Jungulator

WAC Trial Report

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EXECUTIVE SUMMARY

Jungulator was a project idea submitted to Futurelab's Call for Ideas programme from Nathan Hughes and Matthew Olden based on their original I Am the Mighty Jungulator (IATMJ) work. Following on from a previous report on Jungulator, this report documents sessions carried out at Weekend Arts College (WAC) Performing Arts and Media College in London, establishing some usability criteria for future rollouts of IATMJ software and some structure for a pedagogical curriculum that could be used with young people in the future. The usability format pertains to the development of help files, forums and intuitive on-screen feedback mechanisms that should be utilised in order to capture a wider spectrum of users. All users requested some form of descriptions for each element of the tool and most wanted a document to hand that could be resourced in order to help them understand the screen interface. Half of the participants were looking for online forums in which to share and post the experiences in order to fast-track their decisions and avoid repeated problems. All the participants enjoyed the application and wanted to use it again!

In terms of a contextual structure in which to teach the tool, the performance model was used, as this most closely represents what a VJ does. It also feeds directly into the experience at WAC, as every term is punctuated with a Sunday Cabaret presentation event. In order to get the participants up to speed in order to perform, the sessions were broken up into introductory and experimental lessons. By the end of the sessions, most participants had either created a recorded piece or were looking to extend the application into other realms, ie looking at importing their own content into the software.

The sessions were useful in generating genuine interest, as all the participants had a high degree of digital literacy in other fields, ie web design, video and audio production, and so were able to transfer a lot of experience and knowledge into the process. For the students who attended most of the sessions, their keenness was translated into time spent exploring the software's capability as well as making the outcome their own - by setting up a very robust and engaging performance and by injecting their own content into the performance.

RESEARCH QUESTIONS

With all Futurelab projects:

What does it tell us about designing educational digital resources?

This process reinforces the notion that with the right resources and expertise you can allow students to explore a seemingly cumbersome and ineffectual piece of software. While these statements are somewhat generalised, they accurately describe the presentation of Jungulator as cumbersome, as it requires three separate applications to launch in a specific order, has little documentation and help files, and has no description of the toolsets. The requirements are therefore on the practitioner to utilise their pre-existing knowledge of computers and software to harness the power of Jungulator.

What does it tell us about how learning processes are transformed through the use of the tool?

The general consensus was that the tool was similar to other ones that they have used, but that the resulting 'performance' was new. The context for the outcome was one that they had not investigated previously. While the participants were into video and music production, they were not performers and this tool allowed them to think about a 'performance' without having to perform and be stage-frightened. In all the cases, the participants recorded their pieces rather than performed them. This probably has more to do with their busy schedules but could also be due to the thought of performing in front of their parents and peers.

How does the project help us understand the next generation of technologies to create motivation and engaging learning experiences?

If you build it, then they will play with it! If it works, is actively engaging and creates unforeseen results - despite the possibility for confusion - then most of them will be excited and be able to not only participate but create content that could exist in different contexts. One example was the web design student, who thought it a useful tool to demonstrate how to make a quick and easy music video for web distribution.

With Jungulator:

How can we best integrate the AV aspects of the tool and realise the software's full potential?

By creating useful rollover actions to highlight what the toolsets are, implementing more pods and making it easier to delete and add samples, by enabling an active help section so that the users can find the answers they need, by creating an online presence/forum to concentrate users and generate a community of users - similar to vj.net.

What type of graphic interface would best support young people to work with ease when using Jungulator?

The students proved that this does not matter as long as there is consistency, feedback and a manual. Their ability - based on experience - was such that they were able to use instinct and knowledge to figure out what the tools function was. If there was an improved feedback mechanism via the interface, it would only have improved their workflow with Jungulator.

What is Jungulator's potential as a learning tool and how can it support young people's creativity, composition and performance practices in schools and community centres?

