Role of Technology in the implementation of the MarrakeshTreaty

We heard this morningabout the “book famine”which the Marrakesh Treaty has been brought into being to tackle.

One of the many tools we will be able to utilize to make Marrakesh a practical reality all around the world is of course technology.

Whether that is the technology used by readers to access the books they will soon have the ability and the right to read, or the technology used by publishers and authorized entities to produce accessible books which we can now share more easily.

As I speak to you this afternoon, you will see an example of the kind of technology which I use to read content. There are many others: from devices which provide synthesized or sampled voiceoutput, through those which provide larger print on a screen, to the electronic braille devices I use every day.

And, just as there are many technology solutions which enable me to read books if they are accessible, there are also many technology solutions which enable authorized entities to produce those accessible books for me to read. There is also a fast-growing technology-based e-book format which will enable publishers to make books accessible from the start: to make those books born accessible.

Accessible or Inclusive Publishing

Over the past two decades, the daisy consortium has developed, maintained and enhanced an audio and e-book standard which has been adopted by most blindness agencies and their libraries around the world. It has provided the reader with navigation capability similar to that which sighted book readers have always enjoyed. So, when reading a DAISY formatted book, I can move around typically between chapters, sub-sections, pages, parts etc. If included, I can even read annotations, footnotes etc. For many years we have argued that DAISY was the best way to publish, and the best way to read, whether with fingers, ears, or eyes: that’s braille, audio book or large print. Imagine how, thanks to Marrakesh, a technology like that can enhance the reading experience of students who ned fast access to specific parts of a book but not necessarily in the linear order in which it was written. Imagine how much easier for the recreational reader it is to find the chapter they want to read.

But DAISY has always been regarded by some as a blindness product: not intentionally so, but effectively so nonetheless.

This is changing with EPUB3. I probably don’t need to tell any of you about EPUB: this e-book standard is widely used by mainstream publishers. What we love about EPUB3 is that, if followed and implemented correctly, accessibility advantages of

DAISY are baked right into it. This has happened thanks to close collaboration between the DAISY Consortium and the IDPF, the international body which maintains the EPUB standard.

If an accessible EPUB3 book is produced, these are just some of the features it might have:

- Easy navigation around the publication: having access to the content is great, but it is much better if one can navigate it efficiently and get to the part of the book needed;
- Integrated human narration or text-to-speech
- Verbalised descriptions of pictoral and other graphical information;
- Implemented Standardised accessibility guidelines: ensuring that the EPUB3 book is indeed accessible after all;
- If Digital Rights Management techniques are used, they don't interfere with the assistive technology used to access the publication. If they do, this would also render an otherwise accessible publication inaccessible once more;
- It will enable the book to be read by a variety of devices and technologies used by print disabled people. An accessible publication which is tied to an inaccessible book reader again renders that publication inaccessible, regardless of how accessible the EPUB3 is itself.

And that's just the start.

So we can see the real potential over the coming years for a mainstream e-book multimedia format to have accessibility build into it right from the point of creation: in other words, the prospect of commercial electronic and audio books to be born accessible.

Connect that up to the potential provided by the Marrakesh treaty, whereby authorized entities can share this increased accessible content, and I think you'll agree that if ever there was a cure for the book famine, this is it.

More and more publishers are identifying EPUB and, specifically, EPUB3 as their eventual preferred publishing format. The American Publishers' Association last in 2013 encouraged its members to do this.

How Do we Get There?

You don't just adopt EPUB3 just like that; I understand that. And there is of course the issue of getting from earlier versions of EPUB to the accessible form of it, even if you're already an EPUB shop. But the prize is in sight, and it is closer than it has ever been before.

So how do we get to where we want to be? Well, if I may be so bold, I'd like to borrow from my friend and colleague Stephen King, who is the President of the DAISY Consortium. Two years ago, Stephen outlined a strategic approach which I think sums things up beautifully.

- We need to deliver more mainstream accessible publications;
- We must improve the efficiency of the customized accessibility publishers like the blindness agencies and allow us to focus on doing those things which are going to remain harder to do, particularly the demand for STEM. There is no reason though why our efforts cannot be fully integrated into the workflows of the mainstream publishers: that way, we can get them to help us to help them by placing the necessary structures and mark-up into their publications as part of their BAU workflow. That means the whole publishing process, from the author right through to the distribution of the final product should be thinking about accessibility;
- We need to modernize the whole copyright, legal and business framework under which we operate so that we no longer waste precious resources by duplicating each other's work. We need to stop the Harry Potter Effect. This is where Marrakesh comes in;
- We need to improve the current technologies which are used for publishing and for reading so that accessibility is built in. So our efforts need to focus not just on the published books but also on the devices which will play them: the complete distribution channel must be made more accessible than it currently is. Too many e-readers are currently unusable by print disabled people. And what we do know is that people are consuming their content in many different ways: from the almost traditional DAISY talking book players through to smartphones and tablets. Even the authoring process needs to be involved here: publishing software needs to expressly remind content authors and publishers to include accessibility structures in their files, and to nag them if they fail to do that;
- We must ensure that print disabled people are coming on the journey with us. They need to be equipped with the technology, and the confidence to use that technology. Otherwise all our efforts will still only be of benefit to a tiny sub-section of the community who can both afford and use the technology they will need to access the content.

Blindness agencies are going to have to play their part in that process, but the publishing industry is going to have to make it worth our while.

The 3 As of technology

Then we need to ensure that the end user, the people who are actually going to benefit from this explosion of accessible material, can actually acquire the technology which they will need to do that. We already identified the book famine as one of the major problems facing a community which badly needs access to information, and we know that the Marrakesh Treaty is providing a legal tool to do that. The other problem which we need to tackle, in tandem with the book famine, is the technology gap.

For too many people, especially in developing countries, technology which will give them access to content is either not available, or not affordable. Last year in Hong Kong, I called for technology to meet the 3 As test: it needs to be accessible, available and affordable. If any one of those three is missing, then blind people and others withprintd disabilities will still be losing out.

We need to be supporting initiatives which promote low-cost or no-cost technology. A couple of examples (but there are many others) are the NVDA screen-reader and the Transforming Braille initiative. NVDA is a powerful open-source screen-reder which provides access to a PC to people who have traditionally been expected to pay hundreds and sometimes thousands of US dollars to acquire the necessary technology. Transforming Braille is an international initiative which is planning to bring a simple electronic braille reading device to market for a few hundred US dollars, rather than a few thousand which is the norm right now. If initiatives like this, and many others succeed, the possibilities which Marrakesh is opening up as we speak will become a technical reality as well as a legal one.