SHAKESPEARE'S BIGGEST CLASSROOM AND THE FUTURE OF ONLINE LEARNING

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ABSTRACT: This paper will look at the future of education in a world where content is increasingly being delivered via the Internet. It proposes that new forms of educational delivery need to be developed that fit the medium, rather than attempting to shoehorn old forms into the online world. It will centre its arguments on a report on Ravensbourne's educational projects with the Royal Shakespeare Company, which began with Tim Crouch's play I, Cinna and have continued with a production of Richard II starring David Tennant, then Henry IV Part 1 and Part 2, and is now evolving into a three-year programme of events.

1. INTRODUCTION

Providing learning with strong levels of interaction and engagement is a challenge that is increasingly important in the current educational environment. School students are immersed in games, social media, and online video during their leisure time, and this can make traditional learning seem even more staid and old fashioned than ever before. Ravensbourne's projects with the RSC have attempted to tackle this issue on a number of levels. This paper aims to present the projects and how they have enhanced both the learning experience for school students, and for the Ravensbourne university students involved in putting the events together.

Ravensbourne's Royal Shakespeare Company video streaming projects blend interactive social media and user-generated content with a traditional piece of theatre, to enhance engagement. The first event, I, Cinna, was broadcast online to over 9,000 secondary schoolchildren on July 2nd, 2012, and Richard II to over 30,000 secondary schoolchildren on November 15th, 2013. Henry IV parts 1 and 2 were presented in June 2014 and further events are planned for 2014, 2015 and 2016. With all these events, viewers are given mechanisms and the opportunity to ask questions about the performances via an online system. These questions are then answered live as part of the event. This follows the trends towards user participation that have dominated the Internet over the last five years, as tracked in Jenkins' seminal Convergence Culture1.

After presenting the RSC examples, this paper will return to the concept of online education in general, comparing the styles of virtual learning system and online content delivery common amongst educational institutions to Internet-native services like Lynda.com and Khan Academy. It will then call for online education to take an approach that treats the Internet as the new medium that it is, and develop new formats and appropriate designs that fit this new medium. Online narratives take a more game-like form, where the outcome has not been written in advance and cannot be definitively predicted until participation has occurred. The Ravensbourne collaborations with the RSC explore how this more direct involvement can be harnessed to improve student engagement.

2.1 FIRST PROJECT: *I, CINNA*

Shakespeare faces a continual battle for relevance in contemporary culture. Whilst academics in the humanities will have no problem explaining in theory how the narrative themes and linguistic tropes of the Bard continue to inform our understanding of current events, more elaborate methods are required to engage young people schooled in the attention-depleted age of social media. With this in mind, the Royal Shakespeare Company has been looking for new ways to present its theatrical performances to a school audience that echoes pupils' everyday experiences more closely.

Ravensbourne was enlisted to assist with this search, thanks to its reputation for nurturing creative young people across

the full range of digital media. Although many of Shakespeare's plays have been shot as films, the Royal Shakespeare Company itself has made relatively few of these. So there was a sense of skipping a generation with the first project, from the millennia-old realm of stage theatre straight to the Internet era, missing out 20th Century film and broadcasting in between. Ravensbourne devised a strategy that would involve far greater participation than the average passive experience of attending a play.

Figure 1: Ravensbourne students shooting the I, Cinna (The Poet) film on location

Although the varying computer technology available to schools meant it wasn't possible to risk some of the more elaborate and cutting-edge ideas that were initially suggested, it was still possible to put together an event that provided a number of key areas where school students could play an active role in proceedings. The event took place on Monday 2nd July 2012, and was based around a film of a play by Tim Crouch, who has produced a series of works that pull out minor characters from Shakespearean plays and tell the story from their perspective. *I, Cinna (The Poet)* focuses on a character from Julius Caesar called Cinna (The Poet), and recounts his struggle with words and their relation to political strife – a key theme in the aftermath of the 2011 UK riots, which had been organised via social media and the BlackBerry Messenger service.

The project delivery brought together the talents of students from a wide range of course backgrounds at Ravensbourne, as well as providing a rich collaboration with the Royal Shakespeare Company, Cisco, educational network provider

Janet, and the London Organising Committee of the Olympic and Paralympic Games (LOCOG), as this project was also part of the 2012 Cultural Olympiad. Ravensbourne students shot and edited the film of the play, using a 4K-resolution RED digital film camera to produce an entirely professional, broadcast-quality piece of video.

