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How to Best Use Technology

Frank Byl

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HOW TO BEST USE TECHNOLOGY

Technology is advancing at breathtaking speed. As soon as you learn something well it seems that there are new tools, new ideas, more material, and it can be challenging to keep up. How do we take control of technology instead of having technology control us? Frank will be reflecting on Goals and Concerns of technology and then sharing some ideas on how to use Technology with the best benefit to us corporately and as individuals as well as some sage advice from his experiences. Enjoy a fun, interesting and thoughtful tour to help you discover the best use of technology for you and your circle.

BIO

Frank Byl is a Microsoft Master Instructor with over 20 years of training experience. Frank has taught thousands of individuals and companies during which he has both shared and learned. He will bring a light-hearted and thoughtful approach to all his training and help you learn not only the ins and outs of technology but how to apply it to your every day life and help best meet your goals.

PRESENTATION FOCUS

Technology is of course everywhere. Never mind just computers, phones and tablets. Every vehicle, appliance, watch, and even light bulbs are loaded with technology that we never imagined in a "mechanical thing" just a few years ago. For this presentation I'm going to primarily focus on the tools that would impact the learning of young students and also help the parents and teachers that are responsible for that learning.

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PREPARING OUR KIDS

1. We cannot prepare the future for our kids but we can prepare our kids for the future. Franklin D Roosevelt
2. Our kids see a new world that is vastly different then our world. They sometimes know more of this world,but they need to also know where they came from.
3. Everything is moving so fast….Except Education. If we teach today like we taught yesterday we rob them of tomorrow.
4. 65% of our kids will work in careers that don't even exist yet – Jim Carrolls
    1. Flash Forest is planting 1000's of trees per hour using a drone

QUESTIONS

1. Does technology control us or do we control technology?
2. When do we begin training our kids for this future?
3. What do they need to learn?

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INTERESTING FACTS

PROS

1. Research shows that computers are intrinsically motivating to kids
2. Technology offers different ways for students to learn and to demonstrate their learning
3. Allows for deeply interactive experiences
4. Allows for learning without worrying about public mistakes
5. Allows for connecting with remote people and places
6. Kids can work in pairs
7. Elders could be recorded and these could be loaded on YouTube private channel to preserve language and historical messages
8. The iPad gives a very intimate group vs projecting onto the screen much like reading a story book together

CONS

1. Typical adults spend 4 hours per day on the phone. Some kids are spending more then this.
2. There is a direct relationship between unsupervised time children spend on the internet and their likelihood to be diagnosed with ADD
3. We are eliminating face to face meetings
4. Children are not learning social cues from reading body language since so much of there communication is not face to face. We "literally" express feeling to the point where it becomes hard for children to "read" a situation in real life. Children and all of us need human interaction.
    a. Empathy is expressed as IFYP (I feel your pain) but not really sure if a hug is appropriate.
    b. Not able to perceive that someone is not interested in their conversation unless they get a text that says IDC (I don't care).
    c. Maybe you are taking things literally when you should be reading between the lines which of course you would do if you got the cue RBTL.
5. Even during family time people are not together.
    a. Family time after Christmas dinner
    b. Seven people sitting in the same room texting. Some are texting with each other

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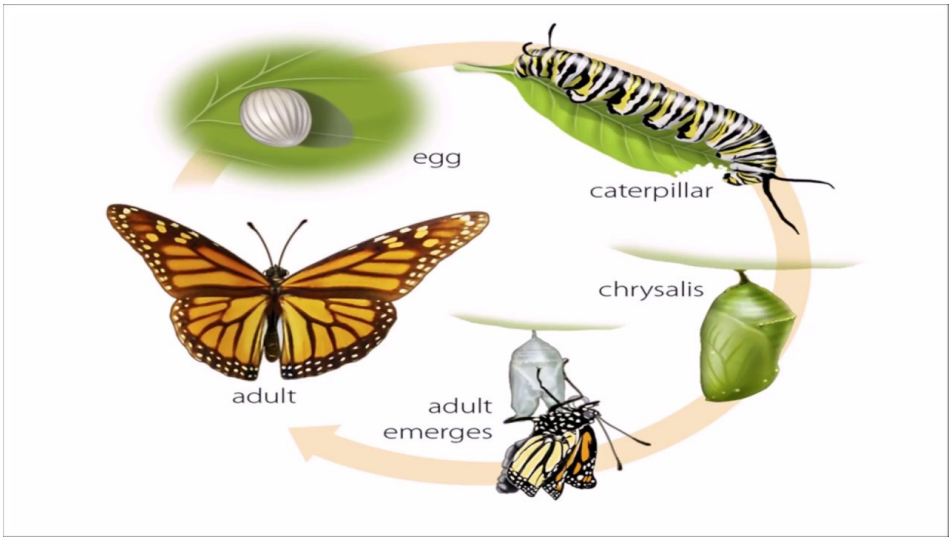
BENEFITS

