Synchronous interactions

The text below is the result of discussions which took place in the Cloudlearn group during the Summer Term 2011.

The world in which our students are growing up in is very different to the one we inhabited years ago. We coped without mobile phones, PCs, the internet.

Technology is advancing and developing at a phenomenal rate and if you ask any of your pupils if they can imagine life without their trusty Nokia or Google they'll come out in a cold sweat. The trick is to get them using these gadgets for the good of their education and to prepare them for life after school where they'll be competing for jobs or business on a global scale. These days for teachers and pupils to work collaboratively with others we aren't limited to other students in the same corridor, school or even county. With just the click of a button they can travel and connect to the other side of the planet in a second.

There are plenty of easy ways to open your classroom door to the outside world and encourage students to become global citizens. They don't have to be huge projects that take months for you to set up and organise and then carry out, the simplest are often the most effective. The easiest method is simply by using an internet connection and a basic webcam which most laptops have built-in these days. Being open to synchronous interactions can make a significant impact on the quality of learning that happens in your classroom. Sign up to Skype or Windows Live Messenger as a class and you can connect to classrooms the world over at the touch of a button. I have been using this type of video conferencing in lessons for some time now and have found it a great way to inspire students and bring a subject to life.

These are fantastic tools to use because they are free, simple to use and even if you don't know how to use them I'm sure your students will. Many teachers I know use Skype to fly in so-called 'experts' in their field for students to ask questions to. For example a science class working on a forensic science assignment could ask specific questions to a real life forensic scientist.

In the last year teachers have carried out numerous international projects that have had a huge impact on the learning of students and the professional development of our teachers. For example when football fever gripped the nation during the World Cup in South Africa earlier this year some schools used the event to learn more about countries around the world – and got to see what children elsewhere thought about this country! 50 schools in 11 countries took part in this project. In small teams pupils picked a nation represented in the competition and used the internet to research its history, culture, geography, cuisine and anything else that interested them. They then packaged this up into an entertaining 3-5 minute multi-media presentation and posted them on YouTube for all to see. Some students learned National Anthems, others how to cook a typical meal and even how to perform a traditional dance. At the end of the project the schools used Twitcam & Skype (See Specific case studies below) to link up live to partner schools around the world and watch the presentations. Students even took live questions from other viewers on Twitter.

Another effective global project took place in conjunction with schools in Indonesia, China, Canada, Ireland and Nigeria. A group of teachers created their own collaborative project called 'A Picture Tells A Thousand Words' which saw pupils in each country telling each other about local heroes as a way of learning about their

respective countries and cultures. Children produced a 'photostory' of their hero and shared it with their counterparts around the globe. The project allowed the children to identify the attributes and qualities that are necessary for you to be successful in life no matter where you live. The project really came to life when students spoke of their experiences of working with children from other cultures at a teaching conference in Indonesia. Using video conferencing facilities at the students saw the Indonesian children they'd been in contact with and communicated with them directly. This conference was picked up by one of Indonesia's main television broadcasters and aired to 30 million viewers.

The positive outcome of these projects is evident from the comments made by students and teachers involved. Teachers told us how they were impressed with how focused the children were on their work and how they themselves found linking up with other schools inspiring.

This from two different teachers:

"It has truly inspired me to try to collaborate more with other teachers globally. It really does invigorate you and your teaching. It is a great experience for all involved."

"By doing a project on this scale, it has ensured that links are made with these schools and that means that other projects can be done in the future. I feel that I have learnt a lot, both about the countries and different cultures as well as the difference in the education systems of the partner schools."

Students enjoyed collaborating with other children from very diverse backgrounds and the projects have opened their eyes to the world beyond their own small town and villages. Getting to grips with technology that will almost certainly be crucial to their future careers is also beneficial:

"We have learnt lots about other cultures, about other kids around the world and what it is like to live and to go to school where they do. We also learnt about how the technology worked to do the video conference and helped develop our video making skills".

Barriers/Challenges

Fear Factor – Many teachers can see the benefit of using this type of technology but are afraid of the technology not working and looking silly in front of their class. They are also worried that if it gets misused in any way that they will be to blame and are worried about getting into trouble at the school or with parents.

Broadband & Bandwith – Some schools just don't have the frameworks for this to happen, perhaps their internet access if not good enough to support some of these applications. This is the case in more rural areas of the UK and also there are several examples of schools in rural India trying to connect via Skype to video conference but really struggling and being held back due to the infrastructure. These tools can also absorb the bandwith within a school and as a result others using the schools internet can then slow down or ultimately stop working. This can be the case in smaller schools and many primary schools have difficulties with this.

