

# EMERGING TECHNOLOGIES IN EDUCATION

We live in an exciting time - technology is advancing at an incredible rate and making our lives easier.

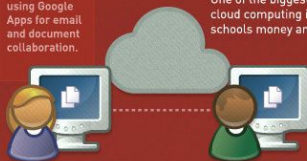
The 2011 Horizon Report<sup>1</sup> identified 6 new technology disciplines that we will start to see in the classroom. Some of them will take a couple of years to implement, but there are others you can start using today.

## NEAR TERM TECHNOLOGIES

### 1 CLOUD COMPUTING

#### EXAMPLE:

Michigan schools are using Google Apps for email and document collaboration.



Using web-based tools, students and educators can collaborate online. One of the biggest attractions of cloud computing is that it is saving schools money and resources.

### 2 MOBILE TECHNOLOGY

K-12 schools are increasingly seeing the potential of mobile devices — and noting that not only are the devices themselves less expensive than most laptops, they need less infrastructure to support them.



#### EXAMPLE:

Using iPhones, 5th - 12th graders are gathering and tracking GPS-tagged bird sightings for a WildLab program.



## IN TWO - THREE YEARS

### 3 GAMING

The productive role of play allows for experimentation, the exploration of identities, and even failure.



#### EXAMPLE:

Palm Beach Gardens high school is using a web-based game show format in their language arts program.

### 4 OPEN CONTENT



The role of open content producers has evolved as well, away from the idea of authoritative repositories of content and towards the broader notion of content being both free and ubiquitous. Schools are beginning to feel a social responsibility to create and share their content.

#### EXAMPLE:

K-12 wiki project Curriki allows for educators to contribute K12 science exercises.



Utilizing and developing content is no longer about being experimental; it has become the mark of a world-class institution.

## IN FOUR - FIVE YEARS

### 5 LEARNING ANALYTICS

Learning analytics promises to harness the power of advances in data mining, interpretation, and modeling to improve understandings of teaching and learning.



#### INSTRUCTIONAL TECHNOLOGY

Use of learning analytics to help educators design systems and approaches to better measure student outcomes and faculty development are on the horizon. It can lead to new ways of thinking and new technologies

#### MATH

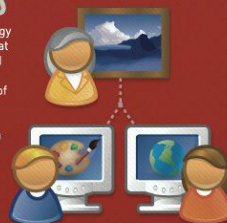
Early alert systems aimed at students studying essential early math concepts such as fractions can identify which students might learn best via an alternative strategy, such as manipulative, or a visual approach.

#### WRITING

The Visualizing Collaboration Knowledge Work project at Ball State University is designed to visualize collaborative writing processes in order to support stronger formative evaluation and empower student communities of practice.

### 6 PERSONAL LEARNING ENVIRONMENTS

A PLE is not simply a technology but an approach or process that is individualized by design, and thus different from person to person. Widespread adoption of PLEs, once the tools and approaches are clearer, will almost certainly also require a shift in attitudes toward technology, teaching, and learning.



#### DIGITAL LEGACY

As part of a research project on the student construction of personal learning environment, one 7th grade student models how she built and organized her own PLE in her Life Sciences class. In this personal tour, she demonstrates how she added her social media networks and blogs to enhance her learning experience