



Report on Intel Visionaries Workshop & ISTE 2016

Intel Visionary Workshop

The Intel Visionaries event was held on 24-29 June 2016, in Denver Colorado in the USA. This year's event was themed *STEAM, Inspire What's Inside* and did not disappoint as we dived into trending topics in education such as inspiring creativity, global collaboration, empowering girls, programming, Makers and apps for teaching and learning during the Intel Workshops and extended to ISTE 2016. SchoolNet's, Omashani Naidoo attended the event as Intel's South African Visionary.

Intel's Lead Educator Advocate, **Ms Elizabeth Crawford** opened the workshop with a welcome and a recap of the Visionaries programme, its mission and vision.



The first speaker on the programme was **Mitch Renswick** (@mres), Professor of Learning Research and Director of the Lifelong Kindergarten group at the MIT Media Lab. For those of you that need an introduction to Mitch Renswick, his research group collaborated with LEGO Company on the development of LEGO Mindstorm Robotics kits, and it developed the Scratch programming software and online community used by millions of young people around the world.

His presentation titled *Sowing the seeds for a more creative society* and focused on incorporating projects with purpose into teaching and learning activities. Too often we get learners doing things that get everybody doing the same thing for evaluation purposes however we miss the moments where learners could create something to find solutions to their own problems. He advocates that Scratch allows young students to do exactly that and expands on the four Ps he thinks are most needed when using Scratch or learning in general.

Projects: This is key as the project is the basic unit of scratch. A project cannot be about coding for the sake of coding and should include real life situations. We need to move away from the coding where

learners are trained to move something from one point to another and rather move toward puzzles, crosswords and most importantly how they tell their own story, imagining problems and then finding solutions to them.

Passion: (and purpose): One's passion is the driver for completion of a project where persistence becomes the norm and learners learn to persevere in order to solve their problem. Extrinsic factors such as badges or gamification will provide the initial kick-start to the process, however this is often short-lived and does not provide sufficient motivation for completion of a project. To become engaged you need a deeper understanding or passion or caring about the "thing" they are learning.

It is the intrinsic motivation that is needed rather than extrinsic which only engages them for a short time.

Peers: The best way to learn is to learn with others. Feedback, tutorials to help others learn become part of how you work. Too often we think about learning (Auguste Rodin's *Thinker*) as solitary; whereas you learn best when you interact with other people. Learning is not about imparting knowledge but more about co-creating and collaborating and social events, for example Maker Faires, encourage the culture of making and learning where social interaction provides an avenue for learning to be articulated and shared.

Play: It starts off as fun, however playing soon becomes a process of experimenting and testing new concepts and boundaries. Mitch is inspired by Seymour Papert and his concept of "Hard Fun" (<http://www.papert.org/articles/HardFun.html>) which encourages the playful spirit to go beyond what they know and go seeking more.

For more about his research and publications, see <http://www.media.mit.edu/~mres>

The second speaker was **Ms Beatriz Arnillas** (@barnillas), Director of IT-Education Technology, in the Houston Independent School District (4th largest in the US). Their district has a 1:1 device to learner ratio in all secondary schools. She noted that devices are still not used in engaging ways and her team continually brainstorms ways to afford teachers opportunities for professional development to increase their awareness of what can be accomplished when ICTs are integrated into their teaching. A further challenge is that teachers find it difficult to understand the State Education policies. Her team developed 6 online modules which teachers can complete in their own time, at their own pace. They also have taken the education policies and rewritten in easy language for teachers to visualise the policies in practice. They are also focussing a lot on digital wellness and in particular privacy of information. See the digital safety resources here [Houston ISD-Digital Safety Resources](#)

The Intel Visionaries were split into two groups and were required to describe in three minutes, their favourite "There's an App for That" using a teach meet style presentation. Some of the apps included:

[SnapChat](#)- a communication tool designed to make conversation more spontaneous, visual and fun! Snaps are picture or video messages taken and shared with friends on Snapchat in real time.

[Lego Movie Maker](#)- This app allows your students to bring their LEGO characters to life. This fun, kid-friendly app on IOS allows users to create a custom LEGO stop-motion movie.

[TinkerCAD](#)- This is a simple, online 3D design and 3D printing app for everyone. Can be used by designers, hobbyists, teachers, and kids, to make toys, prototypes, home decor, Minecraft models, jewellery – the list is truly endless!

[Plickers](#)-Teachers print out card sets and then use their phones to easily conduct formative assessment when there is no/ limited learners devices in the classroom.

[Scratch](#) – Want to teach kids coding? With Scratch learner can learn to program their own interactive stories, games, and animations — and share their creations with others in the online community.

[Ganster](#)-This Google app allows you to share and manage projects on Google Drive.

[Google Science Journal](#)- This app allows you to gather data from the world around you. It uses sensors to measure your environment, like light and sound, so you can graph your data, record your experiments, and organize your questions and ideas.

Next on the schedule was **Ms Julie Lindsay** (@julielindsay) who is a global collaboration consultant, innovator, teacherpreneur and author who is currently an online Quality Learning & Teaching Leader and Adjunct Lecturer for the Faculty of Arts and Education at Charles Sturt University in Australia. She has lived and worked in a number of countries in Asia, Africa and the Middle East. She has a passion for online connections and is the CEO of Flat Connections (<http://flatconnections.com>) where she advocates for teachers to work together to learn, lead and collaborate in a global context.

