

# 2014 Products to Ponder

by Warren Buckleitner

**2014** will forever be known as the year that **Flappy Bird** out-flew **Angry Birds**, and Microsoft offered \$2 billion for **Minecraft**. As we prepare for this year's Dust or Magic Institute, we're creating a list of noteworthy children's interactive products that must be discussed.

Whether or not these are examples of dust or magic are up for debate, and I fully understand that there are many products that could and should be on this list. That's why it's a work in progress right up until 5 PM on November 2nd. But here's my current attempt to summarize a very interesting year.

## SMARTER CAMERAS

Back in 2010, Microsoft's **Kinect** camera broke new ground with a novel camera-based interface. Four years later, the bar has been raised. For about the same price, you can get a much more powerful, smarter camera system that works better in different lighting conditions, can understand voice commands, work with Skype, and judge your dance moves. For example, **Zoo Tycoon** on the Xbox One uses your facial expressions to let you communicate with animals, and Sony's **The Playroom** for PS4 brings characters from the game out of the screen, onto the floor in front of you.

For tablets, apps like **Curious Ruler** can turn your iPad into a specialized measurement ruler, where you use common objects as units to calculate a second item's length or height. There's a new category of apps like **ColAR Mix** that uses AR (Augmented Reality) that starts with ideas that come from a child's crayon, of the wax variety. App designers today have the choice of tapping into an installed base of millions of smart cameras, that didn't exist four years ago.

When it comes to trying to pair an iPad with a toy or peripheral, many have tried but few have succeeded, which is why the future of the \$100 **Osmo** must be discussed. The three associated apps offer new types of play possibilities, and the social word game that makes a great party game.

## MORE SOPHISTICATED MULTI-TOUCH STORYTELLING

We explored digital storytelling in great detail in 2014 at both the Dust or Magic eBook Retreat (see this amazing lecture by William Teale <http://youtu.be/sg9ED-Fdsk5>) and later at the first ever Dust or Magic Bologna Masterclass, where we heard masterclass lectures from both Kate Wilson (for fiction) and John Cromie (for non-fiction). Wilson provided a case study in how she bends and molds a good narrative into an app.

Her example was **Jack and the Beanstalk**. We captured Cromie's excellent talk on Youtube. Wilson will repeat parts of her talk at this year's Dust or Magic Institute. Other apps like **Where's My Monster** and **Petting Zoo** are further evidence that tablet-based storytelling will have a permanent place in the future of storytelling.

## VIRTUAL WORLDS

Sooo... have you heard? **Minecraft** is in talks with Microsoft for a monster-sized buyout. Why is Minecraft so valuable, and how did a guy named Notch achieve such a great net worth in less time that it takes most people to finish an undergraduate degree? And what's happened to other virtual worlds, like **Webkinz**, **Club Penguin** and **Moshi Monsters**? Ask any child who has played Minecraft. It's not watered down, it doesn't try to "rip you off," and it creates a rich fantasy environment where you can safely interact with real people. It's sort of edgy, with "creepers"



## Minecraft: A 21st Century kind of gold mine

According to Bloomberg Business (link below) Microsoft is in talks (as of September 9, 2014) with Mojang to purchase Minecraft for \$2 Billion.

That's quite a ROI (Return on Investment) for Markus Persson who, according to Bloomberg founded Mojang in 2010 after he coded Minecraft on a lark in 2009 as a side project when he came home from working his day job at King.com, a U.K.-based gaming site.

By April 2011, Minecraft had sold more than 1.75 million copies.

Today, Minecraft runs on just about anything, including mobile devices, which explains why so many children are using their parents phones in restaurants.

According to the Bloomberg report, as of June, Mojang had sold more than 54 million copies of the game in all its forms and it was the No. 2 best-selling game by physical retail copies sold in July for the PlayStation 3 and Xbox 360, behind Sony Corp.'s The Last of Us for PlayStation consoles, according to research firm NPD Group Inc. It was the No. 3 game in June.

