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ICT in Practice

Transforming education through sharing knowledge and practice
Created by educators from around the world

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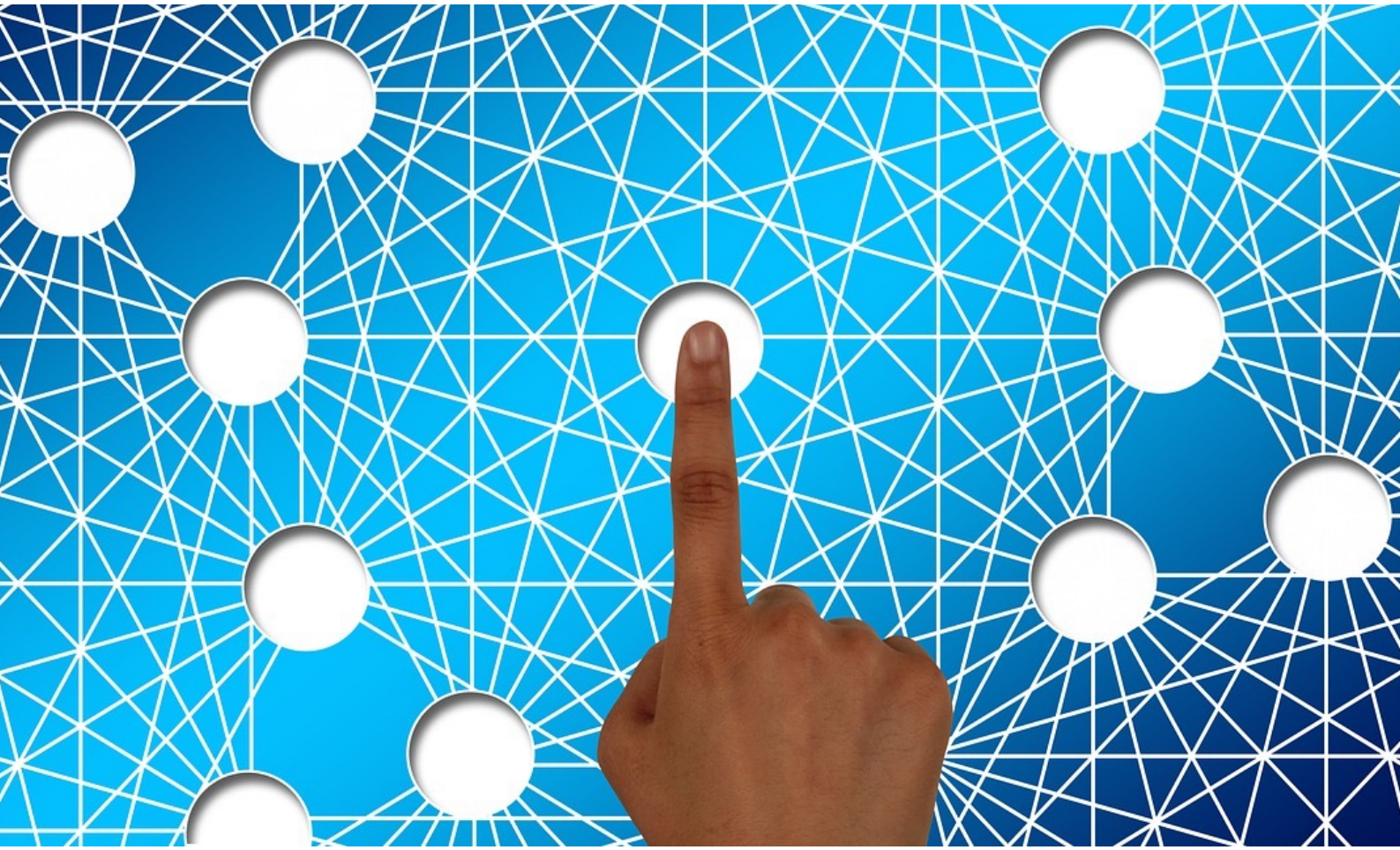

"… these individuals bring intelligent information about the latest ed-tech in a minute…er more like 3+ minutes. The show isn't your typical dry commentary about what we are currently being bombarded with so many developments for education, but a lively discussion, which at time includes guests. Sometimes they bring the challenges, other times the great things. The one thing that strikes me is although their conversation is unscripted, it flows with pithy information to help ease the anxiety of trying to do it and figure it all out. You really get a sense of who they are, authentic, caring, hilarious, and smart."
— BAM Radio Network

Reviews In This Issue:

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FROM THE EDITOR

Serendipity. I like the word's etymology and meaning. Since Horace Walpole's coining of the concept in his 1754 work *The Three Princes of Serendip* the term has always held the promise of good fortune unsought for. And so it is for this issue of *ICT in Practice*.

I like to build issues around themes yet had none. As publication date drew nigh, low and behold, the articles all revealed the common thread best summed as, "all of life is relational." What we most remember of our classmates and teachers is not a particular lesson plan or concept, but how they cared for us and saw us in ways that other people had missed. Every child is just one caring adult away from being a spectacular success, and every teacher is just one idea away from a phenomenal new lesson that is sure to inspire.

So please enjoy these articles, reviews, and interviews that show us myriad aspects of relationship building. From Art Leiberman's walk-through on how to use Twitter to build one's professional expertise collegially to Maria Satiriou's invitation to participate in the pan-European InnoApps competition, you will be pleased with the many ways we can engage our social selves while we learn. And consider the many tools reviewed in this issue that allow us to work collaboratively, from TweetChat to Stories About Me. Use the power of the internet to connect teachers and students across the continents and generations.

Oh, and do not miss the simple, physical beauty of this great planet as it dances through another season. Whether entering Autumn or Spring, we are all traveling in the same direction of time. It would be a terrible shame to miss this season. It will never come again. So, download this issue onto your favorite reading device, find a great spot under a branching tree, and read to your heart's content. And thank you once again for joining us at *ICT in Practice*!

Chris Carter
Teacher, TechCoach, Editor, Reviewer
Concordia International School Shanghai
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Codeweek.UK promotes EU Code Week across the UK

Website: www.codeweek.uk
Twitter: @codeweek
Facebook: https://www.facebook.com/Codeweekuk-475492319315384/

The fourth **EU Code Week** took place from15th-23rd October 2016. It brought together children, teenagers, adults, parents, teachers, entrepreneurs and policymakers in events and classrooms across not only Europe but other regions of the world to have fun by making things and doing stuff with code.

Codeweek.UK not only represents **EU Code Week** in the UK, but also promotes other opportunities for people to come together and learn to code. Many coding events are organized during this week in different parts of the United Kingdom by schools, libraries and community groups.

The **Codeweek.UK** kick off event took place at Dragon Hall, in Covent Garden on Friday 14th October. Over 100 children from primary and secondary schools with their teachers attended many hands on workshops and had opportunities to try out new programs and devices.

Codeweek.UK was sponsored by Discovery Education, one of the UK's leading providers of digital content and educational services to schools. The Discovery Education Coding service provides complete support for teaching coding in primary schools and includes lesson plans, video tutorials and comprehensive resources for Block Coding, Python and HTML.

Code Week.UK was fortunate to receive prizes for the schools from Codio and Hue HD. Codio provided us with 3 class sets of Codebug kit and Hue HD with an HD Pro camera and Hue animation studio. These prizes were given to schools at the end of the event.

Yasemin Allsop Senior Lecturer in Computing at Roehampton University and UK Code Week Coordinator said:

*"**Codeweek.UK** aims to raise and celebrate the importance of coding activities by connecting communities around the UK. Learning to code helps us to make sense of how things work, explore ideas and make things, for both work and play. What's more it helps us to unleash our creativity and work collaboratively with wonderful people both near us and all over the world".*

She also gave news of more exciting Code Week UK events in the near future. She added:

"We cannot wait for a year to organize events, we need to provide more opportunities for young people that are coming from disadvantaged circumstances in developing their digital skills. What a better way than giving them the chance to code together, learn together and have fun together"

We are grateful to Codio and Hue HD who provided the prizes for the codeweek.uk 2016 event.

We would like to thank everyone involved especially our partner **Discovery Education** sponsoring codeweek.uk .

Codeweek.UK also provides support for everyone who would like to run a coding event in different parts of the UK. If you need any support, get in touch with the team at info@codeweek.uk

Twitter Ain't Just For Twits

by Art Lieberman

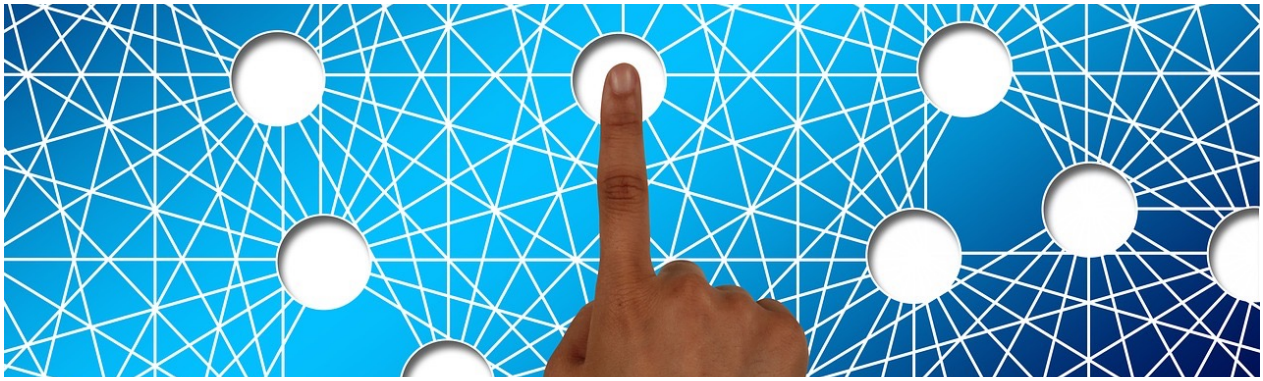
I'm not sure what a Twit is, but it's not nice. And though I've met a few nut jobs on Twitter, mostly, I find passionate teachers who want to grow and help others do the same.

