MI Roadmap: Transforming Education Through Technology

May 5, 2017

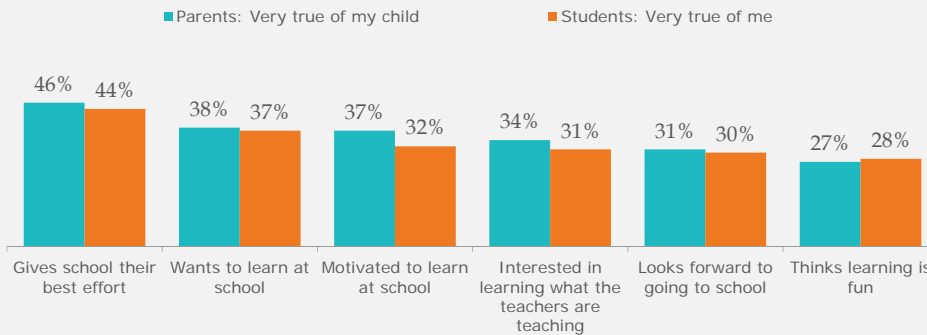flickr Welcome by Michael Pardo is licensed under CC0 1.0

Equity & Access

No matter where students live, they should have access to the same high-quality educational opportunities as any other student in Michigan.

Likewise, teachers across the state should have equitable opportunities to learn and excel in their profession no matter where they live and teach.

MDE Top 10 in 10 Years, Goals and Strategies, 2016

Parents and students have similar (and low) views of regarding the degree to which students are engaged with school and are motivated to learn
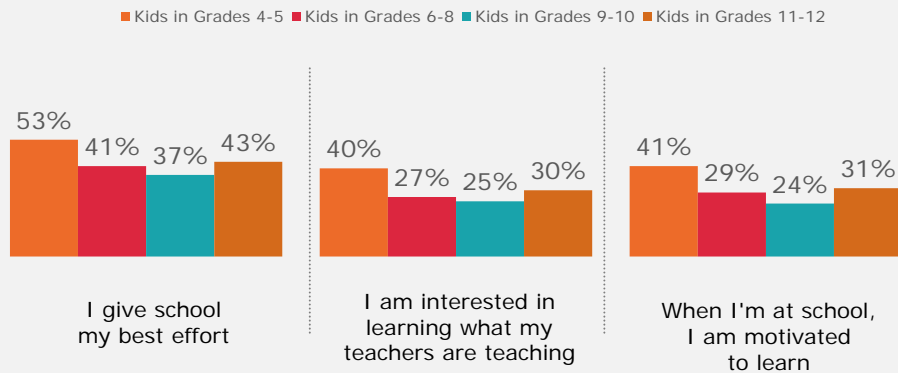
Student' and Parents' Views on Student Effort and Motivation
2016

■ Parents: Very true of my child   ■ Students: Very true of me

	Parents	Students
Gives school their best effort	46%	44%
Wants to learn at school	38%	37%
Motivated to learn at school	37%	32%
Interested in learning what the teachers are teaching	34%	31%
Looks forward to going to school	31%	30%
Thinks learning is fun	27%	28%

Data has remained consistent from 2015
QP03. How true is each of the following in describing your child?
QK11. How true is each of the following for you?

Motivation and engagement wanes as students transition from elementary to middle to high school

% of Students Who Say Statement is VERY TRUE of Me
2016

■ Kids in Grades 4-5   ■ Kids in Grades 6-8   ■ Kids in Grades 9-10   ■ Kids in Grades 11-12

	Grades 4-5	Grades 6-8	Grades 9-10	Grades 11-12
I give school my best effort	53%	41%	37%	43%
I am interested in learning what my teachers are teaching	40%	27%	25%	30%
When I'm at school, I am motivated to learn	41%	29%	24%	31%

Data has remained consistent from 2015
K11 - VERY TRUE OF ME - How true is each of the following for you?