Figure 2: BBC presenter Konnie Huq interviews Tim Crouch and Jude Owusu in Ravensbourne's TV studio for I, Cinna

But the event was much more than just a film of a play that school students could watch over the Internet, which would have been a trivial advancement over TV or film alternatives. Entrenched broadcasters see the Internet as merely another delivery system, epitomised by the term "IPTV", and miss what is special about the new medium, often called "the read-write web" by its evangelists[2]. The *I, Cinna (The Poet)* film was embedded into a live studio show hosted by former BBC TV *Blue Peter* presenter Konnie Huq, who chaired a discussion with Tim Crouch, the film's actor Jude Owusu, and popular children's author Malorie Blackman. Ravensbourne students also ran the live TV studio production using Ravensbourne facilities. In order to provide greater levels of participation, during the play the schoolchildren were invited to write their own poems, and the microsite (www.icinna.org.uk, created by Ravensbourne students but no longer publicly accessible) provided a space where these could be uploaded, displayed, and viewed. The microsite also hosted a live instant chat engine, which could be used during the event to send questions to the studio panel for the post-film question and answer session.

Figure 3: The I, Cinna (The Poet) website

The end results speak for themselves on the success of this strategy. Streaming into secondary schools across the UK via Janet's servers, the event was watched by around 9,000 school students and was universally commended by teachers and pupils alike, with hundreds of poems submitted after the event. Minister of Culture Ed Vaizey watched proceedings alongside students at the Phoenix school in Shepherds Bush. His feedback was very positive indeed, and the project was featured in a long article in the London Evening Standard newspaper as well[3].

2.2 SECOND PROJECT: *RICHARD II*

Figure 4: David Tennant as Richard II

The second project Ravensbourne executed with the Royal Shakespeare Company focused on a Royal Shakespeare Company (RSC) performance of *Richard II* starring David Tennant, and took place on 15th November 2013. The event was streamed to over 30,000 secondary and primary school students, in the UK, Australia, the USA and other countries. The *Richard II* performance had been broadcast live to cinemas around the world two days earlier, reportedly

earning the RSC over £1 million. The event took a recording of that performance, provided by the RSC, and embedded it within another live studio event, all delivered via the Web using systems that were heavily customised to fit the target audience of school students.
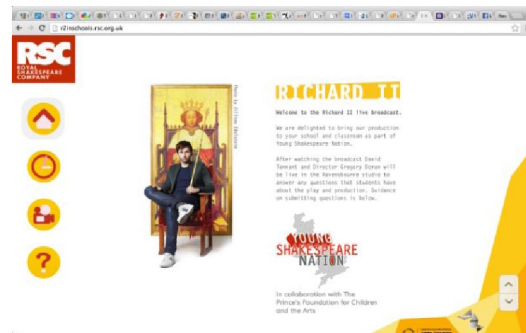

Figure 5: The Richard II website

Again, presenting video in schools is not in itself ground breaking; the innovation and inspiration arose from making the session fully interactive and inclusive whilst ensuring stringent child protection. To provide real engagement after the play, a new system was devised for students to ask questions through their teachers. Meaningful questions from the stream of submissions were selected and put to David Tennant and the RSC's director Gregory Doran, who were sitting in Ravensbourne's TV studio alongside TV presenter Konnie Huq, who was again chairing the discussion. Approved questions were shown on a map, with each school source located geographically. The approved questions were also scrolled along the bottom of the video feed.
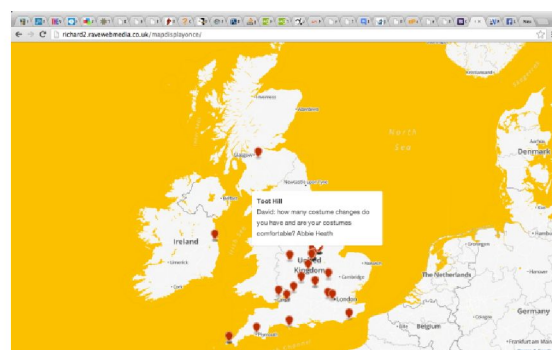