Filtering/Blocking – Depending on who provides the internet for a school will ultimately control what is blocked and filtered. Some high level filtering could happen outside a school before it even goes to the school, depending on the service provider depends on whether a school can easily negotiate to have certain

tools and sites ‘unblocked’. This is one of the most common barriers against using these applications.

Security & Safeguarding – There are issues regarding the safety of students and teachers when using these types of tools. There is a risk with using them however with the correct safety frameworks in place then any risks can be minimized. Schools need to develop robust and effective E-safety policies which are clear and are constructed and abided by all the stakeholders involved and are used in an acceptable way.

Leadership – (headteachers/governing body/local authority) – The use of these tools needs to be supported by the leadership at the school. School leaders need to encourage their teachers and students to use these tools and provide them with the clear protocols and policies in using them as well as allowing teachers to share good practice as part of their effective continuous professional development. Any school leaders against the use of these tools for whatever reason makes it extremely difficult for individual or groups of teachers to use them effectively.

Pressure from Parents & Community – Due to the media hype regarding the use of these tools and the ‘horror stories’ of the misuse of this technology, parents and the local community can be a barrier in the use of them. Schools need to educate parents how these tools can be used safely and effectively to enhance the learning of the students. This is a great opportunity to engage parents and the community in collaborating in the use of these tools.

Case Studies for Specific Free tools for Synchronous Interactions in classrooms:

1. **Windows Live Messenger**

"I first got the idea for this following the European innovative teachers' forum in Croatia in March 2008. Since 2008 I have been using Messenger on and off to give feedback to students"

Some of the quotes can be seen below on the impact that it has made on the students using it:

"It helped me quite a lot, because I was able to discuss with him what I should and shouldn't do when doing my podcast, how to format it, and how to present it in a way that is easy to use."

"Helpful when he was online, good to have the support there. It was great to be able to ask him when you hit a problem!"

"I could talk to my teacher and other students in the class to discuss my video or podcast"

The students also suggested the following uses:
"It could be used as a revision aid to help students near their exams."
"It could evolve to perhaps all areas of the curriculum and that way, all students will benefit in their subjects."
"I would recommend this to others, because it gives the students to talk to their teachers and other members of their class, and they are all able to assist one another."

There are obviously implications for online safety for both the students and the teacher. There are ways round this to ensure that you record the conversations. I recorded them and students were encouraged to record them too. They found this useful because they could then read back the conversation like a script and they used it for reference when they got stuck."

2. **Skype**

Safeguards are built into the privacy settings which can make it suitable for classroom use.

There is a website called Sykpe in the classroom which currently has over 12,500 teachers signed up each with their own profile, there are 550 projects and 475 resources being shared. http://education.skype.com

Case Study A: Post 16 Further Education, UK

"Earlier this year I used skype with my graphics students to get a graphic designers to talk to them in my classroom. In previous years we had funding for real visitors but this year we did not have that funding available so we had to improvise. I suggested skype and the designers I approached were happy to oblige- especially as they only needed to find a small slot of time within their day (no traveling time involved or cost). I would definitely approach people to do this again as the impact further reaching than our usual 1 visitor as we had 4 different visitors and the students seemed happier and far more confident to ask questions. With our final visitor we used google chat/video and this worked just as well too. This does not replace the need for real visitors but it has definitely helped this year when we could not afford to pay for them."

Case Study B: Primary School, USA.

"I use Skype in my first and second grade classes to connect to children and classes all over the world. We Skyped several times with a class in New Hampshire to compare the places where we live. We Skyped with friends in a school in Beirut that we had been corresponding with for a year and a half. It was too early in the morning to Skype with students in Australia, but their teacher got up early one morning to talk to us. We had exchanged travel buddy animals and she told my students about their adventures at her house and answered their questions about Australian animals. Before the last Winter Olympics we Skyped with students from the middle school in our town. The older children taught my students about the Olympic events. My students, then first graders, were inspired to write about their own favourite winter activity. We then Skyped the older children back and they listened to us read our stories. One of my favourite uses was for a project this past year. My students all invited grandparents or great grandparents to class to be interviewed about their childhood. Some of the grandparents lived too far away to come to class so we used Skype to connect with them for the interviews!"

3. **Flashmeeting – http://flasmeeting.e2bn.net :**

This is an Open University project (http://flashmeeting.open.ac.uk/home.html), running various servers under the umbrella flashmeeting name. Currently the European Association of Technology Enhanced Learning, the Open University, the OpenLearn development community and the East of England Broadband Network have their own sub-projects.

A group of MFL teachers in the UK have used the system for regular webconferences. Here's the link to the most recent one's "rerun" (a very useful feature, if you miss one!): http://flashmeeting.e2bn.net/fm/0527da-13302

Flashmeeting allows for up to 25 participants to contribute via webcam (video and/ or audio) as well as incorporating chat, polling and various other functions.