Marianthe (Anthy) Willams and **Jill Pierce** jointly presented on **OneNote Class Notebook**. Anthy is the Director of Technology, River Dell Regional schools and is passionate about leveraging technology to personalise teaching and learning experience of all learners. Her district is in its 10th year as a one to one district that transforms the way students learn by building a culture of innovation and individuality to meet the needs of the learner. Jill is the Chief Technology Officer for McMinn County Schools and is a 23 year veteran of instructional technology.

Anthy showcased how teachers build new learning experiences through OneNote Class Notebook and Jill featured how EdTech leaders use One Note from a district/ school leader perspective.

Shyda Rana is senior faculty member and coordinator of Army Welfare Education Society in New Delhi and she presented on Makers. The **Maker Movement** is gaining momentum throughout the world as it sparks the natural and powerful inclination of children to learn by doing. By embracing the lessons of Maker Movement, teachers are able to revamp the best student-centred teaching practices to engage learners of all ages. Shyda's presentation walked us through Intel's Maker strategy and how she was inspired by real life examples from other Visionaries.

Gareth Shaw is a Geography teacher and ICT leader at Ballyclare High School in Northern Ireland. He is a Microsoft Innovative Teacher and Expert Educator. Gareth presented on Minecraft which is an excellent tool for student collaboration and critical thinking based in a highly engaging 3D environment. His strategies for how Minecraft could be used for multi-disciplinary project-based learning was very informative, and he showcased examples of his school's extensive work in Minecraft.



Scotland's Kingussie High School Principal, **Mr Ollie Bray** is an award winning teacher, school leader and government advisor. His work is now focussed on improving educational outcomes for learners through the appropriate use of technology and outdoor learning.

Ollie is trying to drive an interesting curriculum for his learners and this includes a variety of courses on robotics, and leadership development as well as professional development for his teachers. He advocates for teaching to include both the outdoors and technology- he cautions that finding a balance is important. Too often technology rollouts focus on technology and teach kids how to use the tool rather than to learn using the technology. A virtual experience is no substitute for the REAL THING. Ollie uses Geocaching quite extensively where student learn scientific inquiry by gathering data from their own environments. For those of you interested, why not think about getting learners to find Geocaches. Explore the Geocache website <https://www.geocaching.com/play>

BrainPOP's, VP of Learning and Innovation, **Dr Kari Stubbs** and **Dr Julie Evans**, CEO of project Tomorrow gave an inspiring presentation on learning environments in BrainPOP that demonstrates how learners can increase their critical thinking, communication and collaborative problem solving. Teachers are easily able to purposely integrate STEAM learning activities in their classroom with an eye toward gender sensitivity and innovative learning. <https://www.brainpop.com/>



See more photos here- the fun <https://goo.gl/8smnIK>

ISTE 2016



The ISTE 2016 conference was held at the Denver Convention Centre and was well attended by over 14000 teachers, over 1000 professional learning sessions, and an exhibitor hall that showcased all sorts of technology gadgets, teaching tools and resources.

The opening plenary was awe-inspiring and in fact for someone who has never attended an ISTE event, it was jaw-dropping experience with its "rock concert" type atmosphere and delegates from 71 countries.

Dr Machio Kaku, a futurist and theoretical physicist, was the opening keynote and his witty and informative presentation that focussed on advanced technologies that can uncover the mysteries of the human brain. The New York Times best-selling author discussed neuroscience breakthroughs and shared from his latest book, The Future of the Mind. Dr Machio's inspiring presentation drove home the point that the first wave of the industrial revolution brought money and power, the second wave, 100 years later, there was electricity; the third wave was the advent of technology and the fourth wave will be Artificial intelligence, Nanotech, wearables and more of the internet of things. As educators our role, therefore, is to NOT to prepare learners for life in the 1950's but rather learners for the world that requires critical thinking, experience and creativity.

This vast conference also included playground sessions and poster sessions. Playground sessions were scheduled hands-on activities for a limited number of delegates who could visit various learning stations during the allocated time. Poster sessions were hosted by teachers and/or learners who described their experience of teaching or learning with technology. There was so much going on, and very difficult to choose what to go and see.

Microsoft launched Minecraft Education version, One Note Class Notebook was a huge hit, Google Expeditions was launched. Below is a few of the highlights.



Coding: An Introduction was presented by Google Certified Trainer, **Matthew Evans** and he described in real terms why coders are needed in the near future and provides easy to follow steps for how a teacher can get started with coding in the classroom. See coding resources via the QR code alongside.

His presentation is available here <https://goo.gl/rXUHMQ>

Amber Rowland and **Jana Craig Hare** presented on **Coaching LeaderSHIP: Strategies, Higher-Order Thinking, Instructional Technology and Partnership**. In this presentation, experienced instructional coaches shared “lifesaving” strategies and technology applications for empowering teachers to sail their higher-order thinking, personalized learning SHIPs. ☺ All the resources and matching apps can be accessed here <https://goo.gl/fSJRUY>

Google Apps for Education launched Google Expeditions where learners are able to participate in immersive 3D journeys. <https://www.google.com/edu/expeditions/>

Susan Oxnevad’s list of ISTE resources <http://bit.ly/28ZWOxc>

All the ISTE highlights can be sourced through twitter #ISTE2016 and the ISTE website <http://www.iste.org/explore/conference-news>



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