1. Kids are crazy about technology! It is the greatest motivator.
2. Immersive experience
    a. Teaching Metamorphosis
        i. With pictures



        ii. or video
    b. Museum tour with animations
    c. Smithsonian Institute

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3. Instant access to libraries of information
4. Provides early childhood educators with unlimited access to newer, more innovative teaching methods that allow them to facilitate an active learning environment.
5. It also gives a private way for them to practice without fear of public failure
6. Able to engage with other people, cultures in other areas or even countries
7. Simplify communication
    a. Fresh Grade for teachers and parents to communicate more, faster, better, easier
8. New tools for creating art including 3-D art
9. Allows student to practice with easy repetition and examples as opposed to adult lead practice (e.g. Duo Lingo)
10. Flexibility of location, time and focus

THINGS KIDS CAN LEARN

DEVELOP MATH AND LITERACY SKILLS

With simple learning activity. Simple apps can help children learn counting, numbers, letters, colors, sounds, matching shapes, etc. Shine-2 Software has two Explorations that help children gain early math and literacy skills. From letter recognition and letter sounds to counting, sorting, and grouping

Bubbles and Math Bubbles are fun learning opportunities and engaging digital experiences for such.

Star Falls and Sesame Street “Letter of the Day” really help teach literacy

COMPUTER SKILLS

Using touchscreen devices are the easiest for preschool age children, as their fine motor skills are still developing.

PROMOTE ACTIVE PLAY

Promote active play in your classroom by using software that allows student's to expand their imaginations. For example, try downloading “Go Noodle on an interactive touchscreen for indoor recess or singalongs. that requires children to move around to achieve certain goals in the game while learning an important lesson. They can take a jungle safari at recess and continue it in high definition back in the classroom by visiting live webcam websites such as the one provided by the San Diego Zoo. Or, they can do a flyby of Pluto and Participate in a video chat with experts in the field. Screen media can expose children to animals, objects people, landscapes, activities and places that they cannot experience in person. My grandsons love geocaching.

LEARN ABOUT ANIMALS

Encourage children to use technology to read about animals and watch informational videos that are developmentally appropriate for their age group. Learn about the anatomy of various animals. With some software children can paint over animal X-rays with their fingers to see what animals look like on the outside or paint away the animal's exterior to see its inner anatomy.

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OTHER LANGUAGES

Learning language requires repetition and use of pictures. Technology is perfect for this.

ENCOURAGE CREATIVITY

Technology provides many opportunities for children to be creative. Encourage children to use drawing programs and apps to start with, and then bring in other types of technology. Have children take a picture and edit it, make a short video and help post it to the classroom blog, or do similar activities that require technology.

DEVELOP DIGITAL LITERACY

Technology provides many opportunities for children to be creative. Encourage children to use drawing programs and apps to start with, and then bring in other types of technology. Have children take a picture and edit it, make a short video and help post it to the classroom blog, or do similar activities that require technology. Children need to learn to use a mouse and keyboard and also stylus'.

ENCOURAGES STUDENTS TO FOLLOW MULTI-STEP DIRECTIONS

Using digital devices requires children to follow multi-step directions. Examples of this are turning the devices on, swiping to the left or right, and selecting items on a screen. They can also learn basic programming. See robot video

Additional Resources

How to Set Up Your Preschool Technology Learning Center

Choosing an Appropriate Tablet for Young Children

Using Technology to Increase Creative Expression

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WHAT IS DEVELOPMENTALLY APPROPRIATE TECHNOLOGY USE FOR CHILDREN

AGES 0-2

- Children need unstructured play time. No media prior to 12 months.
- 12 – 24 months can learn if parents co-view material with them to teach language color and shape.
- No independent use for children under 2 years
- Children in this age can learn but don't have the same retention as children that learn from books.
- After 16 months children can benefit from long distance social connections with say far away relatives.
- For children under the age of 2, technology use in early learning settings is discouraged.

