technology Pedagogy and Education Association and MESHguides draw the attention of Naace to the vulnerability of resources stored on government websites, as they are so easily taken down by the incoming governments for reasons of cost or policy.

Across the world and the centuries this kind of destruction of previous theory and practice published in books is well known, but now governments can 'burn the books' without the smell. Teachers then found changes of government meant resources were taken offline. Colleagues in Sweden and Scotland have reported similar actions.

Not only is this a significant waste of government funds but curricula were built around the resources, and not just in the originating countries. South African colleagues reported that UK government-funded National Curriculum resources they were using vanished overnight with no warning. A lesson for the education sector is that where governments want resources developed the resulting resources need to be protected from destruction. The authors, Naace members to join the campaign.

#### Edtech, CPD and the Absence of Transformation

Bernard Dady, an Education & Technology Consultant reports a bizarre situation in UK schools as we approach the year 2020. Firstly, he suggests with surprise that schooling in the UK is still dominated by mid-twentieth century pedagogy. Secondly, our government is still questioning the return on investment in education technology (EdTech) both in respect of its level of use and impact on learning in schools. He contrasts these statements with the observation that outside of schooling, digital technology is utterly transformative and that its impact on learners is growing exponentially.

In his article he puts some pieces of the 'jigsaw' on the table and explores how they might fit together to provide a solution to this conundrum.

## **Excerpts from the Naace Journal**

Practical advice for schools considering implementing video-enhanced observation

Dr Elizabeth Hidson, University of Sunderland, provides practical advice for schools considering implementing video-enhanced observation. Naace members who are using video-enhanced observation of lessons will be interested to know that research from Elizabeth Hidson, carried out at Newcastle University, indicates that this approach can be very effective in improving practice. But she is clear that it should be introduced strategically so that there is no suspicion of surveillance amongst the staff, and with due regard to data protection and security. This research was funded by the European Union.





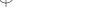












### **Policy & Practice:**

### How history and politics impact on EdTech

Digital technologies are a global phenomenon so we like to publish communications from our international members and friends. Dr Bozena Mannova, Czech Technical University, remembers her first Naace conference in 1997 in Brighton. Keen to see what was happening in Western Europe after the 'wall' came down in 1989, she describes her experiences below:

"We do not have any coast in the Czech Republic so despite the rain and the wind I remember standing at the edge of the Brighton sea outside the hotel and marvelling at the height of the waves.

I had been attending as many conferences as I could in Western Europe because, as a computer scientist, I knew that we were far behind. I also knew that in England there were many women in education technology. In my Computer Engineering department at the Czech Technical University in Prague I was one of only two women in a department of ninety men. In this context I heard Professor Christina Preston, speak about Digital Literacy. We have been sharing theory and practice ever since, as in communist times Digital Literacy was not on the syllabus.

In particular, my contacts with members of the UK professional organisations, Naace and the MirandaNet Fellowship, often funded by the European Union, have been very important in another role which was working on the syllabus for teaching IT in Czech High schools with the government, as well as the practical teaching of Computer Science in Arabska School, Prague 6. I was interested in the British approach in the ICT curriculum, and I was active in raising teachers' awareness of the value of Computer Science in the UK in the 1990s when a national professional development programme was introduced for all teachers in England and Wales -1999-2003.

Naace members have an interest in the history of computers and, indeed, many have lived through the introduction of major developments. So, in my article I describe the history of computer technology in Czechoslovakia in the years 1945 -1989, This history is also interesting as a precursor to the Czech membership of the European Union in 2004. We have benefitted hugely from this co-operation and are very sad at the proposed withdrawal of the UK."

## **Excerpts from the Naace Journal**

Literally stepping through algorithms: visualising algorithms with sorting networks

Dr Helen Caldwell and Dr Neil Smith, University of Northampton, quote from their book about algorithms and algorithmic thinking that are, as she explains, central to learning about computing. However, she knows that, unfortunately, an algorithm, as a thing itself, can be rather abstract; it can be difficult for students to understand what the algorithm is doing and how the execution of the algorithm leads to the desired end result. She offers some strategies to help students see how an algorithm works on a particular problem.

#### Moving Human Intelligence Forward with AI

Professor Rose Luckin, Institute of Education, UCL, traces the development of Artificial Intelligence (AI) from when the concept emerged in 1956. As she explains, Al is already having a big impact and many are predicting the various ways in which the robots will take over the world. Drawing lessons from history and looking at the current state of play she suggests a new model of intelligence for educators that focuses on the importance of being human.

### The power of Song in Learning

A joyful piece from Ian Rae, a teacher in early years and musician, about how his free resources draw on the power of song in learning. We know that music, poetry and memory are very closely related. On the internet there are numerous examples of research into how music can greatly accelerate the learning process in languages and, in fact, retention. In some experiments using learning through songs has been twice as effective as learning "by rote". So Ian has designed some resources for younger pupils that make learning facts fruitful and fun.