Huge. There was resounding support for this tool to be available for them to continue working. The possibilities seemed endless once the interface and technical limitations were overcome. In terms of school pedagogy, it could easily be introduced into the media curriculum as a way to make generative music and video compositions, to complete a course in music video production or even as an experimental art form. All of which should be predicated on prior knowledge of digital tools and experience in working with video and audio media forms. In terms of community centres, since these environments have their own inherent limitations and variations in attendance, it would be a struggle to see how you could get practitioners there to create consistently.

What kinds of interactions does Jungulator support?

It enables people with different backgrounds to collaborate. It supports the context of performance and creating content that will then be performed.

What kinds of support material would we need to consider developing for use of Jungulator in school and community centre settings?

Definitely needs a printed manual, a digital manual and possibly an online forum of users. There should also be interactive pop-ups or rollovers to help identify the tools and functions within Jungulator.

How could we design an appropriate activity, within which to meaningfully embed Jungulator in a community arts setting?

The experience of setting up a performance and using that as a target seemed to motivate our participants. There is always much more satisfaction in creating work that you know is going to be seen. Ideally a live performance, but a recorded one worked just as well. Another option is to enable the students to make works that can then be distributed on the internet via a website. The Jungulator package creates QuickTime files of their work, so these are easy enough to distribute via the web.

In this setting, what kind of composition and performance practices and interactions does Jungulator support?

Collaboration is crucial. It enabled our participants to bounce ideas off each other and created a peer support community around the tools and the pre-packaged content – ie which sample was best, which process did not work, what the tools are, etc.

SUMMARY OF WORK WITH CHILDREN

Student feedback

Summary of involvement: there were four participants (students): Ahmed, Jean, Jenna, and Yas.

Initially it was conceived that there would be four sessions of three hours each. But due to last minute health emergencies, the date of the performance being on the 11th, and the fact that the students finished other lessons at different times, the schedule was shorted to three sessions, but extended to four hours each - and on one occasion five hours. Their involvement was individually customised in order to accommodate their varying schedules - some finishing at 1pm, others at 2pm. This gave us a chance to work one-on-one when demonstrating the tool, but in a group when learning.

Background on students

Ahmed Ally: Male, 17 - studying video production, applying to college

Ahmed attended two sessions, and was keen to explore and use the Jungulator software in order to be on the cutting edge. He forecasts it as a future component in clubs, and considers it the 'new age of DJing'. Due to time constraints, he was not able to make all the sessions, but was present at the last to record a sequence for the Sunday Cabaret. At the first session, his girlfriend came to meet him at the end of the session, and for a short while they were working together on learning the tool. He wanted to install the software on his own machine in order to work with it in his own time and would like to do more VJing in the future.

Yas Haremi: Female, 18 - studying digital media and video production

Yas attended the first and second session and enjoyed collaborating with the other students, especially with Jean. She picked up all the tools very quickly and was the first to explore the text application. Yas saw the immediate implications of the Jungulator tool and was the first to complete a 'short' sequence. She too would have a liked a copy of the software so that she could work on the application 'outside of the classroom'.

Jean Kikaya: Female, 22 - studying video production, attending college

Jean got into Jungulator very quickly. After the second session she was able to create several 'performances' and in the end was able to record an eight-minute piece that we used in the Sunday Cabaret. It should also be noted that this second session was started at 1pm and she worked all the way to 6:30pm. If it wasn't for the fact that Sunday WAC was closing, then she would most likely have kept going. Jean was the oldest, and because of this was not able to

attend the final session or the Sunday Cabaret, as she had college coursework to complete before the Christmas break. In fact it might be noted that there were a lot of time commitment issues, with the students having to choose whether to spend their second to last Sunday in college or with family preparing for the holidays. Her final piece is definitely the more conceptual of the groups, with a clear opening sequence, a middle exploratory section, and the final, closing sequence, which reinforces the opening section - a very clear nod to a typical three-act narrative structure. This is probably to do with her video production background and in fact she sees this tool as an opportunity to make quick and easy music videos.