Figure 6: The origin of school student questions were illustrated live on a UK map

As before, the vast majority of the event was produced by Ravensbourne students. Four students from the BA (Hons)

Web Media course designed and created the website (http://r2inschools.rsc.org.uk - now password protected). The students were working to a brief provided by the RSC. As in commercial work, they initially presented three concepts, from which one design was chosen for development. The students replicated standard industry practice by producing iterated wireframes and prototype sites, as well as attending client meetings with the RSC in Stratford-Upon-Avon. Feedback from in-house designers at the RSC was integrated into the site production, again replicating standard industry practice, until the final site design had been agreed upon. The site was a flat, full-width, single-page site that echoed the extremely fashionable "infinite parallax scrolling" genre. It was a commendable example of contemporary web design, visually equal to the best current commercial productions.

Figure 7: Ravensbourne's students work on the Richard II event in Ravensbourne's TV studio control room

A second team of 15 broadcast students ran the studio event and Internet video stream. This team also negotiated a design with the RSC, this time for the set for the live studio portions of the broadcast. They organised full crews on cameras, sound and lighting in the Ravensbourne TV studio, in the vision and sound control rooms, and for the system converting the live video into an Internet video stream. For the school question delivery, existing social media could not be used, because services like Facebook and Twitter are usually blocked in schools. Instead, a customised system

was devised to provide this kind of interaction. One student developed the customised question submission system, which was integrated into the website design, capturing the questions from schools, placing them in a queue for approval or deletion, and with a representative selection forwarded to the studio question and answer session. Web Media students moderated the question stream.

Figure 8: Konnie Huq interviews David Tennant and Gregory Doran in Ravensbourne's TV studio

All these activities mirrored closely the skills taught in the various courses students were enrolled in at Ravensbourne. The BA (Hons) Web Media Production degree is a blend of Web design and social media management, amongst other areas. The project encompassed both factors. Students had to apply their knowledge of User Experience (UX) design, thinking about the target audience (primarily teachers) and their needs when using the Web. In particular, the site was designed with touch-screen whiteboards in mind, whilst mobile devices were downplayed, as the site was primarily aimed at in-class usage during the event rather than general access. This placed it away from the "mobile first" strategy that Web designers are encouraged to apply to general sites, so students were able to see how important the user-centred approach that is taught on the BA (Hons) Web Media Production programme actually is in real design situations. The focus of the design led to the creation of large touch-friendly icons on the left of the site page that persisted as the site scrolled, as well as scroll arrows on the bottom right to make it obvious that scrolling was the navigation method

between sections. Students had to apply the aesthetic design skills they had learnt as well, so the site was visually pleasing and enticing. This element of the design was important for the audience of school students as well as their teachers, so they were engaged by the event and encountered it with expectation and excitement. However, these designs had to be aligned with the strict guidelines of the RSC, which constrained the use of colour and positioning of logos. All of these considerations were coded into the site. The Ravensbourne students also learnt the importance of crediting the individual stakeholder organisations in the project.
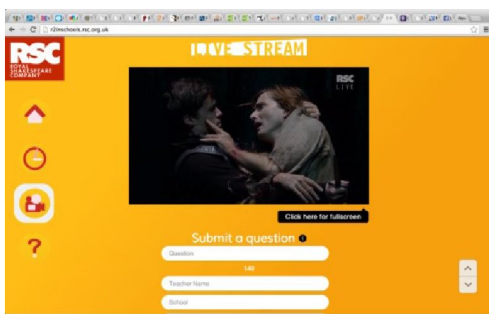
Figure 9: The Richard II website, showing the question submission system