I remember the first time I tried Twitter. I did not get it. I felt like a child looking for an ice cream cone at a veterinarian convention. So I panicked, ran out, and didn't come back for a long time.

Then, a friend (on Facebook) explained the whole hashtag thing to me, and a little bit of light crept under my just-opening eyelids. At the time, I was writing a tech blog for my district (on Posterous which is a whole other story). Through the blog, I discovered this little hashtag (#edtech). And I was hooked! Every day, I was able to find excellent little nuggets for my small blog audience on Twitter at #Edtech. (Right now, I just searched #edtech on Twitter and found it to be alive and well) I gradually drifted away from my #edtech mania after Posterous shut down. See, that zapped all my edtech energy right out of me for a while.

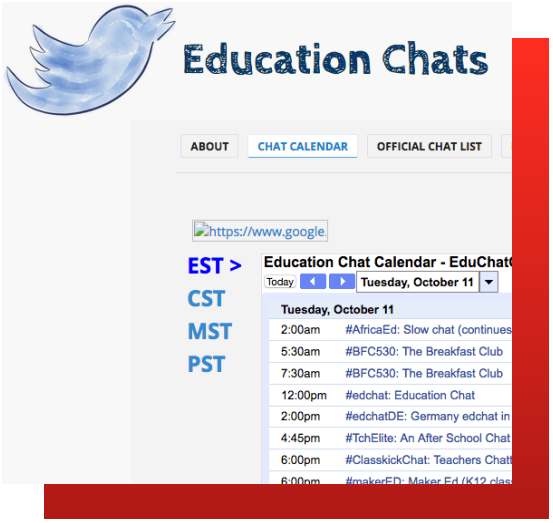
But then, I found some other bright lights on Twitter. This really went into high gear for me when my friend Sonja told me about the #tlap (Teach Like a Pirate) chat. Oh my goodness! That was like teacher candy for me. Every Monday night, people from all over the world (but mostly N. America) get together and do a Twitter chat. The topic is usually closely related to this question: How do we keep lessons relevant?

The chat swims with authors, administrators, and teachers, new and (umm) seasoned. Many a Monday night after a day of teaching, I've thought, "Ouch, feel like I've been skinny dipping in an alligator pond." I get in the chat thinking, "I'm just going to lurk (that's Twitter lingo for just watching a chat without adding your own tweets)." Then, after I read a few exciting tweets, I feel refreshed. I jump in and add my two cents. It's like the best of any professional development session, ever.



That's how it affects me.

And #tlap is a fast chat. On a heavily attended evening, there is no possible way to really keep up with everything. None. You just jump in and participate where you can. Though sometimes a nice person will "record" the chat and post a link to the whole thing when it's done. Still, that particular chat might not be your cup of tea, but there are hundreds of chats to choose from. Here is an Educational Chat calendar bit.ly/educhatcalendar.



Some that I've enjoyed:

- #ntchat (new teacher)
- #scitlap (science - teach like a pirate)
- #sblchat (standards based learning)

And that's just Wednesday evening. These are great also…

- #whatisschool
- #mschat (middle school)
- #ditchbook (digital learning)
- #LEARNlap (learn like a pirate)

The Sat Chats - Leadership

- #satchatoz (saturday chat Australia)
- #satchat (Saturday Chat)
- #satchatwc (Saturday Chat West Coast)

And there are many, many more. Some are grade specific like #5thchat. That's 5th grade chat. Some are subject specific (#ElemMathChat). If you click on this calendar link, I bet you'll find something that is of interest to you. If you want to see what a chat looks like before you try one, this is a video of one. By the way, in a "chat" you don't hear people's voices. All of the communication takes place in a series of tweets, but on this video, you'll hear my voice as I explain what's going on. Here's a link to the Youtube video https://youtu.be/x4CVDgmLksU.

Do this to get started doing education Twitter chats:

1. Look at the educational chat calendar. bit.ly/educhatcalendar

2. Do the timezone math. I like this converter: http://www.timezoneconverter.com/cgi-bin/tzc.tzc

3. Sign in to Twitter a few minutes before the chat and search the chat's hashtag. Like if I want to go to the #satchatoz chat, I would try to be on twitter say five minutes before it starts.

4. Click on the "Live" tab at the top at the top of your Twitter feed.

5. Usually you can figure out who is moderating and the topic by reading a few tweets.

6. Then, I open up several tabs. One to follow the moderator. This helps when you want to know what the latest question is in the chats. Most chats pose 6 to 8 questions in an hour. It's easy to be in the thick of the chat and miss a question.

7. Open up a browser tab for your notifications. That's how you can quickly see how others are responding to your tweets.

8. When you want to tweet something it will look something like this: "#satchatoz A1 - All interactions with students should be handled with respect and dignity." The hashtag makes sure that everyone in that chat can see my tweets even if they don't follow me. The A1 shows that I'm answering question number 1.

9. As the chat moves along, it's a great time to follow people when you like what they say. They will usually follow you back. I usually look at their profile first to make sure they are an educator or someone else I want to follow.

10. Some chats last for 1 hour. Some are 30 minutes. Some are every week. Some are every other week. Some will go dark for the evening due to a holiday.

11. By the way, if a chat has been cancelled for the evening, others will sometimes pick up and start the chat anyway. I've done this a number of times and it's always a fun time.

12. One thing I like to do during a chat is ask people questions. If I like what they are saying and it requires more words than a chat will allow, I'll ask for a link to a blog or a video. Most of the time, they come right back with it.

Try at least two or three different chats when you first get started. You might not like it the first time because you might not quite get what's going on. Soon, though, you'll find it easy. I like fast chats, but have very much enjoyed some slow ones too. The speed is all about how many people are on the chat. More people chatting = faster chat. (By the way, anyone can start a chat at any time. If a group of people use the #hashtag at the same time, that's a chat.)

Here's what you can expect when you start chatting, you'll get to know more educators who share your passions. You'll also get to know some of the leaders in specific niches in Ed.You'll get challenged with some new ideas. There are some that always make me feel uncomfortable (in a good way). Some are always inspiring.

I've made several friends on the chats. In fact, I have no doubt that I could drop in on them at home and have an instant face to face relationship. I have heard some argue that people don't make real friends on social media. I think it's an argument worth listening to and responding to. It's a conversation that needs to take place. But I have friends that I only know on Twitter.

Here's what I'm saying… Get thee to Twitter. Skip over the Kim Kardashian and Justin Bieber stuff. (Hey, the nice thing is you get to follow whomever you want. You craft Twitter to be what you need it to be.)

I hope to see you on the chats!

About the author:

I'm Art Lieberman and I've used my 22 years of teaching experience teaching Science, Social Studies, Language Arts and Math. I also get to direct shows with kids. My favorite ones were when we paired a one act play with improv on the same night.
I am also the author of 62 Mistakes Teachers Make.
I jump out of bed with a big smile on my face each morning because I get to help men and women teach with joy.
My blog is StressRelief4teachers.net. You can find my articles and podcasts there.
And look me up on Twitter. My handle is @artfling.

Audio Podcast Link

TweetChat Makes TwitterChats Easy As Pie

Overview

TwitterChats or TweetChats have become very popular in the last few years. If you are not familiar with them, then check out Art Lieberman's article in this issue. Somebody "leads" the chat by having a list of questions at the ready that they push out about every 10 mins or so. Anybody in the world is welcome to join and contribute. In practice, this is only the people that are aware of the chat and are passionate enough to get involved. The topic, whatever it is, centers around a common hashtag. That is how you are able to track what people are talking about; even if you don't follow each other on Twitter. Now, tweetchats are fun and nerdy, and with just the standard Twitter client, a little annoying. That is why I am such a big fan of the website Tweet Chat. TweetChat lets you easily keep track of the conversation hashtag all on one site. No need to filter through your own Twitter feed to easily chat.

TweetChats has some super helpful features too:

- Auto shortens URL for you if you share them
- Has a buffer feature where Tweets come in a batch of five to make it easier to read
- Automatically ads the hashtag for you. Love that one!
- Let's you highlight, or even block, participants.

Concerns

None, except for the proviso that what goes on the web stays on the web. That is why it is called the "web."

Sample Uses

- Have a chat with a group of educators who care about a similar topic. Example, #ReadingLiteracy, or #Robotics.

- Have your students enjoy a chat with another group of students somewhere else on a similar topic #sharks

Commitment and Learning Curve

Low. Wow, this is easy to use. Takes about 5 mins to figure out. Longer though if you are new to the idea of Twitter or TweetChats

Best for ES MS or HS?

MS & HS

Cost

Free! Can't find a way to pay for it. There might be one somewhere, but not easy to locate. That is ok with me.

The Power Of Presence

by Dennis Grice

Networking. Connecting. Communicating. Collaborating. Learning. Close your eyes and create a image in your head for each of these words. Go ahead. I'll wait.