Minecraft was made available for the newest generation of consoles, Xbox One and PlayStation 4, earlier this month. See it in action: <http://youtu.be/y70joB8Tm0o>

From Bloomberg Tech <http://bloom.bg/1tuMAC4>



that will kill you in the dark (!), and it rides tried-and-true play patterns derived from childhood activities like playing tag and fort building. Minecraft undersells and overdelivers -- once you make the purchase, that's it. No more niggling. Most importantly, Minecraft fosters active learning. There are no tutorials, narrators or background music. Everything is child driven.

None of these ingredients are unique, but it took a programmer who also understood how to mix them together, named Markus Persson, to put it all together. In just four years, the company he started increased in value from \$0 to \$2 billion, and now he's cashing in. Now that's magic.

### 3D PRINTERS AND GOGGLES

Four years ago (2010), 3D was all the rage. You may recall the rush to make and sell 3D TVs and cameras; and all the theatres were passing out special goggles. That was also the year that Nintendo launched the 3DS. 2014 was also an important year for 3D, but not on the screen.

The 3D printer lets you make real tangle objects, and 3D goggles pull you even deeper into the experience, by removing other senses. Sony's **Morpheus** is out by this holiday, and the **Oculus Rift** kits are increasingly finding their way into living rooms. Each new hardware device will create a demand for new software.

### GAME CONSOLES (remember them?)

From a children's content point of view, E3 2014 was a dismal affair. Even Nintendo, who we've come to count on for exciting new releases, had few new titles to crow about (**Mario Maker** was one exception).

The headline grabbers were the add-on packs for **Skylanders** and **Disney Infinity**. So where's the content? Has every game already been invented? The reality is that children are spending less time on game consoles, and far more time with tablets. This might be why I think that Leapfrog picked a good year to launch **LeapTV** -- a plug-and-play stand alone game system that will run exclusive Leapfrog video-game style learning games as both download and on cartridges, on large HD screens at 720p. See <http://youtu.be/sH4mWdefPKg>.



### POWERFUL PEDAGOGY



From a teaching/learning point of view, which apps should we be discussing? **Slice Fractions** was the best example of a fun game mixed with solid pedagogy in 2014. We were lucky enough to have an in depth discussion with the creators at AppCamp 14 and we made a video, at <http://youtu.be/aIE6hDnzyVU>

We also liked **Todo Telling Time** because of the way it directly supported the school's curriculum; and **Quick Fractions** lives up

to the word "quick," by letting you draw your answers on screen. It's a firehose blast of hard practice, in a setting where the only limiting factor is your ability to enter the answers. You control the pace; a concept that not many app designers seem to understand. Another great example for younger children is **Busy Shapes**, which can have transformative effects on a young child.



Finally, this year, Ann McCormick launched an entirely unique

phonemic awareness curriculum on tablet called **Reader Bee**. It's a huge effort, with a new type of honeycomb based pedagogy. The method is solid but the presentation is unique. Will the public accept it?

### NEW WAYS TO SOCIALIZE

How do you socially engineer the mind of a preschooler? It's a concept already exploited by video game designers like Jon Smith of Traveller's Tales (TT Games); the guy who first figured out co-op play mode (or drop in, drop out game controls) that made LEGO Star Wars such a hit.

So what about the tablet?

Apps like **Sago Friends** are starting to make inroads. This is one of the few apps I've seen that exploits the "screen as a social mediator" idea. Another is **FingerPaint Duel**, where

you sit face-to-face with another player, with the iPad between you. You each see the same same target picture, and you both race to see who can most accurately fill in the spaces

between the lines with colors. The player who most accurately replicates the target gets the higher score. It's not just for iPads. See this video of Scholastic's iSpy, on a large screen Windows Device at <http://youtu.be/xrGdEWVJ2VM>. Then there's **Toca Hair Salon Me** which may just be the best party app ever made, for any age. But what about socializing with people who aren't in the room? Apps like Etter Studio's **Drei HD** gave me an important reminder of the power of VHI (Virtual Human Intelligence) as opposed to AI (Artificial Intelligence). This leveled collection of 48 shape stacking challenges starts easy, but the entire experience



changes when a second avatar floats onto the screen that is controlled by another player, that could be anywhere in the world. See the video review: <http://youtu.be/WHqu8lAWvhM>. It used to be that people thought that technology was socially isolating. Products like these prove otherwise.