4. **Google chat – http://www.google.co.uk/talk/intl/en-GB :**

Case Study, Secondary Schools in India

"We have been working on a virtual class project for the last two years and have achieved some good results. This project is based on video conferencing using google chat and was started for sharing services of expert teachers at different schools. More than 20 schools in my area have been connected with us through this project so far and we are using very efficiently the resources of one other. Both students and teachers are showing good practice and interest in these classes. Although there are not much rich ICT infrastructures in my area, these classes are being run successfully.The project enables a teacher of a particular school to have expertise in any subject, and others can give their services to the other schools in the cluster. This scheme is also useful for schools which are facing a problem of the shortage of teachers."

5. **Adobe Connect – http://www.adobe.com/adobeconnect.html**

Case Study – Primary School - Canada

"We wanted to allow teachers to co-plan and co-teach math classes this year (a trio in primary, a trio in junior and one in intermediate). What we found worked really well using Adobe connect and the videoconferencing were things like to teach a student in each group/adobe connect room to be the facilitator, allowing things to go more smoothly. We found that it was useful to limit the length of the video conferences depending on the age of the students taking part to reflect their attention span, it was also useful to break (mute) periodically for minds on and to allow students to complete the active work in their own classroom and then come back together to share via the videoconference.

The main outcome of our project was that it produced some really creative, authentic tasks through the collaboration amongst the teachers which would never have had the opportunity to happen. The engagement of students in math in general increased in all of the classes participating.

We are planning to continue with this project and to expand it next year. We have two ICT Consultants for a board of 105 schools, so is tough and difficult to visit all the 105 schools. Next year we will use this year's participants to be coaches to go out and support other groups from other schools that are starting the same thing this will enable us to build capacity."

6. **Elluminate – http://www.elluminate.com/Services/Training/Elluminate_Live!/?id=418**

Case Study: Teacher training provider: UK

"We have used Elluminate with teachers to deliver and carry out online facilitation of teacher training and one of the problems can be the school filtering. Outside of school, when teachers access from home, it mostly works each time. Then it can be an issue of bandwidth. One teacher was presenting and we lost connection - probably because his teenage children were using internet at same time!"

7. **Office Live Meeting – https://www149.livemeeting.com/cc/vcc/join**

Case Study A – Primary School, USA

"When we were studying Dante's Inferno, I used Skype to group chat in class one day to have the class brainstorm to prepare for a creative piece that they were going to write. You can see the details of the project and a sample from the video chat here - http://kellietheredge.schools.officelive.com/Inferno.aspx - the group chat fostered more discussion than I would have gotten if we would have discussed out loud. The quiet students shared ideas and thoughts that they otherwise would not have shared. It was a great warm-up for their writing project. (Note, we used Skype before Skype changed its system and started hoping ip addresses in the middle of the connection; now it doesn't work well with our filter and that is why we started using Live Meeting. Recently our 3rd grade students video chatted with a 3rd grade class in Canada to learn about the similarities and differences between the two areas. You can see some of that chat here - http://spslearningshowcase.schools.officelive.com/Canada.aspx

In addition the 6th graders have recently video chatted with a 5th grade class in Arizona who was studying the consequences of the oil spill. Because we are in Mobile and were impacted by the oil spill, our students were able to provide the 5th graders with first-hand information about the consequences. It was an amazing day!"

Case Study B: Secondary Schools Croatia

"We have been using Live Meeting together as a partnership between teachers from three Croatian schools. Over the past two months we've given a series of more than 13 Live Meeting webinars to high school students from all parts of the country as part of the preparation for their exit exams. Students were able to get all the necessary information on the upcoming school-leaving exams and also ask as many questions as they wanted. The number of attendees shows that this type of e learning is what students want and need. The number of downloads of the webinar recordings over a short period of only two months shows that we have struck the right chord too:
No. of attendees: 998
No. of webinars: 13
No. of presenters and guests: 14
No. of downloads: 2525
The webinars turned out to be a huge success, so that we're now planning the second series of webinars for the next school year - but this time with even more teachers involved.

During the webinars, the only problems that we had were students who were not able to hear or see the presenter or couldn't ask questions on a small number of occasions due to bandwith."

8. **Twitcam -** http://twitcam.livestream.com/

Case Study A – Using Twitcam for the 1st time – Dan Roberts – Saltash.net Community School

"This can be used to stream a live video that automatically tweets your live feed to twitter and while you are broadcasting you can interact with your audience via the page and at the end of your broadcast it then archives it for you and holds it on your profile so people can play it back if they missed it live.