During the event, the BA (Hons) Web Media Production students switched from being Web designers to using the social media management skills they had learned in other parts of their course. This learning had also informed the system implemented for the question and answer system. Child protection is fundamentally important for a service provided to school students, which the BA (Hons) Web Media Production students had learnt about in their course work. They were able to apply this knowledge to this industry project, devising a moderated system that didn't expose participants to a raw question stream. This would protect the children, as well as safeguarding the schools, the RSC and Ravensbourne from a legal standpoint. It is particularly difficult to show the importance of this when teaching, so having a real example played a crucial support role for the academic pedagogy in this area. During the event, the Ravensbourne students applied their knowledge of social media moderation to ensure the questions that were approved met the criteria for child protection, as well as containing appropriate subject matter. From the questions

that were approved at this basic level, key questions were selected for the live studio session with David Tennant, Gregory Doran and Konnie Huq, all delivered in real time during the event.
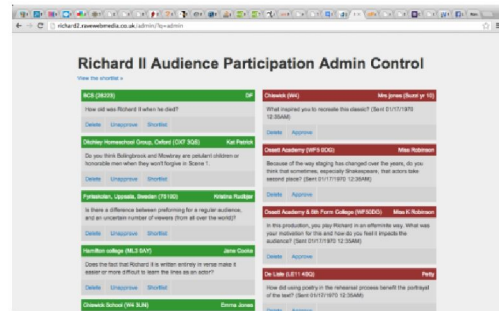

Figure 10: The live question moderation system for Richard II

The BA (Hons) Web Media students were also able to work on their website during class, with the assistance of the tutor. They used the site as a "live" example of design methods to improve the site and increase their own abilities to achieve their learning outcomes. Overall, the BA (Hons) Web Media Production team were able to apply a significant proportion of their course learning to this project, from UX design, to coding, to social media management. This let them try out their skills, whilst reinforcing the validity of course tutoring and project work.

The studio team were equally able to apply their course learning to the event. Ravensbourne has a number of TV-focused courses, and the *Richard II* project allowed most of them to be used. The producer and director were able to exercise their team management on a project that really mattered, with a huge audience for whom failure was not an option. Multiple cameras were used in the studio, giving a number of budding camera operators the opportunity to put their skills into practice. Live sound was key, giving students working in this area a similar opportunity, with lighting also an important consideration. The studio feeds were mixed in Ravensbourne's state-of-the-art control room, where students developing this skill set were able to engage in vision mixing and ensure the quality of the delivery, as well as adding graphics to the feed where necessary. A dedicated team ensured that the video was encoded and delivered to the Internet in a reliable, and high-quality form,

which will be an increasingly important mechanism for TV in the coming decades.

The event was produced in collaboration with the Janet research and educational network system, which provides Internet services for most universities and schools in the UK. Janet, through its subsidiary Streaming Wizard, provided the facility to take the single stream of video leaving Ravensbourne, and transmit that into the hundreds of participating schools. Janet also provided its expertise to ensure that the video stream and other Internet content was accepted by the schools' networks, ensuring all the resources being used were "whitelisted" as being safe. This groundwork for this had been set during the earlier *I, Cinna* event. The Ravensbourne student team monitored this stream and ensured that the video arriving in schools maintained the same quality it enjoyed when it left the Ravensbourne systems. The studio team reinforced their learning about producing a live TV programme, and were able to apply this to a cutting-edge Internet-based delivery scenario.

Running behind the skills-based learning was the deeper academic understanding about the changing face of content delivery in the Internet Age. In both the BA (Hons) Web Media Production course the BA (Hons) Digital TV Production course from which the studio students were mainly drawn, this is a key underlying concept. In BA (Hons) Web Media Production, unit topics focus on the democratisation afforded by Internet content delivery, alongside the greater participation provided by the arrival of social media. The *Richard II* project addressed both areas. It showed how Internet delivery can make high production-value video available at a much lower cost, so that it can be delivered in new contexts for new audiences. It also showed how greater engagement can be built by providing opportunities for the content to be two-way, making it more of a conversation and less of a didactic broadcast.
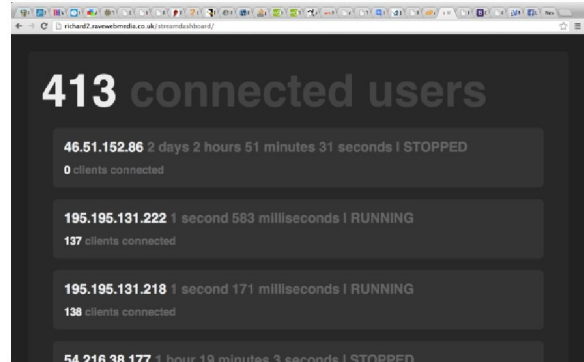