Based on the six waves of research that inform this work, student disengagement can be traced to four main issues:

Students are not convinced that the content being taught and the ways it is being taught* is meaningful	Kids believe that academic achievement and classroom engagement put social standing at risk	Kids are too-ready to give themselves a "pass"	Students don't feel free to be themselves, and don't always see school as safe and welcoming
1	**2**	**3**	**4**

video

[Personalized Learning at Summit Public Schools](#)

FITTING THE PIECES TOGETHER

resources

accessibility

LEADERSHIP
Setting the vision

LEARNING

ASSESSMENT
Understanding learning progress

TEACHING
Putting vision into practice

connectivity

devices

INFRASTRUCTURE
Providing accessibility, resources and connectivity so that learning is **everywhere, all the time**

Students and parents feel its important for teachers to give students choice over content and ways in which students can demonstrate what they learn– but few say these choices happen in their schools

Teachers Giving Students Choices About Content They Learn and Demonstrating What They Learn

2016

■ % of respondents who agree this is absolutely/very important in receiving a great education
■ % of respondents who say this describes child's school very well

Students

- Teachers give students choices about the content they learn: 87% / 36%
- Teachers give students choices about how they demonstrate what they have learned: 89% / 38%

Parents

- Teachers give students choices about the content they learn: 72% / 37%
- Teachers give students choices about how they demonstrate what they have learned: 89% / 43%
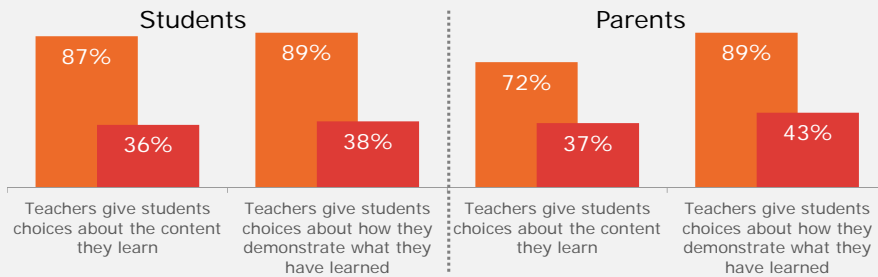
Data has remained consistent 2015.
Additionally, this data was displayed in Section 1 and is repeated here for additional context on choice in schools.
QP07/K22. How important do you think each of the following are in making sure that students in your child's school receive a great education?
QP08/K23. Thinking about these same things, how well does each describe your child's school?

While 65% of students say knowing how well they are doing in class(es) describes their school very well, only 4 in ten say the same for setting goals and receiving choices from teachers throughout the day

% of Students Who Say Each Item Related to Student Voice and Empowerment Describes Their School Very Well, By Child's Grade
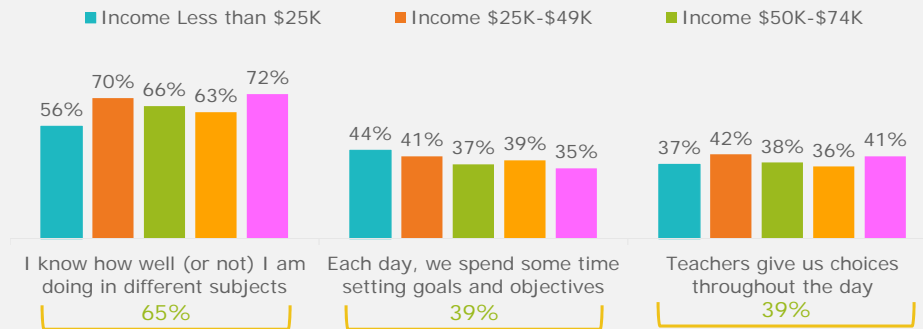
2016

■ Grades 4 - 5 ■ Grades 6 - 8 ■ Grades 9 - 10 ■ Grades 11 - 12

I know how well (or not) I am doing in different subjects
63% 66% 66% 67%
65%

Each day, we spend some time spending goals and objectives (-9)
48% 44% 32% 30%
39%

Teachers give us choices throughout the day
49% 38% 34% 32%
39%

Callouts indicate change from 2015
QK_Voice_01. How well does each of the following describe your school?

