My brother developed the general thread of this presentation to use as he talked with medical students that came through his simulation center. As the slide indicates, he is the Executive Director of the U of Wash Medical School Simulation laboratory.
How many know what this is? A true Digital Native probably does not know what this represents
The World is Changing
This is a video looking at how the world (specifically education) has changed and needs to change as we move ahead educating our Digital Native students.
Driving force is technology, specifically computers. This shows the “progress” that has been made since the first microcomputers were available.
Expand timeline since our students were born. Most of our students were born about 1995, which was when Windows 95 along with Internet Explorer was introduced. The internet has been at their disposal their whole lives. Since that time—cell phones, Smartphones, iPads 2010 have made access to the internet at their fingertips.
Rarely has there been a time when the field of education has had to accommodate learners with such a broad spectrum of technological skills - or lack there of -

Challenge to us as educators
Disruptive technologies have occurred over and over with time. Examples are:

In Education: Blackboards were replaced with overhead projectors which were replaced with powerpoint
Life is indeed full of change – how we respond is both an individual response and an institutional response.
How Are Generations Formed?  
What Make Generations Act As They Do? 

- Defining World Events 
- Parenting Trends 
- Life-Span 
- New Technologies

Step back and look at what defines a generation
List some generations

- **Lost** — born before 1900, those who fought in WWI
- **Greatest** — GI generation, born 1900-1920, came of age during the Great Depression, Stock Market collapse, bread lines, veterans of WWII
- **Silent** — born 1925-1945, fought in WWII, Victory gardens, quiet, hard-working Traditionalists, Rosie the Riveter, parents of early baby boomers
More recent generations that most of us are much more familiar with.

Baby Boomer – born 1946-1964, Howdy Doody, Generation Radical 1960’s counter culture, civil rights, equality for women, rock and roll, Woodstock, the Beatles, Elvis, Vietnam, first man on the moon, JFK, workaholics, service oriented, optimistic delayed gratification

Tweener – born between 1964-1968, ‘tweens’ between the boomers and the X’ers, computer pioneers like Bill Gates, conspicuous consumption, first Yuppies, Pong, Jiffy Pop, Forest Gump
The Millennials are the generation we are educating now
The Z Gens are also called the Net Gens
Millenials have gone by a number of different names

- Make up the majority of current students
- Most culturally diverse generation
- Technology is necessary
- Bookends: Challenger disaster and 9/11
- Value public safety and saving money
- Civic-minded and highly-educated
- “Soccer moms” and “helicopter parents”

Millennials are:
Word Cloud of a mixed group talking about the Millennials and Y-gens
The “older” generations tend to describe Millennials as:

Dumber –
Screenagers – physical activity secondary
Spoiled rotten
Intellectual property rights are ignored
News
Columbine, Newton, Conn
Drifting aimlessly, slackers, social networking on company time
Sun and World revolves around them
Have no values and don’t care about anyone else. Don’t read newspapers or watch TV news
The New Digital World is a world of Facebook, linkedin, twitter, myspace, Googledoc, adobe connect,
The Digital Native is one with this world
The New Digital World is a world of connections with the technology that supports Ubiquitous Computing.

Facebook, linkedin, twitter, myspace, foursquare, wikilinks

Googledoc, adobe connect, flash
The New Digital Native is different than any generation before

Googledoc, adobe connect, flash
When a Digital Native does research, he/she does the research differently. The library is “old” technology

Googledoc, adobe connect, flash
The internet is the technology of today. But it is also a problem for today.
And they do think that if it is on the net it must be true – opens a new challenge for us
The Internet needs to be Vetted

5 Point Website Analysis

1. Authorship

2. Publishing body

3. Point of view

4. Sources

5. Last updated
Image of the New Digital World
Digital Natives, Digital Immigrants, Bridges, and then the “outsiders”
How this new Digital World maps onto the Generations
Digital World Vocabulary