If you have anything to do with education in 2016, I'm willing to bet that at least three or more of those mental images contained a glowing screen from a computer or mobile device. It's okay. I'm not trying to make you feel guilty or anything. I love technology. I depend on it to help me stay connected with amazing educators across the globe. I regularly check Facebook, Twitter, WeChat, Google Plus, and several others to see what amazing things my teacher friends are doing and what they are learning. I use these tools to ask and answer questions, share what I've learned, and offer encouragement and support. Most importantly, I use them to maintain relationships.

In my office, I am fortunate to work beside Chris Carter. Chris is an amazing teacher and tech coach. Together we produce a weekly podcast in which we both have fun exploring various topics regarding teaching, learning, technology, and life in general. (http://21clradio.com/category/edtech-roundtable/) If you've ever listened to it, you know our one recurring theme: "Learning is all about relationships". Students - and teachers - don't care what you know until they know that you care. Or put another way, you've got to take care of Maslow, before you can start working on Bloom.

Establishing relationships is first and foremost on our agenda at the start of every school year. Those eyes are watching are watching us. They are observing us and testing us.
"Does this person care about me?"
"Are they all talk and no follow through?"
"Is he/she real or fake?"
"Does he/she know my name?"

Making sure students and teachers feel safe and have a sense of acceptance and belonging - this is vital to the work we do. Whether we are in the classroom teaching students, or supporting teachers as an instructional coach, establishing and maintaining that relationship is key.

Online tools can be useful in supporting these relationships but they can only do so much. A tweet, a direct message, a Google Hangout; these cannot replace a handshake, a high-five, a hug. I can't read your body language in an e-mail, or tell if your eyes betray you on a conference call. There's a level of trust, belonging and acceptance that can only be reached face to face.

When I think about the strongest personal and professional relationships I have, they all have one thing in common. These are people I have met and spent time with face to face. We have shared the same physical space, shared thoughts and ideas, shared coffee and meals. These face to face interactions do more for establishing and strengthening a relationship than what can be achieved electronically. I feel much more a part of your life, when I know the real face behind the avatar. When I read your tweets I can hear your voice. It strips away the anonymity of online communication.

If you're taking my online class, it's very easy to not take it seriously if you've never met me in person. There's just a level of accountability and responsibility that's not present when I'm not present.

It's true in coaching as well. Email exchanges can often get emotionally charged - especially when teachers are struggling with technology. If at all possible, in those situations I find it works so much better to diffuse the situation if I just stop by the room. Being physically present sends the message that I care and that you are important. (Remember Maslow?)

Consider the interactions you have with Facebook friends. Compare your conversations with those you have seen recently with those who you haven't seen for one, two, or more years. If electronic connection is all you have, my experience has taught me those relationships tend to fade and become more distant.

In June I finished my first year as a technology coach in China. This summer it was important to give my personal and professional learning network connections an energy boost by purposefully making time for face to face connections. I travelled to the ISTE conference in Denver with just this agenda in mind. For me, attending ISTE was not about the conference sessions as much as it was about re-connecting personally with colleagues, mentors, and friends.

Seeing those friends in person - even for just a few minutes - strengthened those relationships and added life and energy to the online communication that will sustain those relationships for the coming year when I return to China.

Online presence is important, but for building and establishing relationships, face to face networking, connecting, communicating, collaborating, and learning have a power that cannot be matched - at least until we invent a working holodeck.

Dennis is a Digital Literacy Coach at Concordia International School in Shanghai and has more than 20 years experience working with students, teachers, and technology. Dennis is a Google Certified Innovator, Discovery Education Guru, and has shared his passion for integrating technology into curriculum at numerous workshops and conferences. He sees his mission is not to teach technology, but to help teachers use technology as a tool to help students learn and show what they know. He has a passion for digital storytelling and believes that teaching is a spark that ignites curiosity and develops a lifelong love of learning.

Audio Podcast Link

2JCL RADIO

Stories About Me Brings Social Stories To All

Overview

The Stories About Me app came about from a void in the marketplace for a social story builder app that could easily back up stories to ensure against loss and simplify the creation process for users with special needs.

On the iPad Social Stories are made by blending photos, recorded voice, and text to create audible picture books. They are useful for preparing kids for new or challenging situations. They also are great for teaching generalization, which can mean acting certain ways in certain situations.

Stories About Me is nice app for anyone to relive fond memories. It's great for specialists such as Speech Pathologists to use with clients with special needs as well. Audible feedback of pronunciations with visualizations can be a great way to enhance speech and language improvements.

You can backup your creations with the built in Dropbox integration, so even if you lose the app, the stories can always be re-synced.

Rather than many apps selling with preloaded stories, with Stories About Me everything is user created. This magnifies the usefulness of the app to the bounds of the creativity of the teacher or parent.

Concerns

None

Sample Uses

- Create a story with narration of the highlights of the family trip to Disneyland.
- Create a story for your child to show what it's like to go to the dentist.
- Take pictures and narrate directions for expected behaviors when transitioning to the lunchroom (sped class).
- Highlighting sequencing of events, use a social story to teach a child the steps to properly brush their teeth (open lid, squeeze tube, apply paste, water, brush, rinse, etc).

Commitment and Learning Curve

Time investment into creating stories can get heavy depending on how many pages you want to include. As far as learning to use the app, it's quite simple.

Best for ES MS or HS?

All!

Cost

$3.99

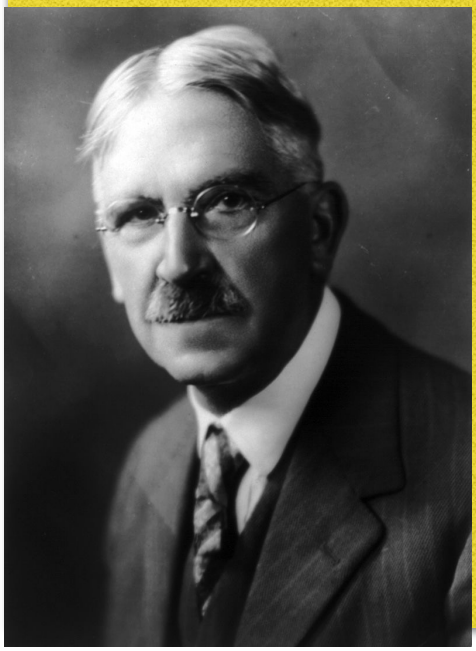
Website Link

www.limitedcue.com

Does technology improve learning – the value of constructivist approaches to technology-based learning?

by Yasemin Allsop

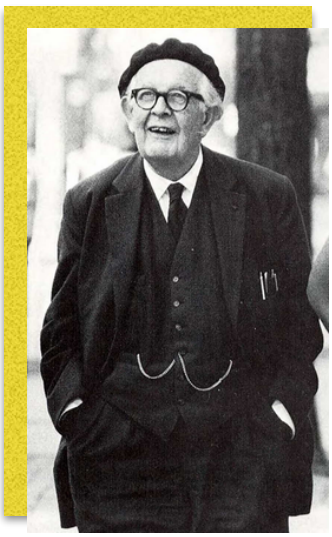
What is constructivism?



John Dewey, Early Constructivist
Courtesy of the Library of Congress

Constructivism is a learning theory that focuses on knowledge and explores how people learn. It suggests that people construct meaning through their interactions and experiences in social environments (Manus 1960). It also stresses the importance of prior knowledge in learning and how previous experiences shape subsequent actions. Learning therefore is all about learners adjusting their mental model to accommodate new experiences.

One of the key elements of the constructivist theory of learning suggests that children learn by doing. Children construct new knowledge about the physical and social worlds in which they live through playful interaction with objects and people. Children do not need to be forced to learn; they are motivated by their own desire to make sense of their world (Piaget, 1970; Piaget and Inhelder, 1969). According to Piaget, children learn when they are actively involved in the process (Slavin, 1994). The teacher's role in traditional classrooms is seen as the sole giver of knowledge and the student's role is that of a passive receiver. The constructivist approach encourages children to take an active part in learning by using their ideas and interests to drive the learning process. The role of the teacher in this model is to support children when they need it and guiding them to take control of their self-directed learning experiences (Ringstaff, Sandholtz and Dwyer, 1991).



John Piaget, Constructivist
Public Domain

Research has shown that children learn when they design and create things, especially when things are relevant to them (Resnick, 2002). The following questions will be reviewed in this essay. Can children design and create using technology tools and learn in the process? Can technology become a dynamic part of the constructivist learning environment when children use technology to develop new ideas and meanings?

The theoretical bases of constructivist explanations of learning

Constructivism was championed by John Dewey (1938) and Jean Piaget (1970) developed the theory in the context of child development, and Vygotsky who introduced the social and cultural influences on learning and their role in the construction of knowledge.

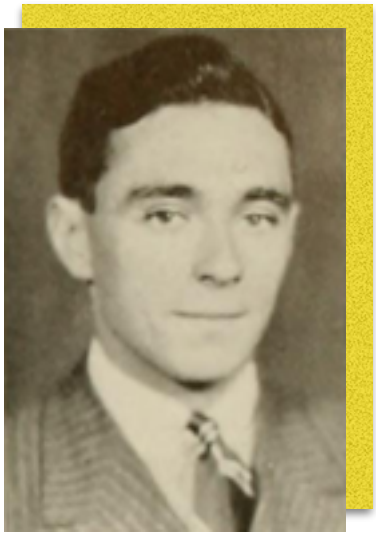
Dewey (1938) suggested that knowledge occurs only from situations in which learners have to draw them out of meaningful experiences. These situations have to be integrated into a social context, such as a classroom, where students can take part in engaging activities and form a community of learners who construct their knowledge together. He stresses the importance of context in learning for the learner and the opportunities to apply the concepts that they are trying to learn.

