WDE

Wyoming Digital Learning Plan

2023-2028

Instruction & Learning

Digital Literacy & Digital Citizenship

Data Privacy & Security

STUDENT-CENTERED LEARNING

Human Capacity

Robust Infrastructure & Education Technology

Community, Higher Ed, School, & Family Collaboration

Supported by *State and Local Vision and Leadership*

Wyoming Department of Education

122 W. 25th St., Ste. E200 | Cheyenne, WY 82002
P: 307-777-7675 | F: 307-777-6234 | edu.wyoming.gov

Wyoming Digital Learning Plan Advisory Panel

Special thanks to members of the Digital Learning Plan Advisory Panel who generously shared their time and expertise to guide development of this plan. Working collaboratively, the Panel has developed a plan that ensures Wyoming students have the digital learning opportunities they need to meet the demands of a technological society—whether in the workplace, the military, or postsecondary education.

AARON BAHMER, Instructional Technology Director, Eastern Wyoming College

ZACH BEAM, STEM Teacher, Weston County School District #1

NATHAN BRENNAN, Rate Analyst, Public Service Commission

EMILY BROWN, Instructional Designer, University of Wyoming

JARAUN DENNIS, Technology Director, Uinta County School District #1

DREW DILLY, Chief Data Officer, Wyoming Department of Enterprise Technology Services

BRIAN FARMER, Executive Director, Wyoming School Board Association

TIM FOLEY, Assistant Superintendent, Park County School District #6

TODD GHORMLEY, Instructional Facilitator of Technology, Fremont County School District #14

BRIAN GREENE, Library Development Manager, Wyoming State Library

NECOLE HANKS, Science Teacher, Park County School District #1

DEBBIE JACOBSON, Technology Integration Administrator, Laramie County School District #1

JOSHUA JEROME, Technology Director, Carbon County School District #1

CALLIE LEMPKA, Graduate Assistant, University of Wyoming

JAMIE MARKUS, Wyoming State Librarian, Wyoming State Library

JEFF MILLER, Educational Developer, University of Wyoming

GEORGE MIRICH, Superintendent, Niobrara County School District #1

KRISTY NELSON, Instructional Facilitator, Fremont County School District #1

ANTHONY SWENTOSKY, Curriculum Director, Teton County School District #1

JESSICA TOMS, Graduate Assistant, University of Wyoming

OKSANA WASILIK, Instructional Designer, University of Wyoming

MIA WILLIAMS, Assistant Professor, University of Wyoming

Ex Officio Members

LAUREL BALLARD, Innovations Officer, WDE

MARK BOWERS, School Support Division Lead Team Supervisor, WDE

ROBIN GRANDPRE, Project and Performance Manager, WDE

LAUREL HENRY, Vision Outreach Consultant, WDE

STEVEN PRIEST, Education Program Consultant, WDE

KEN REYNOLDS, Information Technology Supervisor, WDE

LORI THILMANY, Virtual Education Program Manager, WDE

Table of Contents

Introduction

Wyoming's 2017-2021 Statewide Digital Learning Plan (DLP) stated that "Wyoming has a powerful opportunity to harness technology, as an extraordinary resource, to our advantage. Information technology can help Wyoming grow an economy that overcomes the obstacles of distance and time. It has the potential to engage students and promote deeper understanding of concepts and skills (p. 6)."

When the 2017-2021 plan was written, no one could have predicted the dramatic, and rapid, change in the use of technology for teaching and learning that resulted from the COVID-19 pandemic. The schools that were well prepared for this change had experience implementing one-to-one programs, provided teachers with professional development on the use of educational technology, or had access to high-speed internet in their community. Although we cannot predict another pandemic, over the next five years students will be faced with an ever-changing technology landscape that requires teachers and students to utilize technology to support student learning.

The 2023-2028 plan is designed to respond to state statute and ensure all Wyoming students have access to high-quality digital learning opportunities that prepare them for postsecondary education, the workplace, and life in a technology-driven world. This plan promotes the effective use of technology to support student-centered learning which includes students' active participation in the learning process and choice in how they acquire and demonstrate learning. In addition, student-centered learning fosters student autonomy, responsibility, and accountability for learning and includes mutual respect between teachers and students. Student-centered learning provides benefits for students by:

- Nurturing opportunities for ongoing collaboration with peers, educators, families, and a global community of peers.
- Building on prior knowledge to deeply reinforce essential skills, such as executive functioning, critical thinking and reasoning, creativity, communication, cross-cultural understanding, and decision-making.
- Providing means of authentically connecting students' learning to the world beyond their physical learning environment.
- Fostering student agency to set personal learning goals and plans and continuously monitor and evaluate their own progress. (California State Board of Education, 2021, p.1)

The Wyoming DLP serves as a statewide educational technology plan with recommendations for actions that the Wyoming Department of Education (WDE), higher education institutions, districts, and schools can take to ensure equitable access to digital learning opportunities for students across Wyoming. The recommendations acknowledge the important role that each part of the education system plays in providing opportunities for educators and students to understand and effectively use technology for learning.