8

4

Despite being more likely to spend time setting goals and objectives, students in lower-income homes are less likely to be receiving feedback on how well they are doing in school

% of Students Who Say Each Item Related to Student Voice and Empowerment Describes Their School Very Well, By Household Income
### 2016

■ Income Less than $25K   ■ Income $25K-$49K   ■ Income $50K-$74K

I know how well (or not) I am doing in different subjects
56% 70% 66% 63% 72%
65%

Each day, we spend some time setting goals and objectives
44% 41% 37% 39% 35%
39%

Teachers give us choices throughout the day
37% 42% 38% 36% 41%
39%

QK_Voice_01. How well does each of the following describe your school?

Eight in 10 parents and students say technology makes a big or really big difference in learning

Difference Technology Would Make in Helping Students Learn
2016

Parents

- ■ A really big difference — 44%
- ■ A big difference — 35%
- ■ A difference, but not really a big difference — 17%
- ■ A little difference — 2%
- ■ It would not make a difference — 2%

Students

- A really big difference — 45%
- A big difference — 35%
- A difference, but not really a big difference — 16%
- A little difference — 2%
- It would not make a difference — 3%

Data has remained consistent from 2013
P08B/K26D Overall, how much of a difference do you think technology could make in helping you/your child learn? By technology, we mean not only the devices that student use (like computers, laptops or tablets), but also the programs, apps or websites that are used on a device.
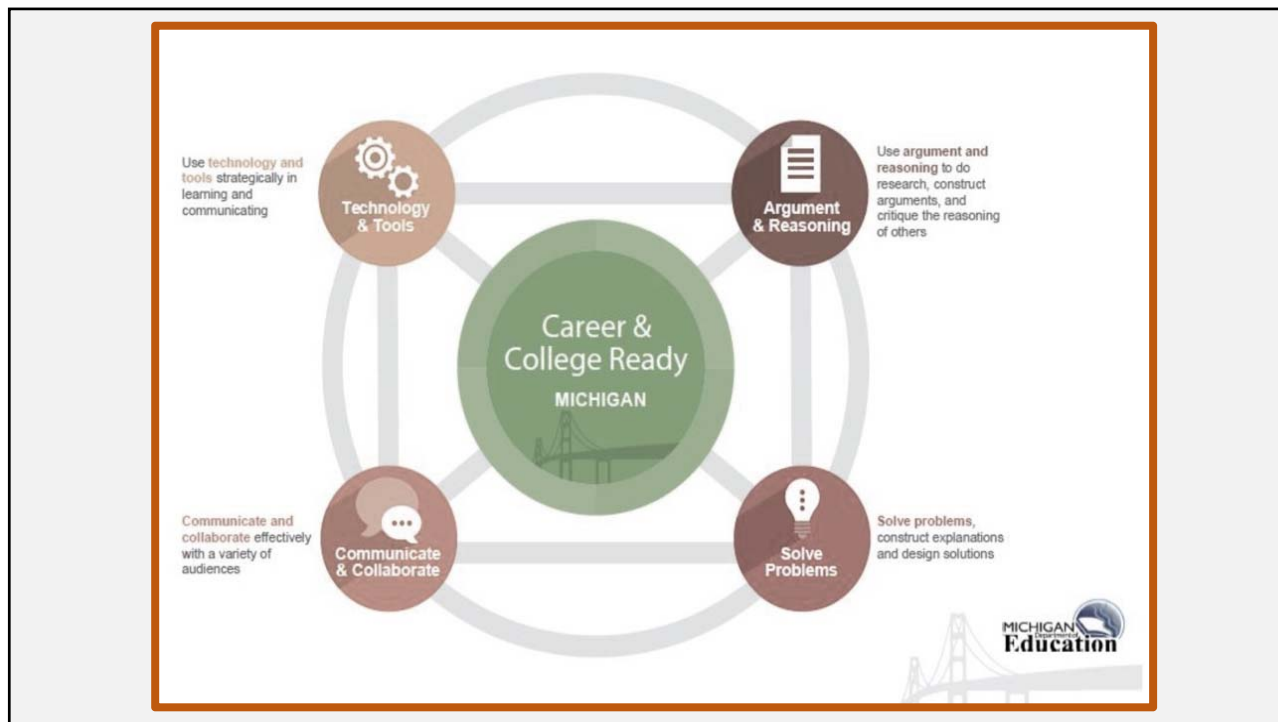
Almost all Michigan parents feel that activities related to 21st century skills are important for their child to be able to do
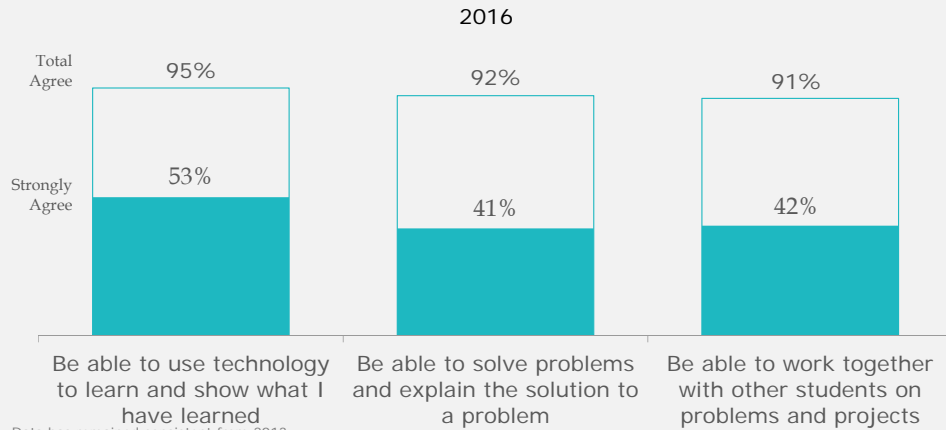
% of Parents Who Agree That Each Activity Related to
21st Century Skills is Important For Their Child to Do
2016
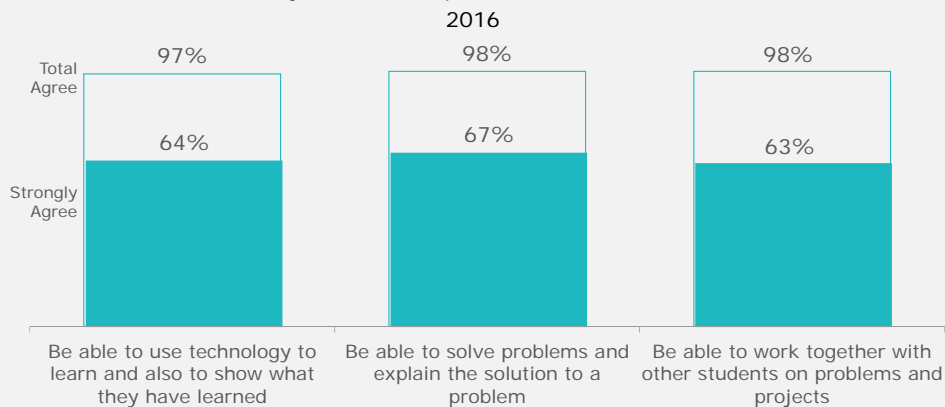
Data has remained consistent from 2013
QP02. Please select one response from the scale below for each statement, to tell us how you think about different areas of your child's school and life. I think it is important for my child to…

Students overwhelmingly agree with parents on the importance of 21st Century Skills

% of Students Who Agree That Each Activity Related to 21st Century Skills is Important For Them to Do

2016

Total Agree: 95%   92%   91%

Strongly Agree: 53%   41%   42%

Be able to use technology to learn and show what I have learned

Be able to solve problems and explain the solution to a problem

Be able to work together with other students on problems and projects

Data has remained consistent from 2013
QK10. And now this one is about what you think. For each, please select one of the four responses. I think it is important to...

