The Next Generation
Digital Learning Environment

A Report on Research

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Next Generation Learning Challenges
1. Context: what is the issue?
   what’s the approach?

2. what are some of the key results?

3. resources and Q&A
Unlike any other

Complex & ambiguous

Need something really new

Each solution changes the problem

Wicked problems

Disruptive thinking

“Can’t just write a check”

Definition is itself a WP
administration of learning
digital learning environment
What I Learned From...
NGDLE: an EDUCAUSE Research Project

• Research on behalf of and supported by the Bill & Melinda Gates Foundation
• Exploration of experts’ views
• Interviews with individual or paired experts
• Small group sessions for input and discussion
• Large group gathering at the EDUCAUSE Annual Conference
• One end result: forthcoming white paper
Results of the Research (So Far)

http://tinyurl.com/lffk2yc (CC BY-SA 2.0)
Key Qualities for Progress

Interoperability and integration

Analytics and assessment

Personalization and customizing

Collaboration: inter and intra community sharing

Accessibility
Interoperability and Integration

http://tinyurl.com/ozl8xfw (CC BY-SA 2.0)
Common Standards

http://tinyurl.com/o63trtw
Standardization across platforms

Online Learning Activities
- Lessons
- Quizzes
- Exercises
- Adaptive tutors
- Digital media
- Simulations

Interactive Whiteboard & Classroom Response Activities
- Lessons
- Interactive polling
- Quizzes
- Digital media
- Simulations

Formative Assessment

Raw Data, Score & Evidence Exchange

Summative Assessment

Student Record

Interactive Analysis & Reporting Tools

http://tinyurl.com/kob4fxc
Open platforms

http://tinyurl.com/k62uasz
data + analysis

- course progress
- degree progress
- dashboard UX
- teaching analytics
- early alerts
- student facing
assessments

multi-modal

team-based

outcomes based

e-portfoli0
Personalized
Personalization

Tailored to the learner

Promoting sharing

Encouraging “tinkerability”
Collaboration

( CC BY-NC-SA 2.0 ) http://tinyurl.com/m2enw6j
Accessible design
Accessible design

make accessibility part of usability

invest in open standards

higher quality authoring tools

video fastest growing medium; most are not fully accessible

personalization, customization, profiles

privacy vs. revealing disability or special need

fellow students need to know about the requirements of their fellow classmates
make accessibility part of usability
<table>
<thead>
<tr>
<th>desired functions</th>
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<td>integration of discipline</td>
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<tr>
<td>specific apps</td>
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<tr>
<td>easy to adapt to teaching styles and disciplines</td>
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<td>an ecosystem that connects systems and apps</td>
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<td>ways to connect and engage beyond the classroom</td>
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<td>analytics: student progress, alerts, predictions</td>
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<td>usability &amp; interoperability</td>
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<td>interoperability; federated ID management enable collaboration and social interaction</td>
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<td>clear, customized, self-paced learning/degree pathways</td>
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<td>core function areas</td>
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<td>----------------------------------------------------------</td>
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<td>interoperability and integration</td>
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<td>accessible UX</td>
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The Current Ecosystem of Learning Management Systems in Higher Education: Student, Faculty, and IT Perspectives

http://tinyurl.com/ecarNGDLE
report
Questions?
THANK YOU