

The Season for Entertainment Technology

End of Year Holidays

Much like the predictable placement of Academy Award fodder in theaters at the end of the year, a number of consumer technologies are also dropped onto the public to take advantage of the holiday buying season. Granted, it's no longer just the kids who get excited around this seasons, but increasingly adults have something to look forward to as well, as gadgets are becoming the "must have" for any member of the family. Whether it be the latest tablet, wearable, smart "thing", or even toy, the consuming public is often purposefully whipped into a frenzy over the "hot new thing" in the ensuing months. Many of these evolve from leaks, teases, or purposeful placement of release dates of a known in-demand item, in hopes of some companies closing out the calendar year on a high or starting a fiscal year with a head start, but rarely is it an altruistic nod to anybody's personal budget.

Gaming

First off, video games have always been a stalwart of the holiday season, lest it be a new console release to the much anticipated sequel to a popular franchise – the end of year season is often where these are "dropped". This year is no exception, with major cornerstone titles being released for the two major consoles and desktop PC market, and price drops and special one-of-a-kind bundles for those consoles already a few years long in the tooth. While Microsoft already dropped the price of their console several months prior due to lack luster sales of the Kinect feature, they are releasing a new Elite console that is less about the hardware (moving to a 1TB hybrid hard disk) that powers the device, but to the first major revision to their storied controller in nearly a decade. It's priced in such a way that it makes sense for some to buy a whole new console system than buy the controller alone. For Sony and their PlayStation 4, they are dropping their price respectively from an earlier adjustment made in Japan, and subsequently attempting to keep their sale momentum going, which as of this writing, is outpacing that of Microsoft. Appearing on all platforms this Winter is our own "Star Wars: Battlefront", which when tied into the global "must see event" of "Star Wars VII: The Force Awakens", fans of gaming and the movie franchise are getting a double dose of media to consume over the season. Franchise games are *de rigeur* for this year as well with follow ups to Tom Clancy's Rainbow Six, Just Cause, Tomb Raider, Call of Duty: Black Ops, Need For Speed, Assassin's Creed, and Xbox-only, Halo 5. However, a different blast from the past is returning, as the rhythm game genre, populated by Rock Band and Guitar Hero, which took a several year hiatus, are both back with new versions.

Displays

While we're not getting new virtual reality sets to go with our 3D sets this year, nor a plethora of 8K TVs to put our recently acquired 4K TVs in the dustbin, there are several new display technologies that are slowly making inroads with manufacturers to increase the quality of the picture without super gimmicky tie in. Introduced in 2014, DolbyVision is now in the first

reference sets from Vizio, along with HDR screens from Sony that are designed to bring richer, high contrast, and fuller color reproduction in line with the promise of Quantum Dot display technology. However, these sets, as with any major new advancement, come with a price, with 120" Vizio reference model costing \$130,000. While the technology is instantly noticeable in the improvement in quality, since consumers were pushed to go 3D, then 4K, and now the dynamic display enhancements with HDR and similar proprietary solutions, there's not enough to justify the outlay for many. As with most of these technologies, in a few years they will drop and the uptake by consumers will be greater.

However, the latest gimmick that appears to be finally delivering from the multiple years of hype is virtual reality (VR). While only a few years ago, primitive VR solutions demonstrated the promise of immersive display technology, but still suffered from glitches that varied from making the user sick to not having enough compelling content to justify the investment. Now, with the happy confluence of better hardware for display, tools for content creation, and novel ways to get that content (and tell stories as well) to the consumer have improved significantly. While awaiting the final release of Facebook's Oculus VR headset to the market, other players, from cell phone manufacturers to gaming hardware companies have entered the fray and released products well ahead of Oculus. One of the major technologies, and highlighted an earlier paper on mobile technology, noted that Google's Cardboard project have made VR easy and accessible by leveraging capabilities in smartphones already in the marketplace. However, this confluence of accessibility and the influx of players in the market, the major component, content, is still lacking and will remain the hobbling factor to VR rising above gimmick the way 3D was previously. This isn't entirely the technology's fault – as telling "stories" and working with the immersive nature of VR is difficult for content creators. Typically directors, like those for film and television, develop linearly, and VR takes that typical focused control out of their hands and puts it into the VR user. While this is suitable for things such as games, which have a loosely coupled story and are built to lead players down a path, other methods of entertainment still need tools and techniques, as well as time, to adjust. So, don't spend too much on your new VR rig this holiday season just yet.

Toys

The Walt Disney Company is leading the way in the realm of toys for the holiday season based on successful film franchises of the past year. With Marvel properties, the "Internet of Things" toys of Playmation, the multiple age levels of toys for the new Star Wars films, and Disney Infinity combination figure/video-game collections with version 3.0 released mid-year. While a unique tie in to properties with earlier released of Disney Infinity, the marketplace for these games and toys have diversified, now with Lego Dimensions, which takes on the building toy paradigm into the video gaming arena via the "toys-to-life" genre. What makes this more challenging to Disney Infinity, that unlike Skylanders, LEGO's own partnerships with various creative properties create a very diverse set of opportunities for players, even when Marvel and Lucasfilm (via Star Wars) had an existing relationship with the individual LEGO gaming series and building toys.

For more on the blend of tech and toys, Crayola, building on their Color Alive series, recently with augmented reality and 3D printing, now have Easy Animation Studio, using similar recognition technology, but via a poser figure to provide ways to digitize positions into their application. This is moving towards, like Playmation above, creative freedom for children to work with new digital tools to enhance creativity and interactivity with technology via play. While not exactly traversing to “smart toys” the interactive soft toys, such as dolls and stuffed animals are making a resurgence. While not Teddy Ruxpin 2.0, Fisher Price’s Smart Toy Bear is built around interactivity with its environment and owner as well as being cloud connected to store learned data (noting in product materials that no PII is transmitted), but also as a learning tool, a way for parents to track progress via such connected services. Similarly to the “toys-to-life” model noted above, interactivity with the child and toy occurs between cards and other accessories, keeping a single purchase relevant as the child ages and skills improve. While also aligning to higher-tech interactive toys, two types of remote-controlled toys are in demand this coming season. Drones of various configurations and complexity, ranging with prices appropriate to features and durability, are a popular item even if they have received less than stellar press and are starting to acquire the type of feedback about their use as cell phones in movie theaters are seen as. While released later than most articles detailing “what’s hot” for the holiday buying frenzy, namely due to the secrecy and need to control information about the film, our own BB-8 droid from “Star Wars: The Force Awakens” has topped discussions from children to adults as to “how does it work?” and is fostering curiosity into robotics. Introduced at CES 2015, Spin Master’s Meccano (like Erector sets in the US) Meccanoid robot platform works to bridge the building toy, like LEGO Mindstorms, with a more substantial and durable framework physically and computationally.