For students who have access to technology outside of a computer class, it is most commonly accessed through a lab/media center

Access to Computers and Tablets, Among Students Who Say They Have Access at School Outside of Computer Class

2016

- 25% ■ There are a few in my classroom(s) that are shared
- 45% ■ There is a lab/media center where we can go to use these
- 8% ■ There is a mobile cart of these devices that gets moved from classroom to classroom
- 23% ■ Each student has a laptop or tablet to use (that is, there is a device for each student)
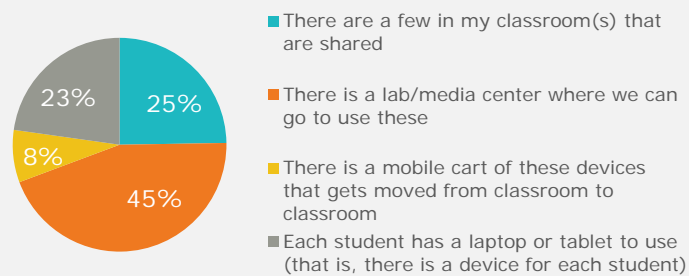
Data has remained consistent from 2015
QK26C. Which one of these best describes the access you have to computers or tablets in school?

Parents believe in the value of technology and feel it supports both student engagement and achievement, along with personalization and learning outside the classroom
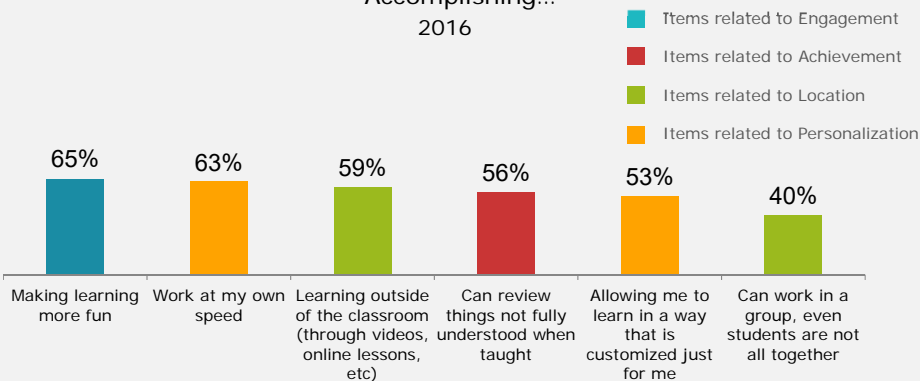
% of Parents Who Say Technology Would Be Very Helpful in Accomplishing...
2016

- Items related to Engagement
- Items related to Achievement
- Items related to Location (i.e., "Any Place")
- Items related to Personalization

70%	67%	65%	62%	61%	49%
Giving my child a way to learn outside of the classroom (through videos, online lessons, etc)	Making learning more fun	Providing ways for my child to review things they may not have fully understood when the teacher taught it	Creating a learning experience that is customized to the needs of my child	Allowing my child to work at his/her own speed	Providing ways for my child to work in a group, even if the students are not all together

Data has remained consistent from 2015
P08D. Which of the following do you think technology would be very helpful in accomplishing? Please select all that apply.

Students Value Technology

% of Students Who Say Technology Would Be Very Helpful in Accomplishing...
2016

- Items related to Engagement
- Items related to Achievement
- Items related to Location
- Items related to Personalization

65%	63%	59%	56%	53%	40%
Making learning more fun	Work at my own speed	Learning outside of the classroom (through videos, online lessons, etc)	Can review things not fully understood when taught	Allowing me to learn in a way that is customized just for me	Can work in a group, even students are not all together

Data has remained consistent from 2015
K26F. Please check all of the things that you think technology is very helpful in doing for you as a student. Please select all that apply.

Wide gap between parents who say using technology for customized learning experiences is important and those who say this describes their school "very well"

Parents' Views on
"Using technology so students can have learning experiences customized just for them"

2016

Absolutely/Very Important to a Great Education

89%

Describes School "Very Well"

56%
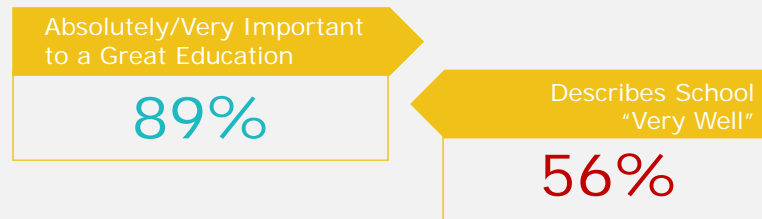
Data has remained consistent from 2015
QP07. How important do you think each of the following are in making sure that students in your child's school receive a great education?
QP08. Thinking about these same things, how well does each describe your child's school?