Piaget (1970) explained the learning process by schemas. According to Piaget (1970) a schema is an organized pattern or thought that is used to adapt or explain new experiences. He proposed three schemas:

1. Assimilation: Placing new information into schemas
2. Accommodation: Transforming existing schemas or creating new ones
3. Equilibrium - seeking cognitive stability through assimilation and accommodation

He suggested four sequential stages of psychological development: the sensorimotor stage (birth to age 2), the pre-operational stage (ages 2 to 7), the concrete-operational stage (7 to 11-12) and the formal-operational stage (ages 11-12 and beyond).

His theory of learning is based on discovery; in other words learning through play and experimenting.



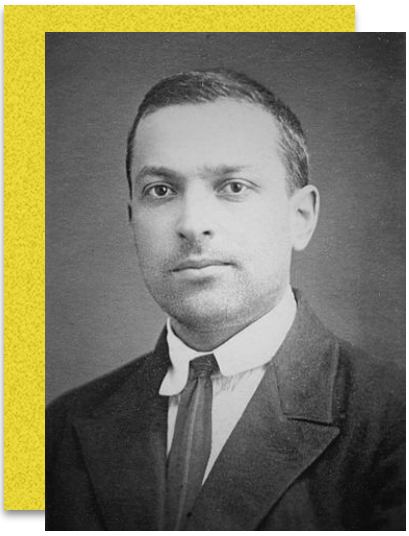
Jerome Bruner
Public Domain

According to Bruner, learning is an active process where learners construct new knowledge based upon their previous experiences. The instructor should encourage learners to discover the information by themselves. Children are likely to remember what they have learned if they discover the knowledge on their own. Bruner developed three stages of representation, which are enactive, iconic, and symbolic.

Enactive stage: In this stage the child experiences the world largely in the form of motor responses. Students may be able to complete a physical task better than a descriptive task.

Iconic stage: knowledge is stored in the form of visual images. When presented with new information, it is sometimes more helpful to people who are in the iconic stage of representation to have a diagram in order to visualize the concepts being taught.

Symbolic stage: knowledge is mostly in the form of symbols. Mathematical symbols possess meanings in mathematics and language. The symbol x and _ both mean multiply but can also have a different meaning in another discipline such as language.



Lev Vygotsky
Public Domain

Vygosky's constructivism (1978) is known as social constructivism because he stressed the importance of social context and culture within the learning process. He described learning as a collaborative activity and explained the significance the role of history and the social environment bear in acquiring new knowledge. Learning takes place when the children interact with the social environment and internalize their experience. Vygotsky (1978) suggests that cognitive development is limited to a certain range at a particular age. However, with the help of social interaction, such as assistance from a tutor, students can understand concepts that they cannot know on their own (Fountain magazine, 2004)

A final theoretical approach can be found in Seymour Papert's notion of constructionism. As Papert argued (1991), the notion of constructionism "shares contructivism's view of learning as "building knowledge structures" through progressive internalization of actions… It then adds the idea that this happens especially felicitously in a context where the learner is consciously engaged in constructing a public entity, whether it's a sand castle on the beach or a theory of the universe (Papert, 1991).

Papert (1991) describes learning as a reconstruction rather than as a transmission of knowledge. He suggests that learning is about teaching children to do something instead of teaching them about something such as teaching them to be mathematicians rather than teaching about mathematics. He emphasised the importance of children drawing their own conclusions through active experiments. He sees the teachers' role in learning as to create conditions for invention rather than providing ready-made knowledge.

He thought that the computer's role is to be used as a tool for the mind and 'idea processor'. He developed Logo language as a tool to improve the way that children think and solve problems. He suggested that this tool provided opportunities for learners to experience collaboration, visualisation, simulation and programming. 'He created 'Logo Turtle'; a small robot was developed for children to use it to solve problems. He insisted that use of simple program like Logo language can strengthen children's ability to learn knowledge.

He suggests that schools are well behind the rapidly changing society which is deeply shaped by changes in technology. By not keeping up with new technologies, students see school and the curriculum that it offers as irrelevant to their life; this may affect their attitude towards learning and schools as institutions. As a result of this, they may not develop these skills as they would be expected.

Principals of Constructivist theory – the changing nature of the learner, instructor, learning process, context and classroom

The learner within the constructivist approach is seen as a unique, complex individual who has unique needs and backgrounds. The background and previous experiences of the learner shapes the knowledge that the learner designs and discovers in learning process (Wertschs, 1997). The learners are active participants and construct new knowledge and understanding through their experiences and interactions with others (Glasersfeld, 1989). The interests, values and background of the learner are seen as an important part of learning because they engage the learner with the learning process.

According to constructivist theory, the role of the teacher is to provide learners with opportunities and experiences to learn. They take the role of facilitators which helps learners to gain their own understanding of knowledge (Bauersfeld, 1995). The main goal of the facilitator is to generate a change in the learner's cognitive structure or way of understanding and organizing the world. Instead of direct teaching, facilitator supports and guides learners to reach their own conclusions. They provide learners with a learning environment which will support and challenge their thinking (De Vesta 1987). They aim to give learners ownership of their own learning process so that they will be effective thinkers.

Social constructivism sees the process of learning as an active social process. In his theory social constructivist Vygotsky talks about "Zone of Proximal Development" which simply means that the distance between the learners actual development level and their level of potential development (Learning under adult guidance or collaboratively with peers) (Vygotsky 1978). He observed that when children were tested on tasks on their own, they didn't do as well as when they were working collaboratively with an adult, even though an adult was teaching them how to perform the task. The process of engaging with an adult, enabled children to clarify their line of thinking or performance therefore making their learning more effective. For Vygotsky therefore, the social interaction was central to learning and development.

Other constructivist scholars agree that individuals understand meanings through their interactions with others and physical world they live in which means that knowledge is socially and culturally constructed by people (Ernest 1991; Prawat and Floden 1994).

Another main principal of social constructivist view is the two way interaction between the learner and instructor where both are equally involved in learning from each other (Holt and Willard-Holt 2000). This dynamic interaction gives the learner the opportunity to compare their understanding of knowledge with their instructor and peers to enrich their learning.

Constructivist theory suggests that learning is contextual. Children learn new knowledge when it is relevant to them, to their lives and when they can use their previous knowledge to gain new experiences. Children cannot learn when what they learn is isolated and abstract from their lives. One of the most important contexts for learning, is of course, the classroom. In a constructivist classroom the teacher's role is to act as a facilitator. They guide the students, provide scaffolding, and support them to achieve their greatest potential. In other words help learners to extend their zone of proximal development. In order to accomplish this task they assess each learner individually. They encourage students to develop cognitive skills such as reflective thinking and problem solving. Learners are motivated to learn independently and discover the knowledge for themselves.

In a constructivist classroom the learner's role is to take responsibility for their learning and design new methods to learn. The learners are actively involved in the learning process and they learn to question both what they learn and how they learn.

A comparison of the differences between the traditional and the constructivist classroom by Brooks & Brooks (1993) clearly shows the importance of designing a constructivist classroom.

Traditional Classroom	**Constructivist Classroom**
• Students primarily work alone.	• Students primarily work in groups.
• The curriculum is presented part to whole, with an emphasis on basic skills.	• The curriculum is presented whole to part with emphasis on the big concept.
• Strict adherence to a fixed curriculum is highly valued.	• The pursuit of student questions is highly valued.
• Curricular activities rely heavily on textbooks and workbooks of data and manipulative materials.	• Curricular activities rely heavily on primary sources.
• Students are viewed as "blank slates" onto which information is etched by the teacher.	• Students are viewed as thinkers with emerging theories about the world.(cognitive apprentices)
• Teachers generally behave in a didactic manner, disseminating information to students.	• Teachers generally behave in an interactive manner mediating the environment for students.
• Teachers seek the correct answers to validate student lessons.	• Teachers seek the student's point of view in order to understand student learning for use in subsequent conceptions.
• Assessment of student learning is viewed as separate from teaching and occurs almost entirely through testing.	• Assessment of student learning is interwoven with teaching and occurs through teacher observation of students at work and through exhibitions and portfolios.

The value of constructivism

as a framework for technology in education

Some argue that technology can improve learning and create better schools whilst others believe that using technology without a well-designed pedagogical approach can create confusion for the learners and tutors. As a consequence of this, technology might be used as a quick fix to solve long running problems in education which may eventually lead to bigger issues.

Can having an organized systematic approach to use of technology in education be the starting point to establish a long term solution to educational issues?

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It is been suggested that there is a very strong link between constructivist theory and technology in education. As an example of this is John Dewey's view that education can be practiced with the use of technology. Although he didn't talk much about technology itself, his views of education can be applied to use of technology in education in the 21st Century. Dewey believed that education should not stop in classrooms but extend to life out of school. Children should be able to use the knowledge that they learned in school into their daily lives. Using technology in education will give children the experiences that they wouldn't be able to get in other ways. For example by using computers and the internet students are able to find, listen and see the information actively instead of sitting and listening to a teacher or trying to find it in a book. Dewey would agree that technology should be used as a tool in education because of its ability to motivate learners to learn.

There have been many studies about the role of technology in enhancing the teaching-learning process in constructivist classrooms such as; Black & McClintock, 1995; Brush & Saye, 2000; Collins, 1991; Duffy & Cunningham, 1996; Richards, 1998. They all agreed on one outcome; - When the constructivist approach is used together with the technology, it has a very positive impact on learning outcomes.