AGES 3-5

- Don't try to formally "teach" technology skills and competencies. Instead, set the stage for successful experimentation by providing the materials, introducing them, and offering support.
- Let children practice using technology by pretending with the types of gadgets they see their parents using, such as a smart phone, iPad, or laptop.
- Use a wireless laptop so that you can bring a Web-based experience to children, in the context of their play.
- Keep a digital camera at the ready to capture and document children's work.
- Set the stage for social, active learning. Choose activities that involve more than one child, like playing a web-based game such as Starfall.
- Encourage children to represent what they do using digital cameras.
- Introduce new technology during circle time, prior to placing it in a learning center.
- Expand on your children's interests by letting them come up with search words and see the results in ways they can understand (e.g., as a set of images rather than text alone).
- Expand what they think is technology 0:00 - 0:30 and 6:24 - 747

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TECHNOLOGY STANDARDS — WHAT SHOULD CHILDREN KNOW:

1. By the time children enter kindergarten, they should be able to navigate computers and iPads alike, launching applications, and negotiating menus. Why? Because many of their classmates will have these skills, which are required for basic computer and iPad usage. The following observable behaviors are typical of such mastery, but keep in mind that this is a suggested list designed to obtain a measure of a child's knowledge. In addition, technology is continually evolving, so it is important that you use this list as a flexible guideline only.
2. Use fine motor skills to use the mouse to move a cursor to a target on the screen.
3. Show awareness of the "power keys" on a keyboard (e.g., "enter," "esc," "delete," and the space bar).
4. Know the difference between the left and right mouse button (which can be helped by a small label or sticker).
5. Be familiar with at least five quality interactive applications, games, or activities.
6. Have a basic working vocabulary of common technology terms, such as "digital camera," "iPad," "computer," "Internet," "mouse," "keyboard," and "printer."
7. Have been exposed to common technology terms in the natural context of everyday conversation, such as "on/off," "Internet," "browser," "software," "hardware," "computer," "mouse," "monitor," "keyboard," "digital camera," "printer," "battery," and so on.
8. Have taken their first digital photo.
9. Find the numerals on a QWERTY keyboard.
10. Type their first name on a QWERTY keyboard.
11. Understand the basic functions of a browser, including how to open or close windows and use the "back" key.

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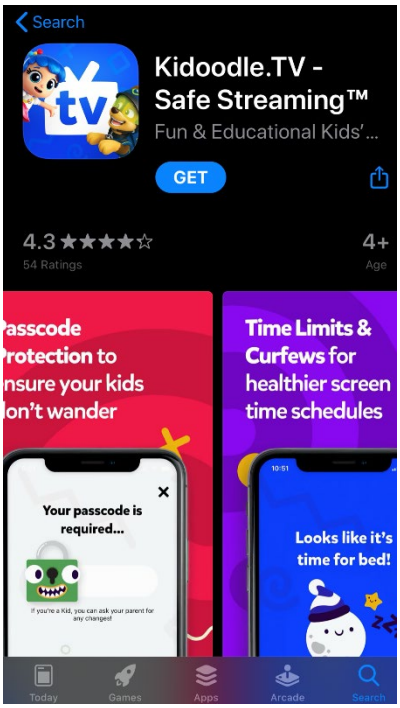
CONCERNS



1. Inappropriate Search results
    a. Kidoodle
        i. Limits where kids can go
        ii. Time limits and curfews
    b. YouTube kids
2. Time on computers and time on apps
    a. Net Nanny
        i. Works for computers
        ii. Limits time of day
        iii. Limiting overall time.
        iv. Limits time on specific apps.
        v. Limits to kid safe sites.
3. Privacy
    a. Consider have a Codename for your child when they go online
4. Lack of real connection
    a. Ensure the kids have plenty of real connection time with out devices

5. Problem when parents have anxiety of being able to connect with their kids.
6. Inability to have "permission" to focus due to expectation of instant response to texts from friends.
7. Search engines
    a. Use Kiddle
8. Accessibility for kids with learning disabilities
9. Internet Connection
    a. If you are waiting for your internet too often go to SpeedTest.net to see if what you are paying for is what you are getting. The speed you need will depend on how many devices and how many users and what you are doing
10. Too much passive use.
    - **Passive** use of technology generally occurs when children are consuming content, such as watching a program on television, a computer, or a handheld device without accompanying reflection, imagination, or participation.
    - **Active** use occurs when children use technologies to engage in meaningful learning or storytelling experiences.
    - Examples include sharing their experiences by documenting them with photos and stories, recording their own music, using video chatting software to communicate with loved ones, or using an app to guide playing a physical game or having exercise. These types of uses are capable of deeply engaging the child, especially when an adult supports them. As they get older (3-5) consider engaging TV like Blues clues.