Jenna: Female, 15 - studying digital media and music technology, still in senior school

Jenna had perfect attendance, although she was unable to attend the Sunday Cabaret due to the above-mentioned Christmas decision. Due to her commitment level, she was able to explore importing her own content into Jungulator. This was focused on audio-only content and consisted of taking four tracks from her iPod and creating four discrete samples of these audio tracks. The resulting clips were then saved first as MP3 files - which later proved to be the wrong file format - and then as WAV files which Jungulator was able to read perfectly. This was very interesting, as she was perfectly fine with using the existing video content, but had to have her own tracks in the sequence. There are some reasons for this: 1) she is highly computer literate in terms of software and hardware - due to her attendance on the digital media course at Sunday WAC; and 2) due to her possessing an iPod and all the requisite skills needed in order to transfer media to and from the iPod and computer, she understood the technical and physical requirements - ie file formats, cable interfaces, software interface, file manipulation, content assessment. So, despite the above technical setback, because she was aware of this as an inherent problem with computers and software, it was easily overcome, even if it took longer. It also made the reward of hearing her own selections in the sequence that much more gratifying. This may have also led to her deciding to focus on audio-only, as she knew that to incorporate video would require much more time. She was interested in using Jungulator to create short videos to be seen on the internet, and possibly brought the curriculum of a web design course.

Background on researchers

There was one teacher (Fleeta Siegel) and one additional researcher (Steve O'Hear).

The structure of the sessions was over four hours from 1-5pm on three Sundays - after prior lessons in digital media and video production. Due to the students' prior experience in other forms of media - graphic design, video, digital audio, text - there was a quick transfer of existing skills onto the new 'tool' that they were being asked to explore. In fact, in the time period allotted to them, they quickly exhausted the pre-existing library of content – in the sense that they narrowed down the choices to several clips that they wanted to use and generated a performance based on those selections. In one instance, a student went so far as to import her own audio files into Jungulator (see 'Jenna' above).

Fleeta has been VJing for over six years and his first collaboration was with a video artist, using Arkaos v.1 to trigger stills from the video using a MIDI enabled keyboard. This was very interesting, as it enabled a musician (who the piece was ultimately designed for) to control the visual environment. Since then, Fleeta has worked with pianists, composers, programmers, DJs, dancers, animators and illustrators to create augmented spaces filled with 'interesting' content. The last phrase is very subjective and relates to the concept of the given project and the confines of that concept. His performances are not usually repeated and so there is no one single strand connecting them except for the integration of sonic and visual performance. He has worked with most versions of Arkaos and considers it 'model app' in that it gives the user immediate and real-time control over visual content, can integrate with MIDI devices easily and can involve almost any multimedia file format. Other software that has been used includes GRID, MotionDive and MAX/Jitter. While he understands the creators' intention behind creating the Jungulator package, there is a strong indication that a similar pedagogic role could be played by existing software packages and that if generative concepts were to be the driving

force, then MAX should be the tool to introduce to students. Why not spend the same resources - time and money - on demonstrating a piece of software that was already proven, via the market, documentation and user forums. The only demonstrable advantage of Jungulator is the utilisation of both audio and video controls in the same application. Even this aspect was lost, as most students felt there were not enough pods for the video and they could not control how to delete samples in order to bring in new samples.

SUMMARY OF ENVIRONMENT

Evaluation report

Technical critique: Liked the ability to import audio, video and textual content, but interface and errors did not provide useful feedback. The ability to record the performance was useful and critical. The tools did not always work consistently with different clips. Their use in real-time was ineffective.

Pedagogical: Learning was swift, as process is superficial especially when working with pre-defined library clips. There was no info or feedback when a created clip was imported and not working properly. VJing, especially when you are not generating assets or performing to a story, is superficial in that you are eliminating composition. So, technically, it might be better to teach them MAX to learn programming, or iMovie and Ableton Live to teach telling a story. The tool should not take over from the storytelling. Creating assets becomes the key learning, creating components that will be performed into a story, or some sort of linear narrative.

Usability: Problematic as it does not build from user experience in a customised Flash interface, not in real-time, does not take advantage of screen real estate.

