

Smart Technology: Opportunity or Distraction?

by James Hodges





The twisted irony

It is irksome to some, but young people today see and experience the world through their mobile phones and tablets. Using this 'smart technology' they listen to their music, they navigate the maze of social media, tag their friends on their geotagged photos and hashtag the latest #trend. Oh and supposedly make phone-calls too. This is not another bash at technology but rather a testimony of how we as outdoor professionals can incorporate this love of technology into our course delivery. The twisted irony here is that by embracing technology within outdoor learning and then realising in doing so, we are actually empowering and enabling this 'technology generation' to engage with and connect more to the natural environment around them.

"Controversial?"

The ongoing debate

Schools have embraced the use of technology for the education of young people arguably not without its day to day problems in the classroom and let's be honest there is some vehement opposition but smartphones and tablets reportedly enhance the educational experience of pupils. There is research out there that suggests the upsurge in smartphone ownership is helping to feed teenagers' passion and motivation for learning and the same study found that young people think digital technology makes learning more exciting. Some of the positives around using technology in education include an increase in students' innovation and creativity, it promotes individual learning and it prepares students for tomorrow's technological jobs – granted, these and other points were made in a pro-technology eMagazine but I am convinced these points are at least worth a ponder.

I have met and spoken with people, professionals in the outdoors who of course wouldn't argue against the importance of technology in education but would be of the opinion that mobile devices are best kept at home or back at the centre. And on the face of it, I can see what they are saying, yes surely, getting young people outdoors and back to nature, back to the simple ways of life and disconnected from the fast paced, one-click-away world that

we all now live in, is part of the appeal of our outdoor courses? Part of the draw is to experience some of the rare peace and quiet of the natural environment? Perhaps you are nodding but perhaps by forcing this separation between technology and learning in the outdoors, we could be missing a trick?

I feel like advocates of using technology in the outdoors are few and far between but I for one am passionately promoting this in my own practice, and I hope that others too are inspired to push the boundaries a bit in their own centres and work environments. It's high time the industry acknowledged technology is here to stay, perhaps we should therefore embrace it on our courses? And, if we do so, let's discuss it, let's share what we are doing, what works, what doesn't work and how this technology can add real value to our 'practitioner's toolkit'. Of course our technology generation have some 'issues' with the tech/environment balance thing; a nod was made to this in a very balanced and well written article on the John Muir Trust in the Horizons Winter 2014 Edition (Ruth Flynn). But let's use the things that these young people can do to help them embrace some otherwise unfamiliar surroundings and unwelcomed activities. Of course an app won't help a young person to learn how to tie a knot or build a den there are some things you can only learn when unplugged, offline and hands-free. Just doing it empowers, teaches and fully immerses young people into the natural environment in probably new and exciting ways; but can experiential learning be assisted by technology that engages the learner, draws them in, gets them involved, can technology contribute to the process of learning new skills and reflecting on that experience?

"I am convinced"

First and foremost I am a practitioner who believes in experiential learning and I care about the learning and development of the young people on my courses. I have been very fortunate that my employer The Outward Bound Trust has enabled me to explore the use of mobile devices and smart technology on my courses; in Summer 2015 I secured a small grant to support my work through the COBWEB project and alongside this, the Trust decided to invest in android mobile devices to help me run my courses and figure this stuff out for myself. As such, I have seen this work in practice and I am fully convinced that technology is a tool that used appropriately and in context can add value to my courses and assists that experiential learning process.

Getting started

Between January and November 2015 we piloted the use of a smartphone app to record environmental data in and around the Dyfi Biosphere Reserve as part of the Biosphere Survey project ('OBBSurv') at Outward Bound Aberdovey. This work was carried out as part of the COBWEB project which focuses on the creation of a citizen observatory for environmental data that can be used for policy-making; as you can imagine this encompasses all manner of data and projects and can be tailored to a great range of curriculum requirements and activities carried out by many different organisations. Leading up to the OBBSurv Project, I had to invest a great deal of effort running internal workshops and demonstrations within the Centre to gain interest and garner support amongst the instructors for the use of data collection apps as part of everyday course delivery. The response was not always positive or enthusiastic but there were raised eyebrows at least in a 'I'm curious tell me more' sort of a way.

There is a free and opensource platform fully operational at date of writing called Fieldtrip GB which we used in



these initial stages (this software was eventually built upon by the COBWEB developers but it can still be accessed and trialled independently). Fieldtrip enables the creation of bespoke data collection forms to be used on an app in the field; workshops were run to describe the process involved including the downloading of data afterwards, use of Dropbox as part of that process and how to visualise the data and tracklogs in Google Earth.

"Let's figure this out together"

If you are thinking of introducing technology in this way amongst your peers or with your centre staff, bear in mind that buy-in is the most important thing in the early stages and there will be questions and most likely dubious minds that will need some convincing. My advice would be approach it not from a 'know-it-all' position but a joint, peer-to-peer 'let's all figure this out together' approach (I certainly did not know it all). It didn't take long for creative juices to flow at my internal workshops and soon other instructors came up with their own ideas.

