Week 2 Research

Title: **Mobile** phone makers battle **physics** to deliver high-definition apps.

Reference: Grant, I. (2010). Mobile phone makers battle physics to deliver high-definition apps.*Computer Weekly*, 14.

Link: <http://web.a.ebscohost.com.oclc.fullsail.edu:81/ehost/detail?vid=7&sid=3cc1c214-802d-4fc6-82a1-07c3273465a7%40sessionmgr4004&hid=4207&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=bth&AN=51902140>

Summary:

Users desire to hold the power of a fully HD computer in their cellular devices and that is a challenge for developers. Ian Grant shares some of the limitations that hinder this advancement. Speed is one of the factors.

Sending data across the earth and back takes time, at best 200 milliseconds It is impossible to send it faster than the speed od light. This makes coordinating feeds accurately difficult. Another limitation is wireless frequencies. While nations around the world are building LTE networks, these networks will never be able to compare with the speed of cable. Having the best camera on your device sounds ideal, but the videos create large files that can’t be sent over wireless networks. Essentially, what users want sounds great, but it just might rest outside the laws of physics.

1.

Title: Video Games and the **Physics** Engines That Drive Them.

Reference: Blickenstaff, J. (2013, September). Video Games and the Physics Engines That Drive Them. *NSTA Reports!*. pp. 22-23.

Link: <http://web.a.ebscohost.com.oclc.fullsail.edu:81/ehost/pdfviewer/pdfviewer?sid=3cc1c214-802d-4fc6-82a1-07c3273465a7%40sessionmgr4004&vid=8&hid=4207>

Sumamry: Physics engines have had their part in video games for decades. From Pong to Angry Birds, physics is integral to gameplay, although developers have been required to design the game with “cheats” to ensure the games are not slowed down die to processing times. Today physics engines compute hours worth of calculations to speed up game play in apps and video games, and in animated films.

2.

Title; Monster Physics

Reference: Monster Physics. (2012). *Children's Technology Review*, *20*(6), 10.

URL: <http://web.a.ebscohost.com.oclc.fullsail.edu:81/ehost/pdfviewer/pdfviewer?sid=3cc1c214-802d-4fc6-82a1-07c3273465a7%40sessionmgr4004&vid=8&hid=4207>

Summary:

Child Technolody Review featured Monster Physics, as a powerful educational experience for children. Allowing users to create and build machines from many different materials, even allowing them the ability to debug the design to improve them.

3.

Title: Working with Advanced Primary School Students in **Physics**.

Reference: Jankovic, L., & Cucic, D. (2010). Working with Advanced Primary School Students in Physics. *AIP Conference Proceedings*, *1203*(1), 1333-1335. doi:10.1063/1.3322366

Url: <http://web.a.ebscohost.com.oclc.fullsail.edu:81/ehost/pdfviewer/pdfviewer?sid=3cc1c214-802d-4fc6-82a1-07c3273465a7%40sessionmgr4004&vid=10&hid=4207>

Summary: Students who are advanced (or gifted) in areas of science and physics, requires educators who understand not only deeper levels of the subject, but also the skills to working with the children. Working with Advanced Primary School Students in Physics overviewed a study completed over five years, and showed great results from working with the children throughout different areas such as of testing, educating, experimenting, and competing.

4.

Title: Learning Physics by Listening to Children

Reference: Harlow, D. B., & Otero, V. K. (2005). Learning Physics by Listening To Children. *AIP Conference Proceedings*, *790*(1), 105-108. doi:10.1063/1.2084712

Url: http://web.a.ebscohost.com.oclc.fullsail.edu:81/ehost/pdfviewer/pdfviewer?sid=3cc1c214-802d-4fc6-82a1-07c3273465a7%40sessionmgr4004&vid=10&hid=4207

Summary:

Being able to communicate to and from children requires special skill. Since children use everyday wrods to express themselves, teachers need to be able to understand what a child is trying to say, especially when they do not have the proper vocabulary to express it. In Physics by Listening to Children, the research found that when teachers pay close attention to what the children are saying, they can then either confirm or correct the children, while having an opportunity to give them more accurate language at the same time. Being able to teach physics, requires the teachers to be able to listen.

5.

Title: Physics in Kindergarten

Reference: Flemming, I. (1994). Physics in kindergarten. *European Education*, *26*(2), 18.

URL: http://web.a.ebscohost.com.oclc.fullsail.edu:81/ehost/pdfviewer/pdfviewer?sid=3cc1c214-802d-4fc6-82a1-07c3273465a7%40sessionmgr4004&vid=10&hid=4207

Summary:

Does physics belong in Kindergarten? Surely structured lessons are not necessary, although in areas of free play, Physics in Kindergarten found many opportunities to allow children to discover foundations of physics. Laws of nature, gravity, and mechanics all can be naturally taught and experienced while children play. Without even giving the children technical terms, they can discover the wonders of physics and begin to build a small foundation for later lessons to build on.