Technology

- Increase student engagement (active vs passive learning)
- Bring personalized learning to scale (individual pacing and sequence)
- Empower learners (creators)
- Closely assess where learners struggle and need supports

Collaborative Effort

Michigan 10 in 10 Strategic Plan

Alignment with Top 10 in 10 Years

Top 10 in 10 Years Strategic Goals	Alignment within MI Roadmap
Goal 1. Provide every child access to an aligned, high-quality P-20 system from early childhood to post-secondary attainment – through a multi-stakeholder collaboration with business and industry, labor, and higher education – to maximize lifetime learning and success.	MI Roadmap is focused on a vision for learning transformation supported by strong collaborative partnerships with stakeholders.
Goal 2. Implement with strong district and building leadership, high-quality instruction in every classroom through a highly coherent, child-centered instructional model where students meet their self-determined academic and personal goals to their highest potential.	Students are at the center of MI Roadmap, which supports a personalized learning model that will prepare all students for success in life.
Goal 3. Develop, support, and sustain a high-quality, prepared, and collaborative education workforce.	Through intentional collaboration, support, and leveraging of resources as described in this plan, educators will develop the skills necessary to prepare students for their future.
Goal 4. Reduce the impact of high-risk factors, including poverty, and provide equitable resources to meet the needs of all students to ensure that they have access to quality educational opportunities.	Equitable access for all students is a key tenet of MI Roadmap. Access to high quality educators, content, technology, and learning opportunities must be the right of each student, regardless of zip code or circumstance.
Goal 5. Ensure that parents/guardians are engaged and supported partners in their child's education.	Partnering with families, communities, and other stakeholders is a priority throughout the plan.
Goal 6. Create a strong alignment and partnership with job providers, community colleges, and higher education to assure a prepared and quality future workforce, and informed and responsible citizens.	The plan supports learning aligned with students' talents, skills, and interests; and supports personalized pathways developed and nurtured through experiences with higher education, community agencies, and job providers.
Goal 7. Further develop an innovative and cohesive state education agency that supports an aligned, coherent education system at all levels (state, ISD, district, and school).	Alignment of systems, resources, and efforts is crucial to the successful implementation of MI Roadmap. Goals and strategies challenge all educational partners to collaborate in new ways to propel learning transformation.

Designing Next Generation Learning

- Learner-driven
- Personalized
- Deep and applied
- Competency-based
- Tech-enabled
- Equitable

Goal One: Learning

Learners will have engaging and empowering learning experiences in both formal and informal settings in order to learn the skills necessary to become global citizens successful in the workplace and society.

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Learning Strategies

- Leverage technology to create learning pathways

- Create environments wherein students:
  - Utilize technology and tools strategically in learning
  - Apply argument/reason to inform research, construct arguments
  - Design solutions to problems
  - Collaborate, communicate, and express themselves creatively for local and global audiences and purposes
  - Understand the rights and responsibilities of living, learning, and working in a digital world, and demonstrate behaviors that are safe, ethical and self-aware

Goal Two: Teaching

Educators will be supported in understanding the skills necessary for students to become global citizens successful in the workplace and society; and in using instructional technology as an accelerator for student learning.

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Teaching Strategies

• Increase teacher competencies in designing curriculum, instruction, and assessment with technology integration

• Design personalized learning opportunities for teachers to effectively use digital tools and resources and become lifelong learners and leaders

• Develop a system that supports educators in personalizing instruction through technology-enabled use of student data

Goal Three: Assessment

Learners and educators leverage technology to productively measure competency and provide meaningful feedback to support the personalization of learning for all students.