Definition of Digital Learning

As defined in the Every Student Succeeds Act (2015), the term "digital learning" refers to "any instructional practice that effectively uses technology to strengthen a student's learning experience and encompasses a wide spectrum of tools and practices" (p. 1969). This includes:

- Interactive learning resources, digital learning content (which may include openly licensed content), software, or simulations, that engage students in academic content.
- Access to online databases and other primary source documents.
- The use of data and information to personalize learning and provide targeted supplementary instruction.

- Online and computer-based assessments.
- Learning environments that allow for rich collaboration and communication, which may include student collaboration with content experts and peers.
- Hybrid or blended learning, which occurs under direct instructor supervision at a school or other location away from home and, at least in part, through online delivery of instruction with some element of student control over time, place, path, or pace.
- Access to online course opportunities for students in rural or remote areas. (p. 1969)

The DLP is focused on the use of educational technology to enhance instruction and learning and recommendations in the plan reflect that focus.

Spotlight - Student-Centered Learning in Upton, Wyoming

Darian Samuelson, a high school science teacher in Weston County School District #7, employs a variety of methods her students can use to personalize their learning experience. Samuelson provides direct instruction at the top of a unit like many other teachers, but after that, allows students to begin practicing mastery of that instruction based on methods that work for them. Students tell her which learning methods they enjoy and what helps them to understand new information with the most ease. Samuelson is constantly reflecting on her classroom tactics and getting student input which also facilitates the student' understanding of how they learn best and teaches them to self-advocate.

Based on the independent work from direct instructions, students take feedback from Samuelson to choose what assignments or methods they will use on their own to master the standard. Samuelson has vetted several resources students can choose from which are all available both through the online classroom she's created on the Canvas learning management system as well as in the physical classroom. There are options for all learners including auditory, visual, and kinesthetic, those who prefer working digitally, those who prefer not using technology, or a mixture of both. She offers a choice board and also allows the students to suggest methods to explore their learning whether it be a new technology to try, pairing a content standard from another course, or an experiment they saw on Tik Tok. Samuelson rarely says, "no" to students who wish to try something different, and lets students explore their interests by selecting approaches that fit their skills and work best for them.

Connection to Other State Initiatives

The DLP complements and supports the goals of three statewide initiatives: State Superintendent of Public Instruction Megan Degenfelder's strategic plan, Governor Gordon's Reimagining and Innovating Delivery of Education (RIDE) initiative and the State Board of Education's Profile of a Graduate initiative.

Governor Gordon's Reimagining and Innovating Delivery of Education (RIDE)
RIDE's aim is to lead Wyoming's education system into the future and to elevate it to a position of national leadership. RIDE includes several innovative ideas to accomplish the goals of the initiative: competency-based learning, expanded learning pathways, teacher preparation and retention, focus on early years, mental health support and parent engagement. The DLP reinforces RIDE by incorporating a theme focused on instruction and learning that includes recommendations for using technology to support student-centered approaches such as competency-based learning, personalized learning, work-based learning, project-based learning, and universal design for learning.

The DLP also contributes to teacher recruitment and retention by addressing teachers' professional learning and classroom resource needs. In addition, the DLP focuses on collaborations with families and the community—contributing to RIDE's focus on strengthening parent engagement and relationships between schools and communities.

State Board of Education's Profile of a Graduate

The Profile of a Graduate initiative identifies what it means to be a graduate by defining seven key competencies for students to learn, work, contribute, and thrive. The goal is for students to be effective communicators, critical thinkers/problem solvers, civically engaged, life ready, and employable—including having soft skills. The seven competencies are: master, apply, and transfer foundational knowledge and skills; think critically and creatively to solve complex problems; communicate effectively to various purposes, audiences, and mediums; identify and use credible sources of information to build knowledge and make decisions; demonstrate strong interpersonal and collaboration skills; cultivate curiosity, self-awareness, resilience, and a growth mindset; and practice effective work habits, including organization, time management, attention to detail, and follow through.