## TRAINING WHEELS FOR FUTURE CODERS

2014 will go down as the year that programming became sexy once again, thanks in part to the massive PR push by **Code.org** and the release of apps like **Scratch Jr.** from MIT and Tufts. For less than you'd pay for a slice of pizza, you can load your child's iPad with fun programming puzzles that provide clear goals and built-in tutorials specifically to introduce children to some of the "big ideas" of programming: things like variables, functions, loops and if/then statements.

Besides **Code Studio** and **Scratch Jr.**, there's also **Lightbot**, **Lightbot Jr.**, **Tynker** and **Hopscotch**. These aren't full powered languages, but they are excellent training wheels for future coders.

## INNOVATIVE INTERFACES

There are many ways to control something that flies on a screen. You can use the arrow keys, or tilt the screen.

This year, one of the least efficient and most challenging also became one of the most popular. **Flappy Bird** has a horribly hard interface; and any novice has at least five crashes before reaching the first hurdle. You have to tell your finger to "not touch" in order to adjust the bird's altitude. Who would've predicted that intentional difficulty would become so popular? Too many children's apps have watered down challenges. The best apps build failure into their design.



Another head-turning bit of programming came from Moscow. **Bubl Draw** links a child's perception of color, sound and shape into one experience. You quickly learn that you can make a line into something musical by tapping it a second time; until the entire screen is pulsing with musical colors.

## HOOKS TO THE REAL WORLD

**World Landmark Explorer** by Peapod Labs makes links between classic photos and the real world, by way of Google Maps. Peapod is no stranger to capitalizing on free, open source content from Flickr and YouTube. This is the first time they've used Google



Maps.

## EASIER ACCESS TO TV AND MOVIES

Tablets can run all types of content, and more children are figuring this out. They're flooding to **YouTube**, and **Netflix** now has a way to create profiles for your children, at <https://help.netflix.com/en/node/264> and YouTube <http://www.google.com/preferences> lets you set up SafeSearch which can help you block inappropriate or explicit images from your Google Search results. The SafeSearch filter isn't 100% accurate, but it helps you avoid most adult content. It works on Chromebooks and Google Play.

## WHEREABLE TECH FOR KIDS

**Kidizoom Smart Watch** is a great idea because it has a touch screen. But the battery is weak and our testers broke the glass. There's also the **LeapBand**, but it requires a computer connection for charging and loading files. Of the two, Kidizoom is the best choice, but there's no doubt the smart watch kids category has room to grow and improve in 2015.

## AESTHETIC BEAUTY

My work with the annual BolognaRagazzi Digital Prize has helped me understand how Apps can deliver beautiful sights and sounds, and sometimes and graceful interactions.

Apps like **Double Double**, **Disney Animated**, **Petting Zoo** and **Astropollo** combined clever illustrations with just the right type of interactive control. Beautiful illustration will



never go out of style in app design. Need proof? Have a look at **Pierre et le Loup** (Peter and the Wolf), an app that blends animation, film and interactive media. See a sample

<http://youtu.be/85D330L6uLo>. This app was winner of the BolognaRagazzi Digital Prize non-fiction category.

This concludes this year's "Top 40" (or so) products to discuss for 2014. Perhaps the best thing about this list is it extends to far more than 40. This year saw incredible growth in both quality and quantity of children's interactive media.

I'm looking forward to expanding this list at this year's Dust or Magic.