It has a massive potential in education. I can't wait to get back to school in September and start using it!

We broke up from school on Tuesday but because of twitcam I have been into school on Wednesday and today of this week and am planning to go back on Tuesday. Why you ask? Are you mad?

Well on Wednesday morning Alice our large black pig at our small livestock area at Saltash.net gave birth to her second litter of piglets. She had 5 in total. Dave Garland our Deputy Headteacher had just come across twitcam so we decided to give it a go and do a live broadcast just after the birth.
We had a go and the response was amazing we had 30 people or so watching and live tweeting questions from all over the world such as America, Australia, New Zealand and the UK. We did this by just using a Samsung netbook with the built in webcam.

We were really surprised with the video and sound quality – it was excellent. We did have a problem with the archiving function of twitcam as because we were enjoying ourselves too much and we broadcasted for over an hour. The site didn't seem to archive it so we decided future broadcasts would be kept to 30 minutes as we had already tested this out and it seemed to work."

Case Study B – An Amazonian Tribesman comes to Cornwall – Dan Roberts – Saltash.net Community School.

"Friday the 4th December was 'Cool Earth Day' as the students nicknamed it at Saltash.net Community School in Cornwall. In fact it was 'Cool Earth Day' all over the world too especially during the live twitcam session where we found ourselves being watched from as far away as Australia, Brazil and America!

As a school we were extremely lucky to have Javier Drill Bustamente (a real life Amazon tribesman from the Ashaninka Community in Peru who was in Cornwall just about to nip over to talk at the Climate Change conference in Copenhagen to tell us more about his life in the rainforest and how important it is to protect it to help combat climate change) Javier was accompanied by representatives from the Charity Cool Earth and the organisation Ecotribal. I have spoke about these people in previous blog posts about my trip in August to the Amazon to live with the Ashaninka tribe.

And finally the 'big event' was the live twitcam from our main hall. We had over 400 students sat in the hall watching a presentation from our visitors.

You can see this archived on twitcam at http://twitcam.com/7ab8 make sure you fast forward it to at least 35 minutes into the broadcast as the beginning bit is just a test. As you can see from the video students who won some of the competitions we had been running were given their awards including Adam who had written, performed and recorded a song about Cool Earth. Finally Mathew Owen from Cool Earth talked about how protecting the rainforest can help with climate change before handing over to Javier to talk being helped by Dilwyn Jenkins from Ecotribal who translated. Then students had the chance to ask questions and we opened this up to the audience on twitcam.

It was amazing to see around 70 people tuned in at one point from all over the world – many of these were teachers that had a class full of students watching, potentially the audience could have been up to 2000 people which is simply amazing."

POLICIES

Acceptable Use Policy: The purpose of the policy:

New technologies have become integral to the lives of children and young people in today's society, both within schools and in their lives outside. These technologies can stimulate discussion, promote creativity and stimulate awareness of context to promote effective learning. They also allow staff to be more creative and productive in their work. All users have an entitlement to safe internet access at all times.

Rationale:

- That staff and volunteers will be responsible users and stay safe while using the internet and other communications technologies for educational, personal and recreational use.
- That school ICT systems and users are protected from accidental or deliberate misuse that could put the security of the systems and users at risk.
- That staff are protected from potential risk in their use of ICT in their everyday work.
- The school will try to ensure that there is good access to ICT to enhance work and learning opportunities for all. We expect staff and volunteers to agree to be responsible users.

Acceptable Use for Staff with regard to Synchronous Interactions:

I will be professional in my communications and actions when using school ICT systems:

• I will not access, copy, remove or otherwise alter any other user's files, without their express permission.
• I will communicate with others in a professional manner, I will not use aggressive or inappropriate language and I appreciate that others may have different opinions.
• I will ensure that when I take and/or publish images of others I will do so with their permission and in accordance with the school's policy on the use of digital/ video images. I will not use my personal equipment to record these images, unless I have permission to do so. If these images are published electronically it will not be possible to identify subjects unless this has been sanctioned.
• I will not use any chat or social networking sites in school that are on the banned list.
• I will only communicate with learners and parents/carers using official school systems. Any such communication will be professional in tone and manner.
• I will not engage in any on-line activity that may compromise my professional responsibilities.

Acceptable Use for Students with regard to Synchronous Interactions:

I will act as I expect others to act toward me:
- I will respect others' work and property and will not access, copy, remove or otherwise alter any other user's files, without the owner's knowledge and permission.
- I will be polite and responsible when I communicate with others, I will not use strong, aggressive or inappropriate language and I appreciate that others may have different opinions.
- I will not take or distribute images of anyone without their permission