

## Evolving Technology in High School Education Through the Lens of NSU E-learning

Presentation to the Education Funding Formula Study Committee  
July 29, 2013



## Online Course Demonstration

- DDN Courses evolved from classroom instruction
- NSU E-learning online courses evolved from the DDN model
- Most online courses feature commercially developed content and are available in various forms from for-profit entities. The earliest date to 1997.



## Some features we really like

- Interactive class sessions
- Teacher availability
- Robust LMS
- Synchronous elements
- State-of-the art production platform
- Partnership with schools
- Typical K-12 structure



## The beginning . . .

- August 2000, the Digital Dakota Network
- August 2001, NSU Center for Statewide E-learning



Since August 2001, the Northern State University Center for Statewide E-learning has helped South Dakota districts meet **critical** educational needs.



More recently, NSU E-learning has played a pivotal role in providing AP Courses to un-served and under-served students.



### Then and now

- |                        |                           |
|------------------------|---------------------------|
| ■ 2001                 | ■ 2012                    |
| ■ 10 subjects          | ■ 16 subjects             |
| ■ 37 schools           | ■ 118 schools             |
| ■ 296 students         | ■ 1198 students           |
| ■ 20 daily DDN classes | ■ 33 daily DDN classes    |
| ■ 0 online classes     | ■ 11 daily online classes |



### What happened in the state?

- DDN got good – really good!
- DDN went from a curious anomaly to an everyday experience
- Good teachers learned to use the new technologies
- Widespread DDN use and acceptance paved the way for online learning

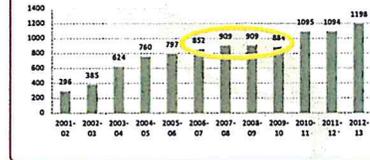


### And in the classroom?

- One computer per classroom became one computer per student
- Paper-and-pencil work was replaced by electronic work
- Readily available multi-media elements enriched classroom instruction
- Quizzes and tests went online
- Standard textbooks started being replaced by electronic textbooks



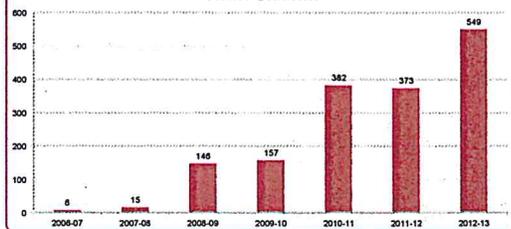
Students Served



Schools Served



Online Students



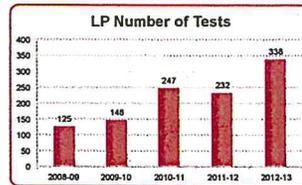
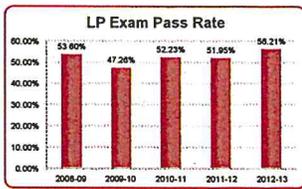
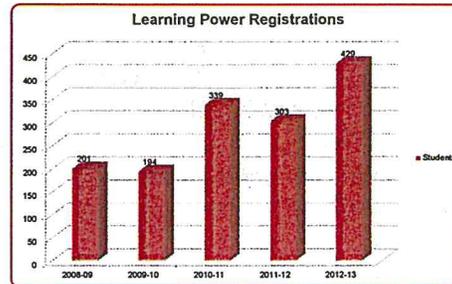
### Understanding the change

- |                  |                   |
|------------------|-------------------|
| ■ 2008           | ■ 2012            |
| ■ 8% online only | ■ 47% online only |
| ■ 91% DDN only   | ■ 16% DDN only    |
| ■ 1% both        | ■ 36% both        |



## Learning Power AP Courses

- 7 AP Courses
- Originally funded primarily through a NMSI grant (Exxon Mobile)
- Wonderful example of partnering:
  - TIE
  - DOE
  - BOR



## Implications

- Students and schools are meeting critical needs and expanding course offerings via technology
- Infrastructure is huge on the state and local levels
  - DOE and BIT increase bandwidth in 122 school districts
  - DDN upgrading to high-definition codecs
- Technical support is vital on the state and local levels