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- Deep engagement is less likely to occur when a device is used passively. In many circumstances, minimal learning occurs when children use devices merely to consume videos on their own.
- One way an adult can tell if a child is actively engaging with content is for an adult to watch with them (known as co-viewing) and to guide them to a deeper engagement.
- Similarly, adults need to be cautious about assuming that a child using a device in a physically engaging way reflects active learning. While actions such as swiping or pressing on devices may seem to be interactive, if the child does not intentionally learn from the experience, it is not considered to be active use. To be considered active use, the content should enable deep, cognitive processing, and allow intentional, purposeful learning at the child's developmental level.

TECHNOLOGY IS MORE EFFECTIVE WHEN USED TOGETHER

Engage | Communicate | Learn | Create

- Need to use both books and iPads into circle times

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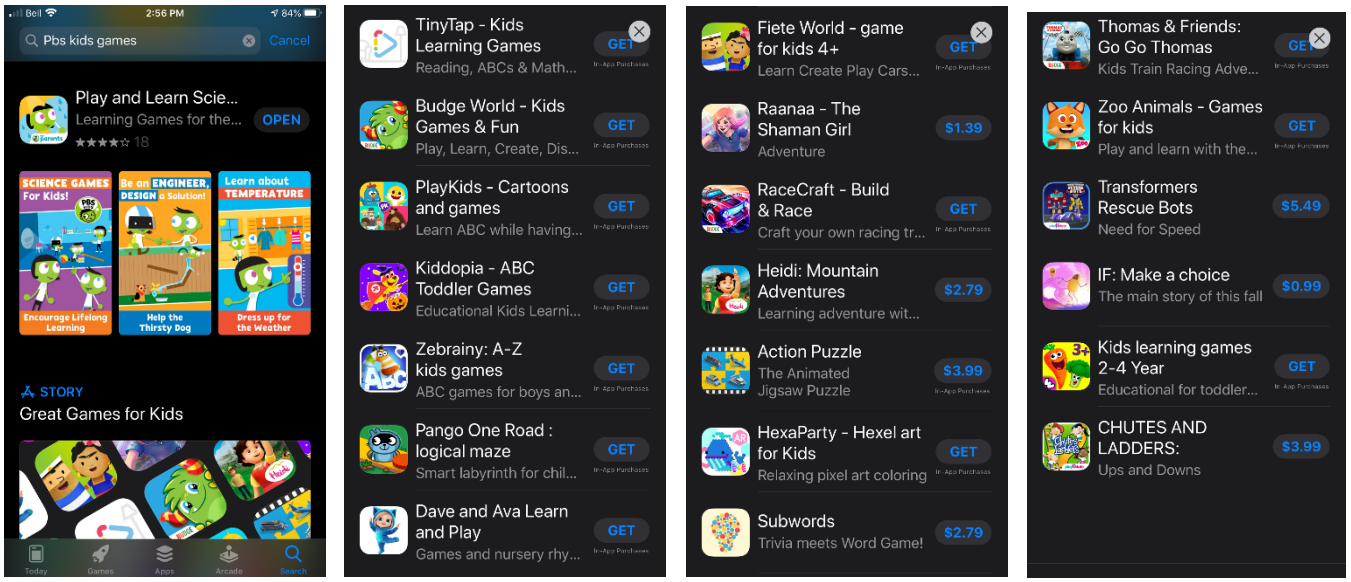
APPLICATIONS

FOR KIDS

1. Search for PBS Kids games on either Android or iOS. Kids will be having fun and not know they are learning. They are free and ad free.
    a. Learning outcomes include:
        i. Identity letters, colors, shapes, animals, plants, people
        ii. Understand numbers, calendars, weather
        iii. Social etiquette, working in a group, sharing, taking turns
        iv. Engage in problem solving within cultures
    b. Which app is better and why?