<table>
<thead>
<tr>
<th>&quot;Millennial Language&quot;</th>
<th>Translation for Everyone Else</th>
</tr>
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<tbody>
<tr>
<td>omg</td>
<td>Oh My God!</td>
</tr>
<tr>
<td>bon</td>
<td>Believe It Or Not</td>
</tr>
<tr>
<td>*$</td>
<td>Starbucks</td>
</tr>
<tr>
<td>mos</td>
<td>Mom Over Shoulder</td>
</tr>
<tr>
<td>g2g</td>
<td>Got to Go!</td>
</tr>
<tr>
<td>f2f</td>
<td>Face to Face</td>
</tr>
<tr>
<td>ttul</td>
<td>Talk To You Later</td>
</tr>
<tr>
<td>btw</td>
<td>By The Way …</td>
</tr>
<tr>
<td>rumof</td>
<td>Are You Male or Female?</td>
</tr>
<tr>
<td>rofl</td>
<td>Rolling On The Floor Laughing</td>
</tr>
<tr>
<td>idk</td>
<td>I Don’t Know</td>
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<tr>
<td>hbu</td>
<td>How About You</td>
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A new Digital language
<table>
<thead>
<tr>
<th>Digital Natives</th>
<th>vs</th>
<th>Digital Immigrants</th>
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<tbody>
<tr>
<td>Prefer receiving information quickly from multiple sources</td>
<td>Prefer slow and controlled release of information from limited sources</td>
<td></td>
</tr>
<tr>
<td>Prefer parallel processing and multitasking</td>
<td>Prefer singular processing and single or limited tasking</td>
<td></td>
</tr>
<tr>
<td>Prefer processing pictures, sounds, and video before text</td>
<td>Prefer to provide text before pictures, sounds, and video</td>
<td></td>
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<tr>
<td>Prefer random access to hyperlinked multimedia information</td>
<td>Prefer to provide information linearly, logically and sequentially</td>
<td></td>
</tr>
<tr>
<td>Prefer to interact/network simultaneously with many others</td>
<td>Prefer students to work independently rather than network and interact</td>
<td></td>
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<tr>
<td>Prefer to learn “just-in-time” from multiple sources</td>
<td>Prefer to teach “just-in-case” (it’s on the exam)</td>
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<tr>
<td>Prefer instant gratification and instant rewards</td>
<td>Prefer deferred gratification and deferred rewards</td>
<td></td>
</tr>
<tr>
<td>Prefer learning that is relevant, instantly useful and fun</td>
<td>Prefer to teach to the curriculum guide and standardized tests</td>
<td></td>
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Comparison of Digital Natives and the Digital Immigrants
The New Digital World and Its Digital Language

Natives and Immigrants are not homogenous populations

They are variably fluent in this new language

Natives, regardless of their fluency do not speak with an accent.
When faced with a problem
Immigrant works in a very linear, serial fashion to their solution
The Native works in a variety of ways, on a variety of questions, in short spans of time to reach their solution
We need to form that bridge over the gap
The Learning Environment is a very small overlap of several different environments
The Learning Environment can take on many new and different forms
We have to begin thinking out of the box. Forcing our students to learn the way we learned does not work any more.

We need to provide them with the tools that will help them to work on their problems the way they learn, not the way we learned.

We need to change the Educational Paradigm
Active learning, live audience participation - Poll Everywhere
Immediate feedback – padlet lets students build a “wall” which presents their thought process on reaching an answer
We need to ask the questions differently
Wikipedia is seen as the place to begin and has improved over the years. If nothing else, it has a great set of links to other data sources
In my 34 years, 3 curricular changes at CSB/SJU. This Cycle is way too long when looking at the rate of change of student learning and techniques used in student learning.
Video produced by a group of students highlighting their thoughts on how they are being taught versus how they are learning.
Today's child is bewildered when he enters the 19th century environment that still characterizes the educational establishment where information is scarce but ordered and structured by fragmented, classified patterns subjects, and schedules."
- Marshall McLuhan 1967
<table>
<thead>
<tr>
<th>Where Can We Go?</th>
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<tbody>
<tr>
<td>• Move away from ppt/lectures</td>
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<tr>
<td>• Bring simulation into first and second year classes creating an immediately useful curriculum</td>
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<tr>
<td>• Class for entering students on how to vet internet sites.</td>
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<tr>
<td>• Think out of the box with new ideas</td>
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<tr>
<td>• focus groups with entering students on digital technologies they use</td>
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<tr>
<td>• consider using social networking technologies for PBL’s Facebook, Linkedin, Twitter, Myspace Google Docs</td>
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<tr>
<td>• ‘crowd sourcing’</td>
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<tr>
<td>• mobile/ubiquitous computing</td>
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<tr>
<td>• webinars</td>
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<tr>
<td>• gaming ‘philosophy’, not necessarily gaming to medical education</td>
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</table>
We are but will be competing even more with these on-line educational “institutions”
We need to offer our students what they can get ON-Line, but much more
We need to help them LEARN as they LEARN NOT as we learned
Discussion

References and discussion