The DLP contributes to students' development of Profile of a Graduate competencies by addressing students' digital literacy and digital citizenship skills which include being able to think critically and creatively to solve problems, communicate effectively through multiple mediums, and being able to evaluate information for accuracy and credibility. By focusing on the human capacity and digital infrastructure elements of the DLP, districts can create an environment that supports teachers in learning the skills and having the technology they need to help students develop the digital skills for life, citizenship, and careers.

Superintendent Degenfelder's Strategic Plan

The Superintendent's strategic plan and goals for education reform in Wyoming is focused on preparing students for good jobs and to be good citizens. The plan's goals harmonize with both the RIDE and Profile of a Graduate initiatives, while offering additional innovative reform solutions. The six key initiative areas, with actionable goals in each include parental empowerment and eliminating political bias, preparing students for jobs through career and technical education, developing citizenship for students, reducing bureaucracy and creating efficiencies, valuing and supporting teachers, and improving outcomes through early literacy.

The DLP supports the Superintendent's strategic plan in preparing students for jobs through instruction and learning strategies based on real-world experiences that include work-based learning opportunities and the use of industry and workplace technology. The DLP emphasizes the development of digital citizenship skills so students can use technology in a balanced, safe, respectful, and responsible manner. The DLP inherently creates efficiencies by leveraging resources across the state, including collaboration among community members, K-12 through higher education educators, and parents. Strategies throughout the DLP aim to better support teachers and reduce burdens through professional development opportunities, adequacy of classroom resources, and administrative level support.

Development of the Digital Learning Plan

A representative Digital Learning Plan Advisory Panel was convened to guide development of the DLP and ensure it was designed to respond to requirements of state statute W.S. 21-2-202(a)(xx) and build on the 2017-2021 DLP. The panel included representatives from state agencies, the school board association, higher education, libraries, and K-12 schools. The panel's role was to ensure the plan meets statutory and policy requirements and allows every Wyoming student to have high-quality digital learning experiences.

The panel used information gathered through a literature scan of national and state-level approaches to digital learning and results from listening sessions conducted across the state, surveys of educators, parents, students, administrators, boards of education, and focus groups to set broad strategic intents for the DLP. Learn more about stakeholder input in Appendix A.

The panel also considered the progress made under the 2017-2021 plan as they developed recommendations for each strategic intent. For example, under the 2017-2021 plan, the WDE's state-level activities led to the development of K-12/16 Digital Learning and Computer Science Education standards and digital learning guidelines; provision of a menu of professional development offerings that helped educators apply digital learning practices; and provided important networking opportunities for educators to share digital learning best practices, implementation strategies, and successful outcomes through the establishment of the Wyoming Innovations in Learning Conference.

In addition, important progress was made in support of technology infrastructure. State agencies, schools, and partners worked to leverage all available resources and support to identify which schools needed support to successfully plan, procure, and manage their LAN/Wi-Fi networks and provide sufficient funding, staff, and expertise. The WDE provided guidelines and support for the mechanisms, safeguards, processes, and standards for protecting and maintaining student and educator data. Professional development was also provided to ensure district and vendor personnel understand student data privacy laws and any subsequent changes.

For their part, districts and schools expanded their understanding and use of digital learning, spurred by the COVID-19 pandemic and their recognition that digital learning opportunities are key to their students' future success. Districts developed engaging online courses, learned how to use a variety of digital resources, such as the WyomingPBS Learning Media site, and integrated the use of online tools to personalize learning for students. They explored the role of virtual reality and drones in education, examined how to incorporate lessons learned from remote learning during the pandemic into the in-person classroom, and investigated how robotics and coding can enhance literacy instruction.

The Advisory Panel acknowledged that not all districts and not all teachers engaged in these activities. They considered this condition as they developed recommendations for the strategic intents and as they reviewed the draft of the plan. The Advisory Panel also compared the plan to each of the three statewide initiatives to ensure alignment with and support of each.

Organization of the Plan

The DLP is organized around six themes that emerged from stakeholder input in an environment of support by state and local vision and leadership:

- Instruction and learning.
- Digital literacy and digital citizenship.
- Human capacity.
- Community, higher education, school, and family collaboration.
- Robust infrastructure and educational technology.
- Data privacy and security.