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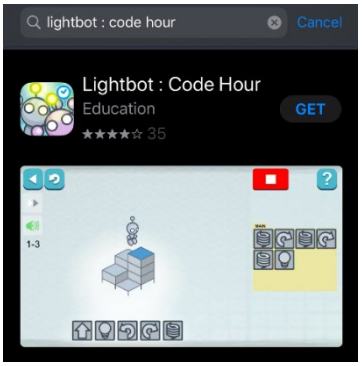
2. Abcmouse.com is consistently ranked one of the best learning tools for kids
    a. $10/mth
3. Epic
    a. Audible for kids
    b. Includes read to me feature
4. Duolingo
    a. Learning languages
5. Lightbot
    a. Teaches basic coding to kids. It has no instructions and is very intuitive exploring for kids.
6. Best apps for kids
7. Etiquette for using devices
    a. Brainstorm ideas



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FOR STAFF

1. Teaching Resources
    a. Early Childhood Teacher has many great resources
2. Tools for keeping parents informed
    a. Fresh Grade
        i. Parents can access day to day marks
        ii. Teachers can share photos and comments
        iii. Parents can communicate with Teachers
        iv. Have chat or virtual meetings with parents
3. OneDrive
    a. Cloud based storage for any type of files
    b. Allows collaboration on individual documents or folders
    c. Student assignments and worksheets can be shared on line
    d. Access file from anywhere even on a phone or tablet.
    e. Can set up free accounts at www.Outlook.com
4. OneNote
    a. Simple, free and powerful electronic notebook
    b. Store almost anything info OneNote
        i. Documents
        ii. Pictures
        iii. Video
        iv. Email
    c. Download OneNote 2016 for free. OneNote 2016 is far better than the new version included with Windows 10 or Office 365
5. Roku, Apple TV, Chromecast or smart TV
    a. Allows simple sharing directly from a phone, tablet or PC to a larger group
6. Video meetings
    a. We are doing it right now.
    b. Enough said about that.

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FOR PARENTS

1. Ask for and expect feedback between report cards especially when things are not going well. Fresh Grade or other tools.
2. Organizing time and communicate your schedule
    a. Use free calendar tools within Outlook.com or Google Docs. Don't try to remember it all. Learn to share meeting invites.
    b. Plan by looking ahead for the next seven days every day
    c. Make a plan not a list
    d. Use GTasks if you are using Gmail to synchronize tasks between your gmail and your phone
3. Consider making a Facebook (or other) group for your family to easily communicate the same information to everyone.

SECURITY ADVICE

1. Make sure you have a robust firewall and antivirus program setup
2. Never let kids connect online in their bedroom. It should be very public spaces in the home
3. Consider setting up a VPN so that your real location is hidden
4. Create strong passwords for yourself and your children. Use a password managing program like 1Password. This lets you set up one account the creates separate accounts for each person in the family. Creates a strong unique password for each site and you only have to remember, (can you guess?) 1 password.
5. Good security advice from Novak Djokovic Foundation

CONSIDERATIONS

1. Teachers are not being replaced by computers. Technology is an asset.
2. Do not use technology to babysit children. Kids learning increases when the teacher or parent is close by and also engaging.
3. Teachers need at least 10 hours of training on technology. Less than 10 hours often leads to negative learning for the children since the teacher does not really know how to use the tools
4. Kids need supervision on their devices. Never allow them to have screen time in isolation (their bedroom) and use tools like NetNanny and Kidoodle
5. Consider going Dark mornings and evening and especially during meals together.
6. Stop using any devices 30 minutes before you go to sleep to allow natural melatonin production.
7. Don't use a device in the dark. The blue light damages your photo receptors when used at night.
8. Have kids earn screen (TV or devices) time by reading time 1:1
9. Park your phones
    a. Don't multi-task
    b. Friends and even people attending a meetings should park their phones

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FINAL WORDS

1. Kids need person to person connection
2. We need to keep reinforcing that there are many ways to do something
3. Everything that is tradition can and should still be done in pre-school. Don't replace typical activities like outdoor play with technology.
4. Everything in balance.
5. Technology does not change the world. People change the world.
6. It's our responsibility to equip them to change the world.

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