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Dwyer, et al. (1991) suggests that Technology is as a powerful tool for constructivism's main principle that students learn by doing. The constructivist approach works well with technology because it supports collaborative, interactive and student-centered learning. This partnership also has a positive effect on student attitudes because they feel more successful, are motivated to learn and have better self-confidence.

According to Bagley and Hunter (1992), students use more resources, enjoy learning more, develop a wide variety of ideas and advanced reasoning skills when using technology.

By using technology in the constructivist classroom, teachers will engage students with the lesson more actively, work collaboratively and develop more complex thinking skills. Constructivists believe that technology should be used by the students as a tool to explore problem solutions and acquire new information. Once this is done then the learners can apply their own meaning to the new knowledge. The constructivist approach supports child-driven learning and the latest technological developments give children the opportunity to access knowledge instantly which puts them in a position where they are fully in control of which information they can access and how.

Another main principal of constructivist approach is learning collaboratively. Jonassen and others (2003, 9) suggest that «learning and instructional activities should engage and support combinations of active, constructive, intentional, authentic, and cooperative learning. [...] Learning activities that represent a combination of these characteristics result in even more meaningful learning than the individual characteristics would in isolation».

The use of technology in education creates an environment where learners work together to help each other to construct new knowledge. Children like talking about their work and strategies. This helps children who may not do very well, who may be developmentally behind, to work with their peers and progress better. They feel that they are included in the learning process instead of feeling alienated by the complexity of the knowledge that teachers traditionally try to teach them directly. This also makes them feel more confident and be less reliant on an adult to learn. Networking also allows children to communicate and collaborate with other students around the globe through E-mail. Chat groups not only let children exchange and share knowledge, but additionally allow teachers to develop themselves further through sharing their lesson plans and teaching strategies with other educators via online communities.

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Using technology in the classroom develops a new form of communication where children become a part of the wider community by using search engines, online libraries and joining web based classes. Teaching and learning is not limited to the classroom. With the help of technology, children can visit places, speak to other students, access their work from home and complete it, get instant feedback from their teacher etc. The opportunities are endless. Technology in the constructivist view shifts the structure of the classroom; whole class teaching transforms itself into small group work where children are coached by their teacher, encouraged to take part actively and work collaboratively, thinking both verbally and visually.

Constructivism is simply about questioning, investigating, autonomy and personal expressions of knowledge. Technology allows for investigating, explorations and self-expression. Effective use of technology helps children to be more collaborative, allow them to learn at their own pace.

Using technology to support Constructivist learning such as iEARN and Oracle Thinkquest provides authentic learning experiences for children. They work on projects that are based on issues which are relevant to everyone from around the world that participates. This enables children to experiment with different situations either individually or in groups.

The Apple Classrooms of Tomorrow (Dwyer, 1994) research project shows that children who have been given 2 computers; one to use at school and one at home acquired advanced skills. According to this research, students:

- Explored and represented information dynamically and in many forms.
- Became socially aware and more confident.
- Communicated effectively about complex processes.
- Used technology routinely and appropriately.
- Became independent learners and self-starters.
- Knew their areas of expertise and shared that expertise spontaneously.
- Worked well collaboratively.
- Developed a positive orientation to the future. (Apple Inc, 1995)

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Teachers who took part in this project expressed that they became comfortable with the technology and they acted as a mentor rather than lecturers with their students. Their efforts to integrate technology into classroom made them rethink about the way they approached education and creating an environment with opportunities for learning.

Interestingly exploring information, working collaboratively, becoming an independent learner, talking and sharing their knowledge, teachers being mentors; all these outcomes are the bones of the constructivist approach to education. It appears that constructivism and technology are trying to achieve the same outcome.

All of these issues have significant implications for the role of the teacher and student in constructivist views of technology-based learning. It is widely believed, for example, that traditional approaches to education don't equip teachers with the constructivist skills required to support learners. Teachers need to adapt a new technology based learning model (Dool & Kirschner, 2003) which will enable them to teach students to design and apply strategies for solving problems and develop inquiry based high level thinking skills.

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In this perspective of constructivism, teachers must be prepared to provide technology supported learning opportunities to the students. They should be trained to use technology and be aware of how technology can support students' learning. Both physical and virtual classes must be led by teachers who are equipped with the knowledge and skills to teach incorporating well developed technology skills and correct pedagogical approach.

Technology can support teachers to create a learner-centered environment (Forcier et al, 2005). Teachers who use a constructivist approach to education, value cooperative learning and technology. In this way teachers act as a guide, not the lead, additionally they become a student, learning from the students, just as students become their own teacher as they construct their own knowledge. They also understand that not all students will understand everything in the same way, so through cooperative learning, they engage students in activities which will support them to understand their own thought processes and their peers. They will have opportunities to use and see how others use technology in different ways.

In contrast to the role of the teacher, students are seen to need to use technology in a creative and effective way to seek and analyze information; to solve problems and making decisions; to communicate and collaborate with others. They need to ask and search for the knowledge instead of waiting for the teacher to deliver and construct the new knowledge through their own experience and understanding as a learning outcome.

Advantages and disadvantages of adopting a constructivist approach to technology in education

These views of technology-based learning are seen to have a number of strengths and resonances with contemporary notions of learning. For example, in arguing that learning is built upon what learners already know, the constructivist view promotes customized education instead of following a standardized curriculum. Using computers and the internet learners can now access information anytime, anywhere. This takes the time constraint away so that teachers can spend more time on topics that students are interested in.

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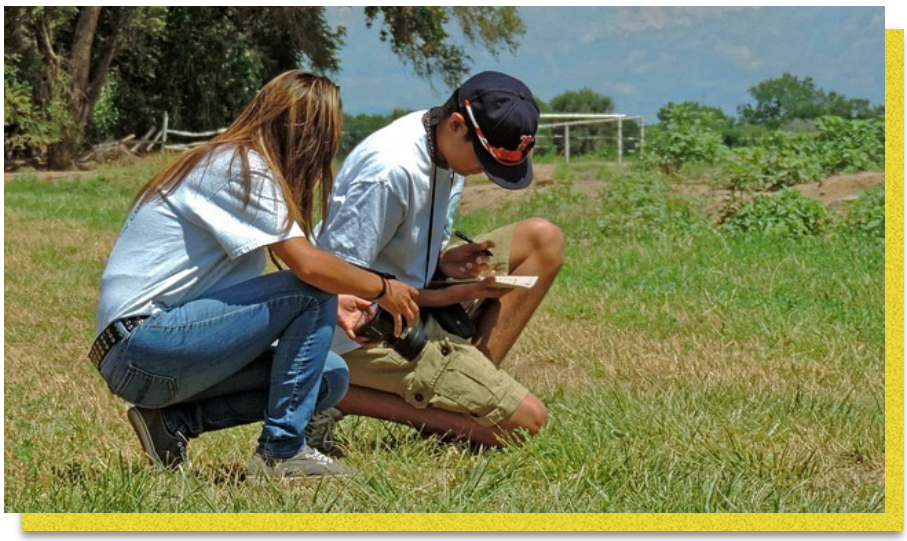
There is no doubt that children learn better and enjoy more when they take an active part in learning instead of passive listening. For example telling them about the British Isles will not engage them with the lesson directly, but by allowing them to do research about the British Isles using the Internet will help students to get involved actively in the learning process. This will also help learners develop a better understanding of concepts such as; reasoning, creativity, taking an active part in problem solving, and meaningful technology. By using technology as a tool, learners get directly involved in activities. This helps them to relate the knowledge to their own lives.

Using technology as a tool to teach creates an environment for working in groups. Using different technological tools such as computers, digital cameras and the internet, children can work either as individuals or as a group on different projects. The World Wide Web also removes the problem of physical distance and allows learners to work with peers out of classroom too. Web 2.0 technologies provide learners with cooperative and collaborative learning experiences and encourages learners to actively construct their own learning and meaning.

The constructivist approach promotes higher level thinking skills. Use of technology such as Web 2.0 applications promotes constructivist learning principles in the classrooms. Web 2.0 applications can be seen as 'intellectual partners' in the collaborative learning process to promote critical and higher level thinking (Voithofer, 2007). Using graphics, photos, animation and videos, learners can design and complete creative, higher-level tasks. The use of the constructivist approach together with Web 2.0 in the classroom provides learners with a 'complex laboratory in which to observe, question, practice and validate knowledge' (Dillon, 2004). Using constructivist pedagogy to support the use of technology encourages learners and teachers to concentrate on how to think and understand rather than memorizing parts of the knowledge.

Use of technology to support lessons motivates learners by accommodating their interests. Using a simple projector and the internet, teachers can take students on a virtual field trip on any subject that interests learners. They also provide virtual simulations of real life experiences which can be integrated as part of the curriculum.