Getting on with it

A number of my colleagues used the COBWEB app and mobile devices as part of their 'tool kit' to guide their groups of around 12 young people at a time, along with school teachers exploring and collecting environmental data for the John Muir Award. These days included recording environmental data observations for specific environmental themes (woodlands, hills, rivers and beach); data was collected on trees and upland vegetation and strand-line debris along the Dyfi estuary near the centre. Initially the process was assisted by local experts and then eventually, these courses were self-delivered, building on the experience, confidence and skills developed by the instructors through the process.

"Direct links with John Muir Award objectives"

The data collected was made available to partner organisations and contributed to environmental monitoring and data management within the Biosphere Reserve. The young people loved this as it provided important and well-received context to the activities and the data collection campaigns and they felt that they were contributing important data to the protection of our environment. This was reinforced by the instructors as they informed their groups that their work was 'giving back' to the environment and helping those organisations charged with managing, protecting and conserving the natural environment to do so. So by partnering with these experts to deliver these courses using technology to efficiently

gather data that can easily be digitally viewed, analysed, stored and shared, there were a great many positive off-shoots and as I have mentioned already, a direct link with the John Muir Award objectives.

COBWEB commissioned a number of 'co-design' projects within the Dyfi Biosphere Reserve in Wales and OBBSurv was one of these. The citizen observatory contains a 'survey designer' area where you can essentially 'author' your own apps – that means create your own forms or surveys that you access from within the COBWEB app itself. In addition there is a portal, within which you can view available surveys, join a survey or create a new survey but it is also possible to export the data and view it in other viewers for example if you want to use Google Earth or if your school is signed up to Digimap for Schools. COBWEB is all about being free and open source and when the project is finished, the code base will be available to all (but be advised, you will need to know developers who can work with the code to make it do what you want it to do). There are other options currently available and I will have run a workshop in May demonstrating these as potential free platforms to use to create your own surveys and manage your data.

Sharing our experiences

Institute for Outdoor Learning CPD events have been an interesting chance to see how others react to the ideas we have been developing and I have presented at the North East Duke of Edinburgh Conference and IOL North West Region Conference and Events in 2015. The ideas were well received and there is clearly a desire and a momentum to be doing more of this in our sector.

Looking ahead:

- what will our sector future Best Practices be in terms of using technology to share knowledge ?
- how can we be pro-active about appropriate use of technology in outdoor learning ?
- how do we share and disseminate ideas about using technology in Outdoor Learning?

Outcomes and Feedback

Outcomes have been overwhelmingly positive, with teachers and group organisers being genuinely delighted, intrigued and enthusiastic. At OBT we have been able to offer a greater scope of content to the delivery of our environmental programme largely as a spin-off result from connecting with local environmental organisations within the Dyfi Biosphere Reserve. Without a doubt being able to incorporate activities into my programme where the students have to use mobile technology to find something out



about their surroundings and record that serves to engage them fully into that process. As a result I believe I am increasing the impact of that learning process probably because the student is using something that is familiar and relevant to them. I have included some quotes below from students, staff and instructors.

The project was well received by our clients, young people and instructional staff. It has prompted some useful discussions with visiting staff and produced great feedback from students including the following quotes:

- *"it's very good for exploring and discovering nature"* Jenayah aged 10
- *"we used the COBWEB app to identify plants not just for our knowledge but for others around the world too"* yr10 pupil
- *"we could use this app as part of our environment club back at school"*
Arjan aged 13
- *"I've been coming to Aberdovey for the last 8 years it was great to get to try something new"* Teacher
- *"The COBWEB app really gave focus to the day of learning; the students took their new knowledge and used it to provide data that we can use within our woodland management plans."* Rob Goodsell Woodland Manager
Centre For Alternative Technology, Machynlleth, Wales
- *"...every teacher has been really impressed by COBWEB and keeps telling me it's a great way of promoting sustainability and conservation of any environment."* Instructor Outward Bound Trust, Aberdovey, Wales
- *"Cobweb has proven to be a fantastic citizen science tool. In a relatively short time, pupils have developed an understanding of the natural system at the Dyfi NNR. The data will play an important role in managing the reserve for years to come."*
Leigh Denyer, Education Officer, Natural Resources Wales (NRW)

I'm no academic or social researcher and please don't call me for your IT Helpdesk requirements, I have just seen for myself how young people actively engage with my courses when I introduce the use of mobile devices at various points. They are quick to ask what the challenge is and get stuck in and yes ok, they will probably then immediately take a selfie. But that's actually ok. Let's allow them to remember those positive memories, those high-point summit feelings and the achievements involved in getting there the best way they know how. I hope there is hunger for more of this in our industry and a desire to at least get this conversation started about how we can progress this sensitively and effectively to enhance and add value to the amazing experiential learning courses and programmes that are already out there. ■

References:

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About the author:

James Hodges. James lives near Cader Idris in Snowdonia with wife Crona

and their two little girls. An Outdoor Learning and Youth Development Practitioner, James uses smart tech as part of his practitioner's toolkit supporting his work with young people in and outside of mainstream education. James is APIOL and working towards his LPIOL focusing on the uptake of mobile technology in the outdoor industry. This is something James is passionate about and he is very happy for others to get in touch to ask questions, learn more and share their experiences. James is an avid tweeter! Follow him on @JHodges_OBT.

Photos: Anthony Smith, Stephanie Ties, Chloe Griffiths, Crona Hodges