The inclusion of vision and leadership in the DLP underscores the importance of leaders at the state, district, and school levels in guiding the development and implementation of a vision for technology in student learning. The local vision captures the educational goals for digital learning that are important to students, parents, and community members and paints a picture of the role that technology will play in preparing students for their future as citizens and members of the workforce.

Leaders support digital learning by creating a culture that tolerates experimentation, encourages innovation, and fosters trust. They ensure teachers have the professional development, resources, and policy support they need to support digital learning. Leaders model the use of technology and form partnerships that help to sustain technology infrastructure and the professional learning all staff need to achieve the vision for digital learning (U.S. Department of Education, 2017).

The six themes recognize both the progress that was made under the 2017-2021 plan and the work that remains relevant and necessary for accomplishing the goal of equitable access to high-quality digital learning opportunities. The six themes and their interconnected nature are shown in Figure 1.

Figure 1. DLP Interwoven Themes

For each theme, the plan includes a definition and one to four strategic intents with associated strategies described at four specific levels (State, Postsecondary, District, School). The Instruction and Learning theme first presents the focus of the plan on student learning, but it does not intend to imply that this theme is more important than the others or that it should be addressed first. Each theme is equally important and all work together to support student-centered learning through the effective use of technology. Similarly, the order in which the strategic intents and strategies are presented does not imply relative importance or which to address first.

Strategic intents describe a vision for what can be accomplished by undertaking the strategies within each theme. The strategic intents are not measurable outcomes. Along with their strategies, the strategic intents serve as a road map that stakeholders can implement at their educational level. Further, the strategies are recommendations, not mandates. Each education level is free to decide which strategies to use and how to implement them.

The Six Themes and Implementation

Instruction and Learning

Student-centered learning provides students with more autonomy and responsibility for their learning, actively engaging them in the learning process. Instruction is focused on facilitating student-centered learning by using and managing appropriate educational technology and processes that support student-centered learning approaches, such as universal design for learning that includes students with disabilities and English language learners, competency-based learning, project-based learning, work-based learning, and personalized learning.

Strategic Intent 1

Educational technology is effectively used to enable and enhance student-centered learning for all.

State Strategies
- Promote and advocate the use of educational technology to support student-centered approaches to learning and assessment.
- Provide guidance, resources, and professional learning that supports teachers' effective use of educational technology for student-centered approaches to learning and assessment.
- Support coordination of school districts' ability to cultivate and share best practices that support student-centered approaches to learning and assessment.

Postsecondary Strategies
- Provide educational technology and training for all preservice teachers to support student-centered learning approaches.
- Ensure preservice teachers demonstrate the effective use of educational technology to support student-centered approaches.
- Provide professional learning opportunities for inservice educators to update skills and knowledge related to emerging educational technologies to support student-centered approaches.

District Strategies

- Provide resources and opportunities for professional learning to update skills and knowledge related to emerging educational technologies to support student-centered approaches.
- Provide appropriate educational technology for teachers and students to support student-centered approaches to learning and assessment.
- Provide opportunities for the sharing and demonstration of best practices for student-centered approaches to learning and assessment by teachers across the district.

School Strategies

- Provide resources and opportunities for professional learning to update skills and knowledge related to emerging educational technologies to support student-centered approaches.
- Educate students, families and community members on how educational technology supports student-centered learning and assessment.
- Provide feedback and support to teachers and students on their use of educational technologies for student-centered learning and assessment.
- Provide opportunities for the sharing and demonstration of best practices for student-centered learning and assessment by teachers throughout the school.

Spotlight - Instruction and Learning in Pinedale, Wyoming

Art can be a powerful tool that joins students of all abilities together to experience success when full inclusion is supported and incorporated. Katie Facklam, the 2024 Sublette County School District #1 Teacher of the Year, strives to utilize technology in innovative ways to ensure students of all abilities can create art. She does this by digitally recreating course resources, making them ADA accessible, and posting them to the Canvas learning management system. When working with non-verbal students, Facklam will set up an art area that offers the student choice options based on the Elements of Art and the Principles of Design. She will then use an iPad for art with communication technology to facilitate the student's choice selection by using symbols and simple words. Through trial and error in their individual classrooms, Wyoming educators can discover new methods to reach kids of all abilities and further enrich their students' education by offering opportunities for self-improvement and success in the art room.