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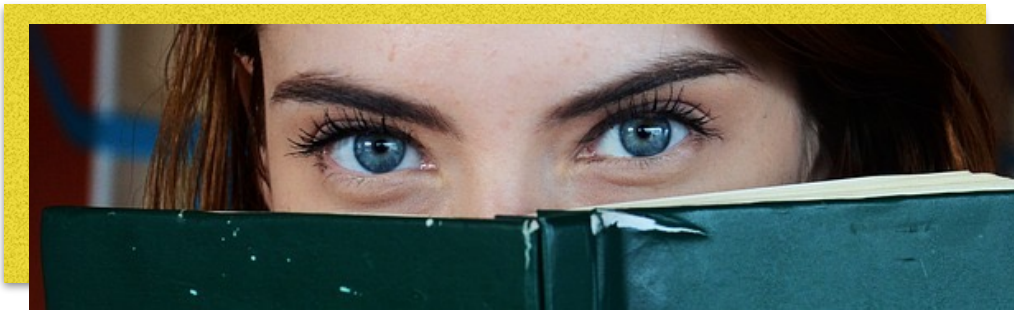
The constructivist approach encourages teachers to design learning activities in an authentic context so that learners will engage with the lessons. The most important outcome is that students learn to question things and apply this skill to finding out more about the world outside of the classroom. If they search for answers to their questions using an online library or encyclopaedia, they can then continue asking questions in other areas after school and use the same Internet search skill that they had developed in the classroom to overcome their curiosity.

In a constructivist classroom, students construct their knowledge. Online technologies can be used to gather, communicate and construct knowledge by pupils according their needs and what they already know. For example by using a CD ROM learners are able to explore and construct information at their own pace. They can also transfer the skills that they have developed in the classroom to outside the classroom and apply it to different situations.

These arguments notwithstanding, it has been argued that there are disadvantages of adopting the constructivist approach with the use of technology in education.



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Constructivism suggests that learning should build upon the prior knowledge of students. All the students will have different starting points from which to acquire new knowledge. Customizing activities to every single student may not be achievable as it requires time and staffing.

Another issue that may arise is; implementing learner-centered teaching doesn't happen overnight. It requires a long-term planning for training educators to understand and practice the constructivist approach in their classroom. The cost of this professional development may not be manageable.

Additionally, the difficulty to assess children's level in a technology integrated constructivist learning environment can be also seen as a disadvantage. As constructivism encourages learners to start from their prior knowledge and work at their own pace, this means their starting point to acquire new knowledge will be very different as will their progress. Designing a standardized assessment method to assess their learning may not be possible.

From the view point of technology; the rapid and continuous developments in technology might make it difficult for teachers to gain the new skills to use these technologies in the classroom. Again it requires a very well organized systematic continuous teacher training programme to support educators with up do date knowledge and skills.

Conclusions

Technology can make learning better when it is guided by a pedagogy that suggests a well structured, learner-driven curriculum. As suggested by Riel (1990), new tools such as technology don't suddenly change education. The relationship that the tool offers learners and the collective vision as an outcome of this relationship can define the curriculum which will then shape the learning process.

Technology is widely used by children outside of school, which they readily grasped and made this new tool a part of their life. Schools therefore can take advantage of this by integrating technology into curriculum with the correct pedagogical approach which is constructivism for creating a child-driven, interactive learning process.

There are some important steps to be taken in order to achieve this. Teachers needed to be trained to follow up the rapid changes in technology. But most importantly they need to stop seeing technology as 'electronic books' and understand the pedagogical potential of technology. This can be achieved if the teachers are provided with the time and support to familiarise themselves with the new technologies and how to use them in the classroom.

As it can be difficult to use a standardised assessment method in a technology integrated constructivist classroom, educators then will need to develop a new form of assessment method to record children's progress. One suggestion to this can be creating a portfolio of children's work. This portfolio can be created and recorded easily by use of Virtual learning Environments. These records of children's progress in learning will help teachers to evaluate learner's progress and identity their individual needs. This will have an effect on their planning; as a result they will plan activities according to individual learner's needs and interests which will motivate the learners to learn.

Technology can only be effective if the learning environment supports changes and new experiments. Only then can technology offer well structured learning concepts that will change the culture of learning in schools. A constructivist approach to learning supports and encourages exploring and investigating new concepts. Therefore not instructional traditional teaching that behaviourist approach supports but constructivist philosophy can be merged together with technology to change the culture of the learning in schools and thus have a dynamic effect on a pupils' ability to learn. Allowing teachers to control the learning as behaviourist theory suggests, will discourage children working in groups and focusing on facts more than knowledge and an end product. Using technology only as a direct instruction or assessment tool as behaviourist theory implies will not motivate children to learn or gain knowledge but it will make learning irrelevant to their experiences. As an outcome of this students will create a negative attitude toward learning and schools.

In conclusion; if technology is added to a poor practice then the teaching/ learning will still be of a poor quality, as the technology will not be able to enhance learning like a magic wand. Having the latest PCs and software in the classroom doesn't mean that learners will learn better, however, the pedagogical approach that supports and shapes how technology is used in the classrooms will help learners to do better.

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Audio Podcast Link

Design It & Make It with TinkerCad

Overview
This is a free online tool that lets you design and model 3D object all though a web browser. Objects you create can exported to a common file format recognized by most 3D printers. You can also export to Minecraft (not sure how that works but it sounds cool.)

Concerns
None

Sample Uses
Use it for a design class. Great for STEM projects. Easy way to get kids designing objects that can be sent to a 3D Printer.

Commitment and Learning Curve
3D Design software can be quite complicated and have a high learning curve, this is quite basic and simple, yet powerful. The built-in lessons will get you comfortable and working with this web tool in a matter of minutes.

Do I plan to use it?
Used it once to make and print a keychain. Plan to use it again with kids.

Best for ES MS or HS?
All!

Cost
Free!

Website Link
www.tinkercad.com

3D Printing Ideas & Resources

The Non-Tech Teacher's Guide to Using a 3D Printer

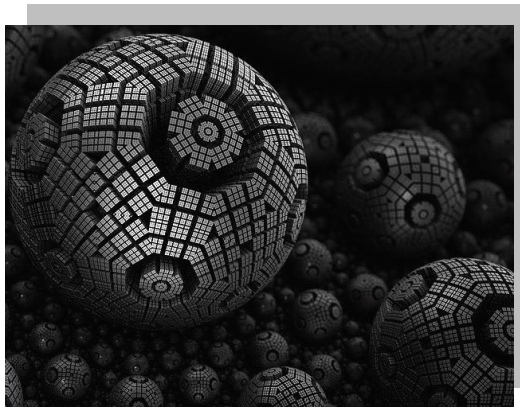
Create your own electrostatic motor using a 3D printer

A Maker Rubric (PDF)

Technology Access at Home

by Janessa Marks

It has been my good fortune to witness and participate in the rollout of new curriculum for mathematics in two different school districts. Through the lens of both a low-income, highly minority urban school and a diverse middle-class suburban school, I have seen the reactions, hesitations, and various benefits both curriculums provided, especially with respect to the technology platforms supplied along with the traditional textbooks, workbooks, and the like. It was once true that bringing technology into the classroom was a method to make educational opportunities more equitable. As emerging techniques (flipped classrooms, online research, online assignments) shift the access point of technology from the classroom to the home, it is time to reconsider if we inadvertently have created a new divide.



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Many teachers, myself included, were thrilled at the thought of streamlining homework assignments through a digital platform. “No more grading!” I remember thinking. Other teachers noticed benefits from students receiving immediate feedback about their answers, allowing them to make corrections before they ever made it into the classroom. Both platforms even provided extra tools for students struggling with a problem (worked examples, live tutor, link to the relevant section in the textbook). Still, with all of the benefits, I found myself hesitating to assign work from the program. I wondered how many of my students really had reliable internet access at home.

In each of my schools, teachers have discussed thoughts about this issue related to the different populations in the schools. When I started at a low-income school, like many other teachers I made the assumption that a significant number of students would not be able to access the assignments at home. At my current school, few teachers consider this an issue, although this is in part because the digital platform assigns the same problems as the paper textbook.

While I can’t speak for my colleagues, my personal experience certainly influenced my opinion on this topic. During a year studying abroad I had the good fortune to live a short while with a family that had emigrated from the Dominican Republic. The head of the four person household was a single mother who worked a low-income job at a restaurant. It just so happens that during that time I had a college interview arranged over Skype. Up until the moment I powered on their ancient computer and realized to my dismay that the internet was not in service, I had assumed that every person in the “internet age” always had access to this resource. I learned in that moment that access to the internet could open opportunities or it could close them.