The learning environment was created in a video editing suite at WAC Performing Arts and Media College. The college is a part of the Interchange Trust, which runs weekend courses in a variety of arts disciplines, eg dance, drama, digital design, jazz bands, video, music technology - for more info visit www.wac.co.uk. The facility is superb as it is situated in a distinct architectural space comprising an Edwardian town hall which is linked to a modern arts block by a 50-metre glass atrium. The classroom itself has three Macintosh computers running digital video editing software, which were available to do additional work, ie research on the internet, printing, and content manipulation (audio, text, visual).

TRIAL METHODS

Description of final prototype

The prototype learning environment consisted of an Alienware laptop, an optical mouse and external speakers. The participants were shown how the software works - from launching the three applications in sequence; creating a library; attaching samples to pods; applying changes to the pods; adding text; troubleshooting and recording final pieces or playing live.

Description of additional resources and materials used in trials to support learning

There was no paper manual available except for a printed copy of the ReadMe, which contained some troubleshooting tips. This was kept at hand at all times, and used occasionally to help when problems arose. There should be at least a printed description of all the different tools and explanations on the changes of parameters that take place with each adjustment (it was difficult for us to understand what was being changed unless we could hear or see the change in a dramatic way - if the change was too subtle, we assumed the tool failed or was

not working properly). The built-in speakers, especially when two laptops are in the same room, were inadequate for properly listening to the audio playback. Therefore, two sets of speakers were plugged into the laptops to boost audio levels.

Description of role of tutor/teacher and researcher in trials, and overarching approach to teaching and learning

The teacher's role was to learn, supervise, instruct and troubleshoot the Jungulator application with four participants over 12 hours. The initial approach was to have four sessions, but due to a combination of events, this was changed to three longer sessions, which had a beneficial effect in that it was possible to get them to commit to less time in number of days - which to a teenager is a driving force as to how they want to spend their free time - but enough time on the application to produce a final piece of work.

Statement of confidence

There is a huge potential for developing Jungulator as a tool in education. In terms of wider market penetration, there are existing and more well-established software brands, such as Arkaos, MotionDive, Grid, Vjamm, Ableton Live and of course MAX/MSP/Jittter, that do what Jungulator does and better. The only difference is that these market leaders focus on one component of the content spectrum - ie music or image production. In the real world you would want a specialist to take control of those content aspects, and there are very few people who have exceptional expertise in both arenas. In terms of education and learning however, Jungulator has great potential to help students find a voice in either the music or visual fields and help them focus their ability to either side.

In terms of detailed changes, Jungulator needs to adopt more helpful hints about the tools - this involves rollovers, a documented help section and consistency in the performance of the individual tools that get assigned to each sample/pod. The overall interface should take advantage of the screen that it is taking over, otherwise it should be a floating window - at the moment it takes up the whole screen without adding to the margin space, which is empty. Involving more graphic and usability designers into the next phase is crucial in bringing out the largest potential for this product. At the moment it presents as a proof of concept and needs more attention to users' needs and how they use the tool in their workflow. With the above-mentioned list of software, there are clear signals to the user between planning and performing. While we appreciate the desire to capitalise on generative artistic principles, there should be a more pronounced effect to the user to denote the performance. For example in Arkaos, the screen goes into fullscreen mode. Otherwise the effect is that it is all play. In either case, the tool should be designed with one purpose in mind - as a player with a list of capabilities or as a performance tool.

APPENDIX 1: STUDENT FEEDBACK

What is your creative background?

Ally: artist, innovator, designer

Jenna: web designer

Why are you interested to be involved?

A: Coz it's interesting and I like mixing around with the products and you can make short clips and movies, etc.

What do you think VJing is all about?

A: VJ, the new age of DJing and it will be in all the clubs. Advertising and marketing products…

Jean: Any form of visuals can be used with any form of audio to create any form of effect/expression.

What have you learned?

J: I've learned how to transfer my own music samples. Whilst doing so, I found out that certain formats are not compatible with the software, so therefore I need to make my own samples.

Je: You can do more than just mix visuals and audio. You can rotate, speed things up or down. I am more confident in playing around and adding more audio to the pods (more than two) and making adjustments. I am also more comfortable with switching from visuals to audio.

