

## 'Digital Tools for Rural Schools' Campaign to Improve Education in Africa

'Digital Tools for Rural Schools' Campaign to Improve Education in Africa Language learning specialists EuroTalk are experts in their field with 20 years of publishing experience and over 10 million customers. EuroTalk use LiveCode during the authoring process for many of their titles. They also deliver a number of commercial titles using LiveCode.

We caught up with EuroTalk's Managing Director, Andrew Ashe, to talk about a major new project that uses LiveCode for mobile devices. We asked Andrew to start by telling us a little about their project.

**Andrew Ashe:** We've been working for a number of years in Malawi looking at different solutions for delivering education to primary schools. These are rural schools with no electricity, and very large class sizes. Often the teachers have very few resources. We've spent quite a bit of time looking at good solutions to these issues. We ran a pilot project in some 50 schools where we evaluated DVD players, hand held mp4 players and computers. The pilot project was a great success and as a result we've been included in the Malawi government's plan for 500 primary schools. We now have our first significant grant from the Scottish Development Agency. EuroTalk has matched their grant, **which brings the total budget for this project to £500,000.**

**"By using LiveCode to develop and iterate quickly, and use handheld devices to deliver, I think we are the verge of a revolution in terms of delivering education."** Ashe: We're putting

some of our existing material onto these devices such as health lessons and language learning material. But we're developing a lot of content for this project to teach primary education:

basic literacy, numeracy and lessons for teachers. These simple lessons are really important. For example, we have lesson plans for teachers, material on managing

a classroom, activities for the children to do such as counting bottle tops or look at the environment like this, and so on. When teachers have access to very little this is really important. Everything is being delivered in the local language, Chichewa.



### **RunRev: Why did you pick LiveCode for this project?**

**Ashe:** We know from decades of experience developing interactive content that the most important thing is being able to have an iterative development process. LiveCode is such a joy to use because you can develop interfaces in it very quickly. We can create some quick functionality and see if it works. Programming in Objective-C is absolutely fine if you know 100% what you want. But no sensible developer working on this type of project knows completely what they want until they've done it, tried it, experienced it and most importantly got real users to use it. We see cases where a company has invested a year of effort in something and it just doesn't have a great user experience

– once you’ve invested that sort of time into something you’re almost committed to trying to launch it and then it just doesn’t work.

The key to the whole process of developing education content is that you have to engage emotionally with the child or adult. It doesn’t work having great content half way through an app, if the child has got bored and given up in the first five minutes. As a really simple example, we have a screen that gives feedback when a child has been successful, for example bringing up a tick on the screen. How big should that tick be? And how long do you leave it on screen? Is it 1 second, 2 seconds or half a second? You might think that this sort of thing isn’t important but it is fantastically important. It makes the difference between having a product that gets used and a product that is a complete failure.

**“The thing about LiveCode is you can quickly make a change, add some audio or video, or program something temporary just to see what it’s like, then try it out right away on a real device. Then everyone can sit round and say “no that’s not quite right” and decide what to change.”**

We’ve tried using tools that let you emulate the experience on a computer and they aren’t as effective. You can’t emulate the whole experience. On a computer you use a mouse instead of touch and you get children using the wrong button when trying out your prototype. We have many other development tools here but I just don’t know of anything else that would let us do what LiveCode does.

### **RunRev: Why has EuroTalk chosen a high tech solution rather than using pens and paper?**

**Ashe:** If you use a pen and paper, you have to be literate. There are 5000 rural schools in Malawi and they have very few resources. If you have primary school children who can’t read or write, traditional textbooks and the other teaching tools that work in a primary school in this country become less relevant. Existing textbooks have to be imported and have a



western bias. For example, they are geared to shopping in a supermarket or something else irrelevant to the culture of the country. We’re delivering audio and video in the local language. We’re able to deliver an experience to these children that nothing else can. For example, some of the schools we’ve been to are only 20 miles away from a game reserve with elephants, hippos, wonderful African wildlife. Yet even 20 miles away these children have never seen an elephant; they couldn’t tell you what it looks like. It’s tempting to think of Africa as this idyllic rural environment

but if you have no access to photographs or maps, no posters on the wall, no magazines or books in a library, and if you’re in a very, very sterile environment, that’s not idyllic for these children.”

If we can use tools like LiveCode to develop and iterate quickly, and use handheld devices to deliver, I think we are the verge of a revolution in terms of delivering education. I don’t want to make this project sound more important than it is however we are playing our part in a new wave, a new way of interacting and educating that is coming to the world and particularly to Africa. We have seen that these great applications can truly be life changing. For example, if you are a child in Malawi and have no one to teach you how to count or handle money to give change from a note, you are barred from even the most basic Entrepreneurial skills; you can’t

even sell tomatoes from your garden at the side of the road. If your parents have died of AIDS even basic numeracy is life or death. The West provides injections to keep children alive, but we are failing massively in the area of basic education. There is really good evidence that as children grow up they are more likely to have fewer children, healthier children and participate in the local economy and community if they have been educated; the whole thing integrates together.

When we bring in this technology, as we have tested in Malawi, we see that children who have never used technology before pick it up instantly. It's as if there is something in the human brain that likes pressing buttons, much like teenagers in Europe and USA are great at text messaging. Also, because the technology is in the local language, the children see video with people who sound like them, have the same accent, and it becomes culturally relevant. We know from the trials that they have a sense of ownership and really engage with it, rather than seeing it as something pushed on them.

**"We have a new revolution going on that is in its infancy where the world is going to gain access to very high quality information, very high quality education. We need great tools that can interface between an author writing primary education, or a journalist, or whomever. The more accessible the tool, the more it unlocks all of this other expertise, allowing it to feed into this revolution that we know is happening."**

With LiveCode we are free to focus on creating this great, emotionally engaging and culturally relevant content. I think of it a little like the printing press. When that first got going, authors themselves could not use it without expertise.



We will initially be delivering the technology on iPod touches. We have solar panels that get installed on the roof of the head teacher's office to charge the devices. We are deliberately doing this phase with relatively expensive equipment because we have tested it and we know it works. Of course that is open to criticism, but it is a bit like people telling me years ago that mobile phones are not relevant in Africa because they don't have landlines. History shows this to be completely wrong; mobiles are all over Africa being used in so many inventive ways. Devices like Smartphones, mobile devices, iPads, these are going to have such an impact on the educational

system of the world. This will be particularly true as the technology becomes cheaper.

Anyone who thinks technology is not going to change the world is just wrong. We expect to use inexpensive Android devices in the longer term, which is another reason why LiveCode is just so important. We'll be able to deploy to Android—or any new device—without having to rewrite our applications.

<http://eurotalk.com/malawi/>

<http://www.scotland.gov.uk/News/Releases/2010/03/18130728>