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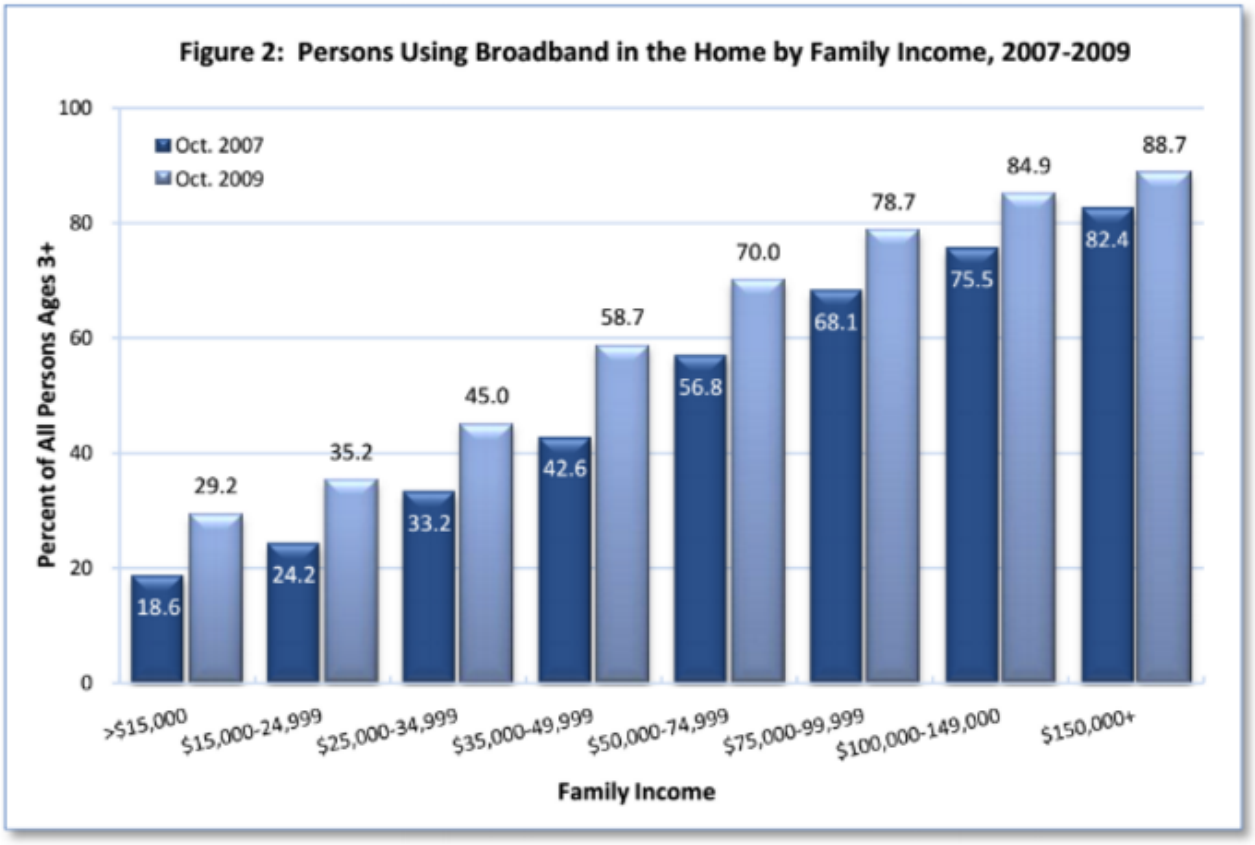
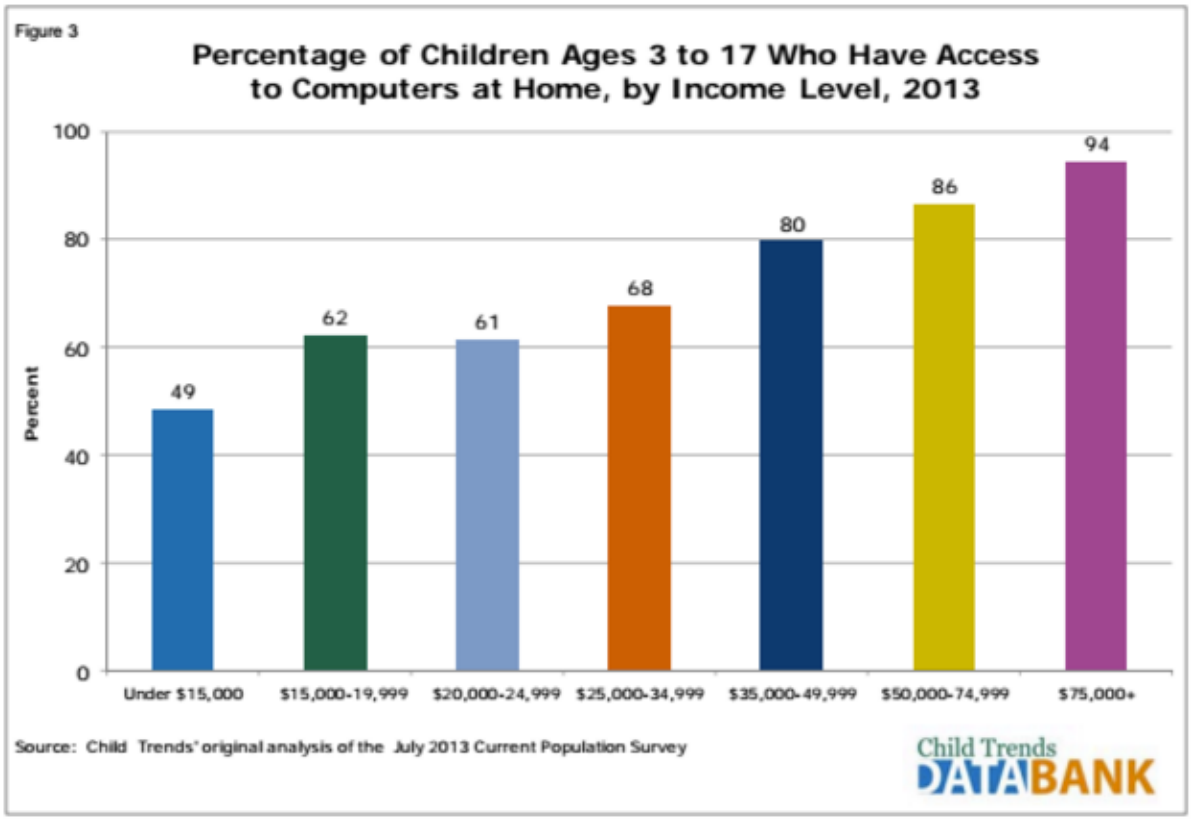
Before making any assumptions this school year, I decided to ask students and parents about their level of access at home. Out of 78 responses, 6 indicated some concern about consistent access. Of course, this was in the form of a digital survey, so it's difficult to know why some responses are missing. I wanted to know if my low-income students were likely to have internet access or not, would I be perpetuating opportunity gaps for my students by making the assumption that they have access like 92% of students for whom I did get a response?

It seems obvious that access to internet has grown over time. But it begs the question, has access become consistent for all income levels? The US Department of Commerce studied this very issue in 2009, noting that while growth has been consistent across income brackets, the percent of household members using the internet at home is drastically different between the lowest and highest income brackets (NTIA 5).



We see similar discrepancies looking at households with different family structures. Compared to married families with children, 19.8-22.9% fewer single parent households were using the internet at home in 2009 (NTIA 8).

You may rightly contest that was seven years ago and the infrastructure around internet access has improved. A more recent study focused on children's access at home noted, "in 2013, children's access to computers at home and their home Internet use was positively related to household income. At that time, 49 percent of children in households with incomes of less than $15,000 had access to a computer at home, compared with 94 percent of children in households with incomes of $75,000 or more. (Figure 3) Children's Internet use at home followed a similar pattern, ranging from 33 to 71 percent." (p.4).



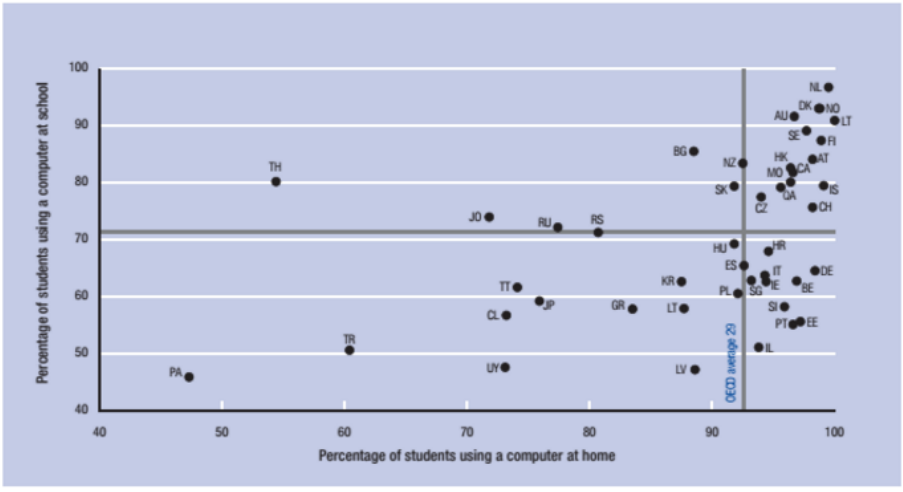
If this range of access is the case in the United States, globally we should consider both the opportunities to leverage existing access and the potential repercussions for creating or widening opportunity gaps. The Global Information Technology Report includes a summary of 150 economies as they rate on a scale of digitization (p.124).

Constrained		Emerging	Transitional	Advanced
Ethiopia	Morocco	Georgia	Jordan	Lithuania
Comoros	Honduras	Bosnia and Herzegovina	Seychelles	New Zealand
Niger	Kyrgyzstan	Ecuador	Barbados	Slovenia
Burkina Faso	Bolivia	China	Mexico	Belarus
Madagascar	Sri Lanka	Armenia	Turkey	Hungary
Afghanistan	Moldova	Trinidad and Tobago	Montenegro	Poland
Lesotho	Aruba	Botswana	Colombia	Greece
Mali	Namibia	Antigua and Barbuda	Bahrain	United Arab Emirates
Rwanda	Guatemala	Azerbaijan	Philippines	Slovak Republic
Yemen	Dominican Republic	Panama	Iran, Islamic Republic	Romania
Togo	Suriname	Venezuela	Macao SAR	Russia
Cameroon	Pakistan	Albania	Serbia	Czech Republic
Mozambique	Paraguay	Saint Lucia	Argentina	Netherlands
Sao Tome and Principe	El Salvador	Macedonia FYR	Oman	Ireland
Benin	Gabon	Peru	Uruguay	Italy
Burundi	Fiji	Brazil	Latvia	Spain
Lao PDR	Egypt	Costa Rica	Croatia	Austria
Senegal	India	Mongolia	Bulgaria	Germany
Djibouti	Belize	Lebanon	Cyprus	Portugal
Cuba	South Africa		Ukraine	France
Nepal	Guyana		Estonia	Singapore
Iraq	Kazakhstan		Kuwait	Belgium
Uganda	Algeria		Malta	Australia
Uzbekistan	Thailand		Qatar	Finland
Kenya	Tunisia		Saudi Arabia	Sweden
Vanuatu	Brunei Darussalam		Mauritius	United Kingdom
Swaziland	Indonesia		Malaysia	Japan
Côte d'Ivoire			Chile	Denmark
Vietnam				Israel
Bangladesh				Canada
Cambodia				Taiwan, China
Nigeria				Luxembourg
Zambia				United States
Ghana				Switzerland
Syria				Hong Kong SAR
Angola				Korea, Rep.
Cape Verde				Iceland
Bhutan				Norway

Sources: Data from ITU, Ovum, Euromonitor, Akamai, ILO (Laborsta), Global Insight, UN, WCDM, Webometrics, Bgexpert, Internet World Stats, UNESCO, Wireless Intelligence, and Telecom Advisory Services; Booz & Company analysis.
Note: Countries are ordered from the least to the most digitized within each stage.