Figure 11: *The servers streaming the video to schools were monitored continually*

The *Richard II* streaming event with its live questions was very successful, with over 400 connected terminals, many serving classrooms of over 50 students and their teachers. Most stayed through the whole four hours of the event, showing their continuing engagement and interest. Over 1,400 questions were sent from school students, which was a phenomenal response. The RSC has calculated that this single event reached more school students than are able to visit Stratford-Upon-Avon to watch Shakespeare in an entire year. As a way to bring 450-year-old works of poetic drama to life for a new generation, the *Richard II* project was an unmitigated success, and had been much anticipated in mainstream media[4].

Figure 12: *School students watching Richard II on their classroom whiteboard*

2.3 PEDAGOGICAL BENEFITS

As a learning experience, the *Richard II* project worked on a number of levels. Firstly, it provided access to Shakespeare

for school students, offering an opportunity and experience many had never had before. One teacher said: "About twenty minutes into the performance, as I looked around at all the wide-eyed, little faces looking up toward the screen, I thought I was going to cry – it was a case of 'if you can't come to us, then we are coming to you' and gave our kids the opportunity to see the RSC for the first time in their lives. Something that I thought would never be possible, became a reality. As one child in Year 3 said, 'Miss, is this for real?' The interview with Greg and David was excellent and let students access the creative heart of the production. Instead of being on the outside looking in, noses pressed against the window pane, the window was opened and we felt like we were in the room – brilliant!"

Many other teachers, who found it reinforced their existing educational curriculum, echoed the sentiment. For example: "I just wanted to say what a fantastic experience the live broadcast was for my 'A' Level Drama students last Friday. They were totally enthralled, despite being certain that they'd hate it as, a) it was a historical play they had never heard of, b) it was in period dress, and c) it was bound to be boring (their words, not mine)." The ability to feed back their own questions was seen as a key element: "The students really enjoyed it and were very excited to have a question answered! It was a great experience for all of us and really opened up their minds to Shakespeare." Similarly, another teacher said: "I would like to thank you for the opportunity you gave our school today. Many of our students have never been to the theatre let alone had access to a live Shakespearean performance, and this morning we had 60 Key Stage 3 pupils spellbound by David Tennant's performance." Overall, the experience was both educational and fun. As another teacher explained: "The broadcast was brilliant! I had 46 Year 9 students off timetable for the day and they thoroughly enjoyed the performance." The event reached well beyond the UK, as well. A teacher in the USA said: "We had 15 kids show up at 2am to watch *Richard II*. They all enjoyed it greatly and are excited to explore more of Shakespeare's histories."

A second pedagogical level was the learning gained by Ravensbourne students from participating in the production of the event. Norwegian BA (Hons) Web Media Production student Tor-Arne Njamo explained: "We got to use most of our skills from the course on this project. We created a website, streamed live content and managed social media with the Q&A part." He also found the collaboration between courses that the project provided was extremely educational: "I think it was a great learning experience. Working cross-course was really great, meeting new people at university which I haven´t had the chance to work with before. Also working at a professional level with people from the UK." He was candid about what the project has done for his employability: "It has given me a great work experience, which I think future employers will appreciate that I have. I have shown that I can work in a group with deadlines, managing to work together. This has been particularly good because I have worked with a company that is as well known as The RSC."

Broadcasting student Leon Langdale, who headed up the Ravensbourne studio team, added, "The *Richard II* project gave me a massive opportunity to help lead a project that makes such a difference to learning and the educational experience of secondary school children. I improved my time- and people-management skills, and proved to myself that I could direct such a large production. Meeting David Tenant was pretty cool too!" He explains that the project reinforced his academic course content considerably: "Ravensbourne is all about 360 learning - immersing oneself and emulating professional practice from the first day you step into the institution. My course has taught me not only the professional, creative skills that I need to succeed in my industry, but also improved me wholly as a person. Production is a difficult art, and the RSC project has definitely challenged this, through application of communication and production techniques. The project required managing a large team and a lot of resources. Networking with the team at the RSC has created a close-knit tie between them and myself, and I hope to build on this. I can also use the project when applying for related jobs in industry."