Digital Literacy and Digital Citizenship

Digital literacy is the ability to find, evaluate, use, share, and create credible content using technologies and the internet. Digital citizenship involves using the internet and digital tools, such as social media and artificial intelligence, in a safe, respectful, and responsible manner.

Strategic Intent 1

Students and educators will practice and be able to apply effective digital literacy and digital citizenship skills.

State Strategies

- Create resources that support district implementation of a comprehensive scope and sequence curriculum for teaching digital literacy and digital citizenship to embed and use across all content areas.

- Provide resources that support students and educators in demonstrating competency in applying effective digital literacy and digital citizenship skills.
- Provide resources and opportunities for professional development to build capacity for teaching digital literacy and digital citizenship including new and emerging technologies.
- Provide guidance and resources to support students and staff to identify and use credible digital sources of information to build knowledge and make decisions.

Postsecondary Strategies

- Include information about which digital literacy and digital citizenship skills to teach at each grade level and all content areas in professional learning experiences for preservice and inservice educators.
- Provide opportunities for preservice and inservice educators to demonstrate competency in applying effective digital literacy and digital citizenship skills.
- Offer preservice and inservice professional learning experiences to support educators in teaching digital literacy and digital citizenship including new and emerging technologies.
- Offer preservice and inservice professional learning experiences to support educators to identify and use credible digital sources of information to build knowledge and make decisions.

District Strategies

- Adopt and support implementation of a comprehensive scope and sequence curriculum for teaching digital literacy and digital citizenship that specifies what to teach at each grade level or band and all content areas.
- Provide opportunities and time for students and educators to demonstrate competency in applying effective digital literacy and digital citizenship skills.
- Provide resources and opportunities for professional development to support schools' implementation of a comprehensive scope and sequence curriculum for teaching digital literacy and digital citizenship including new and emerging technologies.
- Provide opportunities and resources to support students and staff to identify and use credible digital sources of information to build knowledge and make decisions.

School Strategies

- Implement a comprehensive scope and sequence curriculum for teaching digital literacy and digital citizenship that specifies what to teach at each grade level or band and all content areas.
- Provide opportunities and time for students and educators to demonstrate competency in applying effective digital literacy and digital citizenship skills.
- Provide opportunities and time for professional development to support teachers' implementation of a comprehensive scope and sequence curriculum for teaching digital literacy and digital citizenship including new and emerging technologies.
- Provide opportunities to support students and staff to identify and use credible digital sources of information to build knowledge and make decisions.

Strategic Intent 2

Students and educators will use technology in a way that promotes optimal digital wellness.

State Strategies

- Provide guidance and resources to support students and staff to use the internet and digital tools in a balanced, safe, respectful, and responsible manner.

Postsecondary Strategies

- Offer preservice and inservice professional learning experiences to support educators to use the internet and digital tools in a balanced, safe, respectful, and responsible manner.

District Strategies

- Provide opportunities and resources to support students and staff to use the internet and digital tools in a balanced, safe, respectful, and responsible manner.

School Strategies

- Provide opportunities to support students and staff to use the internet and digital tools in a balanced, safe, respectful, and responsible manner.

Spotlight - Digital Literacy and Digital Citizenship across Wyoming

The Wyoming Digital Learning Guidelines were implemented by the WDE during the 2017-2021 DLP to support the use of educational technology in the classroom. This initiative was a response to educators' requests from across the state asking for guidance on knowing what technology to use at each grade band. The Guidelines are based on the International Society for Technology in Education (ISTE) Standards for Students and include classroom application ideas presented in a scope and sequence format with examples across grade level bands that can be used in any content area.

To support educators in using the Guidelines in the classroom, an online course was developed to provide an in-depth look at each of the ISTE Standards with example activities for educators to complete. The course can be taken by inservice or preservice teachers and is available for Wyoming Professional Teaching Standards Board renewal credit. Instructors at two Wyoming community colleges have incorporated the Guidelines course into their instructional technology curriculum for preservice students. The Guidelines and accompanying online course will continue to be available across the state during the 2023–28 DLP to aid teachers and students in implementing digital literacy skills including digital citizenship.

Human Capacity

Human capacity refers to the processes that support professional learning for educational staff to access, operate, and manipulate existing, new, and emerging technologies that facilitate academic achievement and student-centered learning.

Strategic Intent 1

Provide personalized professional learning choices and resources that build educators' capacity to use digital learning, including the Universal Design for Learning (UDL) principle, to improve student outcomes.