In a later section of the publication focused entirely on education, they report the results of computer access at school versus home for a number of countries. The author, Francesc Pedró of UNESCO, eagerly points out that access alone does not necessarily produce positive effects. Unlike the Child Trends data, this study focuses on 15 year-olds instead of all children 3-17. For countries like Israel with much higher home access than school, access to digital resources may create new opportunities for learning at home.

Figure 4: Percentage of 15-year-olds who reported using a computer at home and at school, 2009



Source: OECD, 2011.
Note: OECD average 29 is the average value for the non-OECD participating countries in this survey. Each economy is identified by the two-letter abbreviation used for Internet top-level domain names, available http://www.greenbuilder.com/general/countries.html: AT = Austria, AU = Australia, BE = Belgium, BG = Bulgaria, CA = Canada, CH = Switzerland, CL = Chile, CZ = Czech Republic, DE = Germany, DK = Denmark, EE = Estonia, ES = Spain, FI = Finland, GR = Greece, HK = Hong Kong SAR, HR = Croatia, HU = Hungary, IE = Ireland, IL = Israel, IS = Iceland, IT = Italy, JO = Jordan, JP = Japan, KR = Korea, Rep., LI = Lichtenstein, LT = Lithuania, LV = Latvia, MO = Macao SAR, NL = Netherlands, NO = Norway, NZ = New Zealand, PA = Panama, PT = Portugal, QA = Qatar, RS = Serbia, RU = Russian Federation, SE = Sweden, SG = Singapore, SI = Slovenia, SK = Slovak Republic, TH = Thailand, TR = Turkey, TT = Trinidad and Tobago, and UY = Uruguay.

Our daily lives have become inundated with technology input, but while we may believe that every person has our same level of access to devices at home or in the community, this is a dangerous assumption to project on our students. Without complete information, it is important to consider how we support our student's equitable access to content through our work both in the classroom and beyond.

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About Janessa Marks:

Janessa began her career in teaching after a brief interlude working in the beer industry. She studied International Studies-Economics at the University of California, San Diego and received her Masters in Curriculum and Instruction from the Morgridge College of Education at the University of Denver. Determined to make a difference in the world, teaching became both a calling and a passion. She currently teaches middle school mathematics in the Cherry Creek School District of Colorado, USA.

CS UNPLUGGED
Computer Science without a computer

Audio Podcast Link

Overview
This is a site that I'm very excited about. I've started dipping my toes in the water of teaching computer science to my students and am really enjoying it. The problem is that sometimes the concepts are too theoretical for my students to grasp. They needs something more hands on and something they can physically interact with to understand. Computer Science Unplugged is the answer to my problem. Here's how they explain their site: CS Unplugged is a collection of free learning activities that teach Computer Science through engaging games and puzzles that use cards, string, crayons and lots of running around.
Importantly, no programming is required to engage with these ideas! CS Unplugged is suitable for people of all ages, from elementary school to seniors, and from many countries and backgrounds.
Unplugged has been used around the world for over twenty years, in classrooms, science centers, homes, and even for holiday events in a park! The material is available free of charge, and is shared under a Creative Commons BY-NC-SA license, which makes it easy to copy, adapt and share it.

Concerns
None.

Sample Uses
Right now I cherry-pick for enrichment activities and support for key concepts in AP Computer Science Principles. I see opportunities for some of these activities to be used in math and science classes, too.

Commitment and Learning Curve
Low - it depends on the activity but the ones I've looked at are pretty easy to understand.

Do I plan to use it?
Yes, absolutely.

Best for ES MS or HS?
All!

Cost
Free!

Website Link
http://csunplugged.org/

The InnoApps Challenge

An Interview with Maria Sotiriou

Maria Sotiriou, Partnerships Manager at the European Young Innovators Forum, discusses the opportunities to explore, create, and imagine in the InnoApps Challenge.

Could you please tell us about yourself?

I was born Greek in Thessaloniki, and see myself as a native European citizen of the world. I have always wanted to become part of an intercultural communication process and this is why I initially studied translation and conference interpreting. After finishing my undergraduate studies and having lived in many countries (Greece, the UK, France, Belgium and Turkey), I pursued an MSc in European Politics at the LSE. I subsequently worked for the Open Innovation Strategy & Policy Group (OISPG) at DG CONNECT, where I acclimatised to the workings of the European Commission and gained a constructive knowledge of innovation and entrepreneurship. I am currently the Partnerships Manager at the EYIF, where I am responsible for the company's relationships with corporate stakeholders and manage big projects such as the InnoApps Challenge in collaboration with Huawei.

What is the European Young Innovators Forum and what is the idea behind it?

The European Young Innovators Forum (EYIF) has been founded in 2010 by Kumardev Chatterjee, a young entrepreneur at that time, at an event at the European Parliament and from its pre-start, it was supported by the European Commission, the European Parliament and the Council. Kumardev joined forces with Nicholas Zylberglajt, a young innovator on the policy side and some other like-minded entrepreneurs in order to give voice to a community of young innovators and experts who did not have a platform to connect with each other.

EYIF has rapidly become the largest network of young innovators in Europe reaching more than 500,000 people across all EU member states. In its mission to grow the European startup ecosystem, it is forming strategic innovation partnerships with major industry players across multiple sectors, in the scope of providing early-stage but also growth-stage startups access to corporate innovation ecosystems, expert mentors, customers, market access and funding. EYIF collaborates regularly with the European Institutions, the US State Department, the World Economic Forum, the Mobile World Congress, the MIT Technology Review and CeBIT as well as big corporate companies such as BNP Paribas, Huawei, Deutsche Bahn and Deloitte.

You are organising an event with Huawei called 'the InnoApps challenge'. It sounds very exciting and also a bit techie! Can you tell us about it?

The InnoApps Challenge is the only pan-European competition to develop innovative apps for Smart Cities. It is a joint initiative of the European Young Innovators Forum and Huawei that aims to contribute to the development of a more socially inclusive society in Europe by fostering "e-skills," increasing "e-participation" and promoting entrepreneurship for young generations in Europe today. This third edition is open to young people from 18 to 36 years old and its focus is on how to address challenges regarding safe cities. It is important to highlight that no tech or developing skills are required in order to take part. You just need some time and imagination to apply with an idea that will make a difference. Besides the prize money (35,000 euros in total for the 3 winning teams), there is tech and business mentorship for the finalists and mainly access to experts that can help them transform their idea into a reality. You can find more information on our website also on the jury members and mentors: http://innoapps.eu/. The applications deadline is 25th October, so hurry up!

What is the aim of this event? What do you intend to achieve?

The InnoApps project has been running for three consecutive years. In practice, it exemplifies Huawei's commitment to Europe with reference to entrepreneurial, creative and collaborative solutions. EYIF is therefore a perfect match for Huawei's endeavour, helping it to reach the European community of young innovators. Moreover, this initiative supports the new EU Smart Cities Agenda, a concrete result of an ambitious Digital Single Market. In this light, InnoApps Challenge welcomes entries from avid app developers who through their participation could go into a career in the digital sector which will eventually help to spark innovation ultimately translating into more jobs and economic growth. The challenge runs in several phases: the idea phase, ending in October, followed by an online mentoring phase for shortlisted candidates and finally, the apps development phase, for selected ideas that will culminate into a live-pitching final. The final will take place at Autoworld in Brussels on 9th February 2017.

Is there a reason that you focused on app development?

Like most younger Europeans, I have grown up digital. I have always been excited by apps as the fastest way to create something useful and test-drive it with family, friends and the online world. In a nutshell, this contest gives us all the big opportunity to get global profile for an app with our name on it.

How can people get involved in your activities and find out more about your events?

EYIF runs many activities not only in Europe but also in Asia and the US. Just to give you one of this year's highlights, EYIF selected and sent a delegation of top-tier European tech startups to its own EYIF pavilion at Mobile World Congress in Shanghai (MWCS). BLITAB, a member of EYIF's delegation of European champions was awarded the 4YFN Award along with the title of the best startup at MWCS. You can learn more about our actions by visiting our website or by sending an email at eyif.innovator@eyif.eu. You can get involved by subscribing to our newsletter, follow us on Twitter and LinkedIn and by liking our FB page. This will allow you to be kept informed of startup competitions and events. There is also the possibility of becoming a volunteer and gaining first-hand experience of the European startup ecosystem.

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