2.4 THIRD PROJECT: *HENRY IV 1 & 2*

After the success of Richard II, on 6th and 30th June 2014, Ravensbourne students managed two more live streaming

events for the Royal Shakespeare Company. The two June events were so close together because they were the two halves of Henry IV – Part 1 and Part 2. So they were treated as a single entity, and used the same basic website for both events. There were some tweaks in between, but the major leap had been in functionality since Richard II.
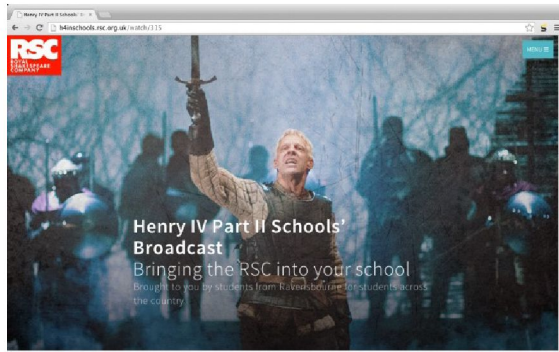

Figure 13: The Henry IV website

A sophisticated tracking and monitoring system had been implemented, and a much more elaborate moderation system for the questions. As with Richard II, a recording of a RSC play that had recently been broadcast live to cinemas was embedded within a live studio show. This time, the presenter was the BBC's Sonali Shah. The event started off with her introducing the play, alongside some short promotional videos, and then after the play there was a question and answer session in Ravensbourne's TV studio, using questions that had been sent during the interval and after the play via our Web-based submission system.

Figure 14: The Henry IV back end provided a wealth of tracking information about how schools were connecting to the event

One of the students working on the project created a tracking system where schools would log in using an id. The system was set up so you had to use an id to get onto the website. However, this wasn't really there for security reasons, but to make it possible to monitor which schools that had signed up for the event were actually participating, and what system they were using to access the website. This meant the team could help them troubleshoot if they were having problems with any part of the services we were providing. Despite these changes "under the hood", the main website took a similar single-page scrolling design approach as for Richard II, although this time using a different code base, so a more discreet menu icon could be employed in the top right-hand corner, in similar fashion to many smartphone apps.
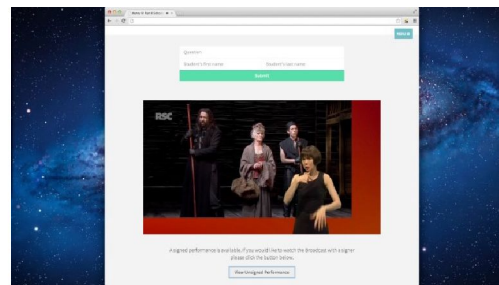

Figure 15: A signed version for the hearing impaired was added with Henry IV

Another innovation with these productions was the implementation of signing for viewers with hearing difficulties. The whole performance and live studio proceedings were signed. Some of this was pre-recorded, and some was performed live. Viewers could easily switch between streams using a button on the website beneath the video window. This meant the events were much more accessible than previous ones, and viewers with hearing difficulties could enjoy them as much as the fully able.
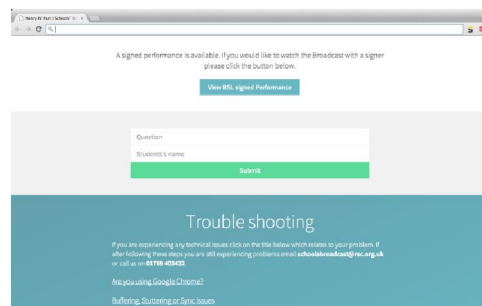

Figure 16: The question submission system was simplified for Henry IV Part 1 and 2

Another area of innovation was the question and answer system. For I, Cinna a simple off-the-shelf PHP chat script had been used for participants to send questions, but this didn't leave much opportunity for moderation. So for Richard II a custom design had been developed. However, this PHP-based system had experienced some performance issues with the heavy traffic from an event involving the household name David Tennant. So for the Henrys yet another new system was developed, which provided sophisticated multi-level moderation queues, and used the signing-in ids to track who was asking which question. So schools only had to enter minimal information at the time of submitting the question on the website.