State Strategies

- Provide ongoing professional learning opportunities for educators to effectively integrate and balance the use of technology in instruction.
- Provide ongoing professional learning opportunities for educators to effectively use technology to personalize student learning.

Postsecondary Strategies

- Provide ongoing professional learning opportunities for educators to increase their ability to critically examine the efficacy and applicability of new and emerging technologies and adopt those that are appropriate for improving student learning.
- Provide resources and opportunities for professional learning to build capacity in the design and implementation of UDL.

District Strategies

- Provide adequate time and support for educators to build and practice their skills to integrate and balance the use of technology in instruction.
- Provide adequate time and support for educators to participate in professional learning experiences to effectively use technology to personalize student learning.
- Provide adequate time and support for educators to build and practice their ability to critically examine the efficacy and applicability of new and emerging technologies and adopt those that are appropriate for improving student learning.
- Provide adequate time and support for educators to build and practice their ability to design and implement UDL.

School Strategies

- Provide adequate time and support for educators to build and practice their skills to integrate and balance the use of technology in instruction.
- Provide adequate time and support for educators to participate in professional learning experiences to effectively use technology to personalize student learning.
- Provide adequate time and support for educators to build and practice their ability to critically examine the efficacy and applicability of new and emerging technologies and adopt those that are appropriate for improving student learning.
- Ensure UDL design principles are used in courses and digital tools provided to students.

Strategic Intent 2

Ensure educational staff who continue their professional growth by demonstrating innovative instructional practices utilizing digital learning are recognized and celebrated.

State Strategies

- Provide an awards program that recognizes educators who are demonstrating effective and innovative digital learning practices.
- Create opportunities for licensure, certifications, and micro-credentials for digital learning.

Postsecondary Strategies

- Provide an awards program that recognizes educators who are demonstrating effective and innovative digital learning practices.
- Create opportunities for preservice and inservice educators to obtain licensure, certifications, badges, and micro-credentials for digital learning.

District Strategies

- Provide recognition for educators who continue their professional growth by demonstrating innovative instructional practices utilizing digital learning.
- Provide incentives and/or support for educators to receive licensure, certifications, and micro-credentials for digital learning.

School Strategies

- Provide recognition for educators who continue their professional growth by demonstrating innovative instructional practices utilizing digital learning.
- Provide time and support for educators to receive licensure, certifications, and micro-credentials for digital learning.

Strategic Intent 3

Establish a network of educators and organizations that focuses on sharing digital learning best practices, implementation strategies, and successful outcomes.

State Strategies

- Provide resources that support a network for educators and organizations to share digital learning best practices, implementation strategies, and successful outcomes.
- Promote use of a statewide resource bank for educators to contribute examples of effective use of digital learning.

Postsecondary Strategies

- Provide resources that support a network for educators and organizations to share digital learning best practices, implementation strategies, and successful outcomes.
- Encourage preservice and inservice educators to contribute examples of effective use of digital learning to a statewide resource bank.

District Strategies

- Create a districtwide professional learning network for educators to share digital learning best practices, implementation strategies, and successful outcomes.
- Encourage and support educators to contribute to and use examples of effective use of digital learning from the statewide resource bank.

School Strategies

- Incorporate digital learning discussions into professional learning communities to share digital learning best practices, implementation strategies, and successful outcomes.
- Encourage and support educators to contribute to and use examples of effective use of digital learning from the statewide resource bank.

Strategic Intent 4

Ensure technology and instructional staff are available to effectively support the use of digital learning for all staff and students.

State Strategies

- Provide resources to support district staff on the use of technology and digital learning.
- Provide guidance on best practices and resources to enhance the ability of district staff to provide technology support in and minimize disruptions to the learning environment.

Postsecondary Strategies

- Provide resources to support coaching for educators on technology equipment and digital learning tools.
- Provide training for technology support staff that enables them to work effectively with educators and students.

District Strategies

- Provide coaching on technology equipment and digital learning tools for educators.

- Provide timely technology support to schools to minimize disruptions to the learning environment.

School Strategies

- Provide time and support for coaching on technology equipment and digital learning tools for educators.
- Provide timely technology support to educators and students to minimize disruptions to the learning environment.

