

# Ten Tech Trends for Early Childhood Educators in 2015

Warren Buckleitner

For the eighth year, the mighty 'B's swarmed once again at NAEYC, for an annual panel called "Emerging technologies for empowering children: Showcasing innovative tools and pedagogies that transform teaching, and inspire learning." The 'B's are Mark Bailey, Pacific University; Bonnie Blagojevic, Morningtown Consulting; Diane Bales, University of Georgia and myself (Warren Buckleitner). This year I did a "Top 10" list, which forms the core of this article. Here's the video [https://youtu.be/cc\\_hn\]5r-AE?t=35m31s](https://youtu.be/cc_hn]5r-AE?t=35m31s)



"WITH GREAT CONNECTIVITY COMES GREAT RESPONSIBILITY"  
Mark Bailey

**10 Screen time is even harder to define.** What is a screen? The answer has become harder to answer in the past 12 months, the number of iOS screens has doubled from four to eight -- the current options range from little to big, from the tiny 38 mm watch to the apps running on Apple TV 4. "Screens" can now be immersive, projected, shown in 3D or VR — and they can work with or alongside books or toys.

**9 The Apple Pencil and the iPad Pro.** The iPad Pro makes you feel like you're driving a Lincoln Town Car... it's big, powerful, heavy, doesn't get the best mileage, and is expensive. But boy.... does it feel good. It makes apps look better and the fonts are bigger and seem easier read. There are shortcomings to note. It could be more easily damaged than the iPad if dropped, and it will be extremely easy to misplace the pencil, which also needs an occasional charge. The biggest advantage is the pencil, offering exact precision that makes former finger-driven iPad use feel clumsy. The bluetooth Apple Pencil does something else as well... it turns the iPad Pro into creative drawing experience unequaled by past finger driven experiences.



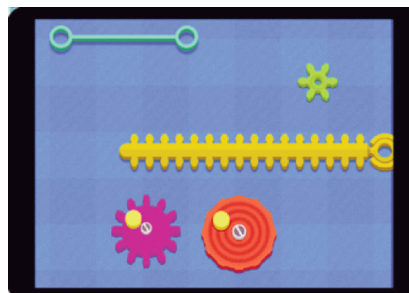
**8 Apple TV 4.** There have been many "nails in the coffin" for traditional TV. But Apple TV is one of the biggest nails. Why? Thousands of apps can now can "live" next to YouTube or Netflix on the big screen, in your living room or classroom. Wall sized touch screens have new affordances.

**7 Better apps for child empowerment.** This is a broad category of apps that enhances a child's feelings of "I can do it." There are many noteworthy titles, including **My Very Hungry Caterpillar**, all the **Sago Mini** apps, **Thinkrolls 2**, and general purpose apps with two player features, like **Grandma's Preschool**.



**6 Non fiction apps.** Now, more than any other time, we can teach a child to fish for their own answers, using tools like **Google**, **Google image search**, **YouTube**, and **YouTube Kids**. Noteworthy apps include the TouchPress titles (**Solar System**, **Inventions**, **The Orchestra**), and some of the Tinybop titles like **The Earth** and **The Human Body**.

**5 Virtual manipulatives** are getting more interesting. There is a growing category of apps that let children "think with their fingers." Maria Montessori might say these experiences offer "auto-didactic" feedback, and Piaget might say they fall between preoperational and concrete operational thinking. These include apps like **Busy Shapes**, **Crazy Gears** (right), and **Dragonbox Numbers**.



**4 YouTube Kids** is a single free app that can put a billion channel global TV in a child's pocket. It also gives you the ability to "change channels" with your voice. This app, combined with faster and more evolved Wi-Fi, brings new challenges and opportunities to early childhood education.

**3 IAP (In App Purchase).** 2015 has seen no shortage of shady business practice when it comes to making money from digital children's media. One area of concern is free apps. Why put cheap gas in a luxury car? A school should be viewed as a "luxury education system." But many parents and educators use free apps that can distract children and waste valuable learning time.

**2 VR (Virtual Reality).** This month, the New York Times distributed over one million Google cardboard VR headsets to their subscribers. It is now possible to purchase your own panorama camera for \$300 (see the Ricoh Theta M15). More content from such cameras is becoming available at [www.youtube.com/360](http://www.youtube.com/360). At Cinekid this year, children were making their own VR glasses, and building their own VR worlds. Both AR (augmented reality) and VR (virtual reality) products have greatly matured in 2015. By this time next year, the idea will be much more accepted. What does this mean for young children?



**1 Real reality.** We've all heard of VR (Virtual Reality). Thanks to the ideas of constructivism, we know that technology is often highly symbolic and abstract. That's why we need to make sure that we never forget about "Real Reality." It doesn't cost much. You can purchase a 76 piece homeowners tool kit for just \$19.97 at Home Depot that can be used to dissect old gadgets. That's less 27 cents per tool; a value that is hard to find in any type of digital technology.