Figure 17: *The live question moderation system for Henry IV Part 1 and 2*

In the first phase, the moderation team would then check to see if the question was valid, then to see if it was good enough to go on the onscreen ticker and map, and finally if it should be forwarded to the studio so it could be put to the guests during the live post-performance session. The system proved very effective, and provided full control over the various ways the school participants could see how their questions were getting through, and possibly even asked live. Schools were also invited to send pictures of themselves watching the event in their classrooms, and these were shown during the interval, so the school students had a greater sense that they were part of a special event.

Figure 18: *A live onscreen question ticker was added with Henry IV Part 1 and 2*

Not surprisingly, the number of schools participating wasn't as great as for Richard II, as there was nobody quite as famous as David Tennant involved in these two productions. But they were still very successful, and Ravensbourne is now working on a three-year deal to produce three streaming theatre events with the RSC a year, starting with Two Gentlemen of Verona in November 2014. This will allow further development of the strategies used to engage contemporary school students with the work of Shakespeare.

3. CONCLUSION

Streaming video over the Internet into schools shows great potential to bring theatrical performance alive for pupils. But it is essential to tie this to student participation, so they are engaged with the performance, feel it's an event for them, and not just something they are expected to watch for school. This brings Shakespeare to life as culture that remains relevant in the modern age.

Projects like I, Cinna, Richard II and Henry IV 1 and 2 also underline how important it is to link course work with the real world. Using the techniques taught in class on a real project gives them a deeper understanding of the methods they have learnt academically. They also understand that their learning is appropriate for industry, not sterile academic exercises devised by tutors who have lost their connections with the wider professional context. Although it is important not to lose touch with a deeper level of academic understanding, illustrating how this connects with the activities of professional life benefits the pedagogical process greatly, and makes it much easier to maintain student engagement with a course of study when it does enter more complex theoretical areas. This effect is felt well

beyond the students actually working on the project itself. They brought the learning back into class, reinforcing their belief that their learning would help them achieve rewarding employment after graduation. They could also share this with their colleagues on the course.

The Richard II project exemplifies the way content delivery in general is changing in the Internet era, with new platforms and formats developing alongside the technology. Giving the students the opportunity to help shape this development not only gives them the chance to be involved in a cutting-edge live professional project, but also lets them sharpen the cutting edge of this change. So the skills they acquire are not just fit for the employment opportunities of the past and present, but help them position themselves for industry as it will be evolving in the future. This means they can potentially open new areas of employment opportunity, rather than just filling existing positions.
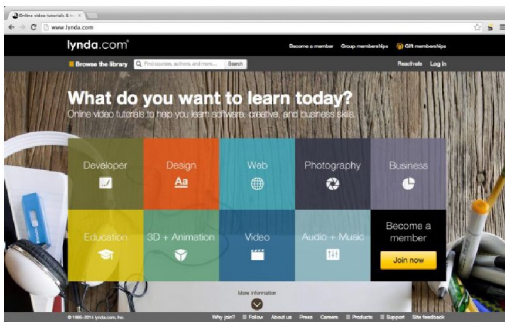

Figure 19: Online education services such as Lynda.com deliver teaching in a format tailored specifically for the Web

The experience Ravensbourne has gained delivering Shakespeare to school students parallels a growing trend across all media. Newspapers, television, and the music industry have all been radically affected by the arrival of the Internet and online culture. All have gone through an initial stage of seeing the new medium as just a different way of transmitting the same thing, but have rapidly had to adapt to the fact that the Internet is a new, hyper-social medium that requires the restructuring of content itself, not just the format in which it is delivered. The same is true of education, which finds itself facing new models exemplified by Lynda.com, Khan Academy, Decoded and Code Academy. Whilst the Massively Open Online Course has perhaps not been the revolution that was expected5, it is clear that online culture calls for a new mode of delivering learning experiences.

Whilst online education is highly unlikely to replace conventional education methods wholesale, it is clearly going to be increasingly influential, particularly as generations who have grown up with gaming and other online culture expect a more participatory experience from their media. It will be fundamentally necessary for the teaching community to take this into consideration for its own practice. The RSC projects with Ravensbourne have broken new ground in student engagement, both with the schoolchildren participating in them and those involved in their production. This potentially leads the way forward for future educational innovation.

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