J: I have learned how to import files properly and that I had to crop the samples in order for them to work in the software. I learnt about mixing the videos quite smoothly, which I didn't know how to do before.

Would you use this again, why?

J: Each week I learn a bit more and that enables me to create a better piece the next time I use it. So it would be nice to be able to create a full piece of good standard on it.

Je: Yes!! It's addictive even though I don't know much. I can imagine it being more addictive once I have more knowledge.

What stands out the most?

J: I think the fact that you can import your own files into the program and manipulate those to your choosing.

Je: The fact that it is continuous, the ability to progress and create as you go along.

Yas & Je: Good wide range of audio library. So far, 'idiot friendly' with the short explanation at the start.

How much of a collaborative tool is it?

J: It's quite a good tool, but there are some limitations as to how much you can manipulate the video and audio. For example you can't fade videos into each other smoothly.

Je: Yes, when I first started, I worked with a partner. This helped as we were able to share ideas, encourage each other. Especially after we were shown the ropes. I think it's a good idea to start off in pairs (but no more that that) then go off and work individually.

What other skills and experiences have you been able to utilise in order to use the tool?

J: Well, as far as mixing the music, I listen to music a lot, so that enabled me to be able to know what sounds would complement each other. Also, being quite computer literate in general helped me to use the software.

Je: My editing skills from my video production course.

What improvements would you like to see in the tool?

J: On the Jungulator, I think if the icons when you rolled over it told you what it is exactly it would help to use it more effectively. A lot of the time I am guessing what the icon is. I would also like to see more of the video pods because there is only two, which restricts how much you can create a VJing piece.

Yas & Jean: Icons. When you float over, it may tell you what it is. More effects would be cool. As much video clips as audio.

Y: Play and Pause buttons. Save audio separately from video.

Je: Control over the output?

What did you set out to do today?

J: Today, basically was to come to WAC and do my web design course. Since I came to the VJing class, my aim was to learn about the basics of the software so next week it would enable me to be slightly more confident using it.

Je: Take parts from my video production.

Y: To create a short clip by combining audio and video files provided.

J: Import some songs off of my iPod that I think will run nicely with my chosen video.

Did you achieve your goal?

J: Yes, I did achieve my goal, there are still a lot of possibilities that I have not used in the software, but I know the basics now.

Je: Yes, more than I expected.

Y: I did better that I myself expect on the end result since before today I had zero knowledge about the software we were using.

J: I did achieve my goal. I reformatted the music, burnt it onto a CD so that I could get the software to recognise it.

What were the problems?

J: There were some icons that were difficult to understand, so I thought it would be helpful if when you float over the icon, the name of the icon appears. There are quite complex menus on the software in different places. I think it would be easier if there was just one main navigation where different menus branch off of it. I think there should be an option where you can remove samples from the library because otherwise it gets too crowded.

Y: Problems were some audio files that didn't work, besides that, everything worked smoothly.

Je: The Jungulator would not allow MP3s, it only read as QuickTime format. Not everyone has a program that can convert formats. So that was difficult. Also, the song had to be trimmed beforehand which is a quite a lot of work. I think the program should have an option to ask for that.

Y: Sometimes, you trim the videos and it doesn't work. Navigation could be clearer. How do you remove samples?

Je: The black bar at the bottom of the screen, did not need to be there. The down arrow for scrolling was not there sometimes. Sometimes we had problems with the video and audio sliders, as they didn't work. Seems like I can only trim the sampler on browser, before importing but can't actually do it once imported.

Y & Je: Several WAV files could not be imported and played. As well as the following files: gingong gooley.aif, jpeg copy.aif, sick_slow_funk_loop.wav, clicky_carwash_claps.wav and disco_funky_charlie.wav

What support materials would you like?

J: I think a help tutorial would be useful, or an online forum.

Je: Help tutorials.

Y: Probably just a guide or instruction booklet so that it would be easier to also study at home or anywhere besides the classroom.

Je: Maybe a help button/icon on screen.

J: Having access to more information is a very good idea, something like a manual that we can take away to read.