Assessment Strategies

• Support districts in developing a culture of balanced assessment and ensuring stakeholders become assessment literate

• Assist educators in developing ways to measure student mastery of standards and competencies in a personalized learning system

• Engage educators in exploring emerging technologies that support instructional engagement and assessment

• Ensure districts utilize a common data standard to collaborate with and share screening, formative, interim, and summative data sets

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Goal Four: Leadership

Educational leaders will create transformational, equitable, technology-rich environments supporting a vision for personalized learning.

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Leadership Strategies

- Create a shared vision for 21st century learning that leverages technology and other resources to support learning, teaching, and assessing

- Develop a coherent personalized learning system for all students and educators

- Support leaders in creating a robust infrastructure and building human capacity necessary to fully implement a vision for transformative learning enabled by technology

- Ensure that educators access opportunities for personalized professional learning.

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Goal Five: Infrastructure

Learners and educators will have access to a robust, secure, and comprehensive infrastructure to support everywhere, all-the-time learning.

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Learning Strategies

- Ensure learners and educators have equitable access to technology-rich, everywhere, all-the-time learning

- Provide learners and educators with access to high-quality digital content supporting transformational learning experiences

- Support implementation of student data and privacy policies governing access to educator and learner data, and ensure that educators, students, and families understand their rights and responsibilities concerning data

Digital resources

Teaching, learning, assessment, and research resources, such as:

Textbooks, online courses, lesson plans, learning objects (images, maps, videos, games, simulations, performance tasks)

Openly Licensed vs. Free vs. Proprietary

Type	Cost	License	Flexibility	Example
Openly Licensed Ed Resources	Free/minimal (printing)	Open license – Creative Commons, etc.	Yes, remix/revise, some restrictions may apply	MI Open Book Project
Free Digital Learning Resource	Free	Copyright Restricted	Varies; limited without permission from creator	Smithsonian Education
Proprietary Digital Textbook Resources	Varied	Copyright Restricted	No	Commercially published digital textbooks

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Openly Licensed Educational Resources

- Retain (make, own, download, copy)
- Reuse (website, video, in a class)
- Revise (adapt, adjust, modify, alter, including translation)
- Remix (combine with other material to create new work)
- Redistribute (share copies of the original or revisions)

Next Steps

- Continue to share with stakeholder groups
- Work with stakeholder groups on implementation planning
- Establish target timelines for implementation and priorities
- Refresh the 2009 Michigan Educational Technology Standards for Students (METS-S)

How can we leverage technology to:

- Personalize learning
- Differentiate supports
- Foster deeper learning
- Increase student engagement

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Background

In February 2016, Michigan became a #GoOpen state (1/19)

- Adopt and implement a technology strategy that includes OERs
- Develop and maintain a statewide repository for OERs
- Call for #GoOpen districts (5)
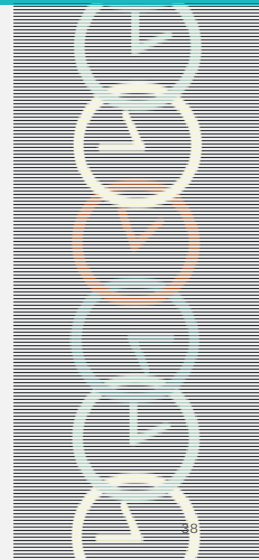
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Michigan Open Book Project

- K-2 (in development)
- 3rd Grade Michigan Studies
- 4th Grade United States Studies
- 5th Grade United States History
- 6th Grade World Geography
- 7th Grade Ancient World History
- 8th Grade United States History
- High School United States History
- Economics and You
- Civic Life (in development)

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#GoOpen Community Launched November 18, 2016

- Developing a system
- Stakeholder involvement
- Timeline 2017-2018

#GoOpen Michigan Community

Why OER/Digital Content

- Personalize learning
- Support competency-based education
- Student and educator engagement
  - Teachers have more freedom to design learning experiences
  - Students can create OERs while learning
- Streamline content delivery

- Customizable experiences
- Unlimited possibilities
- Flexible, not static
- Free, minimal costs
- Savings can be diverted to teaching and learning

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#GoOpen Community

1) Establish a statewide "home" for OER – ensure ADA compliance
2) Curate and vet existing resources
3) Coordinate across organizations
   - Targeted communications
   - Professional learning

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Questions?

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