Spotlight - Human Capacity in Ethete, Wyoming

Fremont County School District #14 has been working to build the human capacity of staff, students, and parents. Through their website, they provide resources to aid students and parents on the use of district technology. These resources provide videos so parents and caregivers can assist students when working at home. The training for staff includes a course on how to use the Canvas learning management system, resources on high-quality lessons that implement technology, and how to utilize technology in the classroom. Staff can also utilize a resources page on the Fremont County School District #14 website that is tailored to their needs. Fremont County School DIstrict #14 has a systematic approach to their technology usage and training. They have effectively utilized and implemented their technology plan to ensure that human capacity needs are met as new technology is implemented.

Spotlight - Human Capacity Across Wyoming

Micro-credentials are skill specific, job-embedded, competency based, research backed, on-demand training that are earned through demonstration of in demand skills. The computer science micro-credentials are a way to build capacity and demonstrate knowledge of the computer science standards. There are seventeen micro-credential to earn at both the elementary and secondary levels. The seventeen micro-credentials are organized into six stacks. The competencies of the microcredentials are based on the 2020 Computer Science Wyoming Content & Performance Standards. Micro-credentials are earned through the Midas Platform.

Community, Higher Education, School, and Family Collaboration

Collaboration is working together to create or produce something. Educators at all levels collaborate with colleagues, families, higher education, and the community to support equitable access to technology and digital learning experiences that prepare students for future career and vocational readiness. Collaboration works best when it occurs within and between all stakeholder groups.

Strategic Intent 1

Partnerships between families, K-12 systems, postsecondary institutions, and libraries enable expanded opportunities to learn from each other and leverage resources together.

State Strategies

- WDE collaborates with K-12 and postsecondary educators to create and deliver professional development experiences with instructional technology.

- Create statewide resources for parents/caregivers to engage with digital tools and technology to foster student learning.
- Collaborate with K-12 and postsecondary educators to examine the effectiveness of digital learning practices.
- Collaborate with K-12, postsecondary, and libraries to foster opportunities for educators to observe and learn from others who are effectively using instructional technology.
- Advocate and identify ways to collaborate with agencies and across districts for data security and cybersecurity-related purchasing and funding sources.

Postsecondary Strategies

- Postsecondary collaborates with WDE and K-12 educators to create and deliver professional development experiences with instructional technology.
- Create supports to assist preservice and inservice educators to engage with parents/caregivers to share digital tools and technologies that foster student learning.
- Collaborate with WDE and K-12 educators to conduct research on the effectiveness of digital learning practices.
- Collaborate with WDE, K-12, and libraries to foster opportunities for educators to observe and learn from others who are effectively using instructional technology.
- Advocate and identify ways for agencies and school districts to collaborate on data security-related and cybersecurity-related purchasing and funding sources.

District Strategies

- District provides opportunities, time, and resources for staff collaboration to create and deliver professional development experiences that utilize instructional technology.
- Create districtwide opportunities that allow parents/caregivers to engage with digital tools and technology that foster student learning.
- Collaborate with WDE and postsecondary educators to evaluate the effectiveness of digital learning practices.
- Provide opportunities for districtwide coordination of teachers to observe and learn from other teachers who are effectively using instructional technology.
- Advocate and identify ways for schools and districts across the state to collaborate on data security-related and cybersecurity-related purchasing and funding sources.

School Strategies

- Schools provide opportunities, time, and resources for staff to collaborate on creating and/or delivering professional development experiences with instructional technology.
- Create schoolwide opportunities that allow parents/caregivers to engage with digital tools and technology that foster student learning.
- Provide opportunities and time for staff to participate in collaborative efforts to evaluate the effectiveness of digital learning practices.
- Provide opportunities for schoolwide coordination for teachers to observe and learn from other teachers who are effectively using instructional technology.
- Advocate and identify ways for agencies and schools across the state to collaborate on data security-related and cybersecurity-related purchasing and funding sources.

Strategic Intent 2

Collaboration provides students with access to opportunities that prepare them to learn, work, contribute, and thrive.

State Strategies
- Collaborate with industry partners and state/federal agencies to infuse their technology into learning experiences in order to better prepare students for work-based learning opportunities and careers.
- Collaborate with K-12 and postsecondary to provide resources that facilitate the creation of student digital learning experiences which prepare them for college.

Postsecondary Strategies
- Collaborate with industry partners and state/federal agencies to infuse their technology into learning experiences for preservice and inservice educators.
- Collaborate with K-12 to articulate expectations for digital learning to assist students in being successful in college.

District Strategies
- Collaborate with industry partners and state/federal agencies to infuse their technology as support for curriculum to better prepare students for work-based learning opportunities and careers.
- Encourage collaboration between school districts and postsecondary institutions to align expectations for digital learning that lead to postsecondary success.

School Strategies
- Collaborate with industry partners and state/federal agencies to infuse their technology as support for curriculum to better prepare students for work-based learning opportunities and careers.
- Assist students in being successful in college by providing learning experiences that align with postsecondary expectations for digital learning

Spotlight - Community, Higher Education, School, and Family Collaboration in Casper, Wyoming

In collaboration with the University of Wyoming College of Engineering and Applied Science and the Wyoming Department of Workforce Services Vocational Rehabilitation Division, the Natrona County Library received a grant to expand its makerspace "Creation Station" to foster creation, innovation, and exploration. The Creation Station, an Innovation Wyrkshop affiliate, is available for community members to gather to work on projects while sharing equipment and knowledge. The Creation Station offers online, in-person, or one-on-one training to use the equipment such as sewing machines, leatherworking tools, 3D printers, Cricut, and embroidery machines. Use of the equipment and materials are free due to support from the Natrona County Library Foundation. In addition, the space enhances and expands the Natrona County Library's existing programs for all ages with hands-on STEAM-related workshops, demonstrations, and projects. Through the Innovation Wyrkshop Network, other communities such as Pinedale, Cheyenne, Laramie, and Rock Springs have been able to bring makerspaces to their communities. The Natrona County Library was also able to hire two employees through the Vocational Rehabilitation Division to help with the makerspace and have since retained the employees as Library staff. The Natrona County Library is a prime example of a local organization collaborating with a postsecondary institution to support equitable access to technology and digital learning experiences that prepare students for future career and vocational readiness.
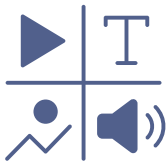
Robust Infrastructure and Education Technology

Digital infrastructure includes affordable and equitable access to high-speed internet, educational software/hardware, and devices to support student learning at school and at home.

Strategic Intent 1

Every school has the capacity to successfully plan, procure, and manage their LAN/Wi-Fi Networks, including sufficient funding, staff, and expertise.

State Strategies

- Provide and advocate for equitable access to high-speed internet to, in, and between schools.
- Provide guidance, resources, and best practices for technology replacement of district hardware and software.
- Provide guidance and best practices for technical staff to support a one-to-one device program and infrastructure.

Postsecondary Strategies

- Advocate for equitable access to high-speed internet to, in, and between schools.
- Collaborate with state and district partners on guidance, resources, and best practices for technology replacement of district hardware and software.
- Provide training and certifications for technical staff to enable them to support one-to-one device programs and infrastructure.

District Strategies

- Provide and advocate for equitable access to high-speed internet to, in, and between schools.
- Plan for and implement best practices for technology replacement for hardware and software.
- Ensure there are sufficient certified technical staff available to support a one-to-one device program and infrastructure.

School Strategies

- Advocate for and provide feedback on access to high-speed internet within the school.
- Support implementation of best practices for technology replacement for hardware and software.
- Provide feedback on the support provided by the technical staff on one-to-one device program and infrastructure.

Strategic Intent 2

Support a technology infrastructure that provides opportunities for equitable education for all children attending Wyoming's K-12 public schools.

State Strategies

- Communicate with districts about programs providing affordable high-speed internet access to homes.
- Advocate for public and postsecondary libraries to provide access to high-speed internet for students to utilize while in the library as well as hotspot check-out for use at home.

Postsecondary Strategies

- Advocate for affordable access to high-speed internet in homes.
- Advocate for postsecondary libraries to provide access to high-speed internet for students to utilize while in the library as well as hotspot check-out for use at home.

District Strategies

- Communicate with families about programs providing affordable high-speed internet access to homes.
- Advocate for public and postsecondary libraries to provide access to high-speed internet for students to utilize while in the library as well as hotspot check-out for use at home.

School Strategies

- Communicate with families around programs providing affordable high-speed internet access to homes.
- Advocate for public and postsecondary libraries to provide access to high-speed internet for students to utilize while in the library as well as hotspot check-out for use at home.

Spotlight - Robust Infrastructure and Education Technology across Wyoming

The Consortium for School Networking (CoSN), the professional organization for school system technology leaders, offers the Certified Education Technology Leader (CETL) training certification program. The CETL program currently stands as the sole accredited certification tailored specifically for education technology leaders. CETL serves as a comprehensive bridge that combines technical expertise, educational insights, leadership vision, and the effective management of technology resources to facilitate the seamless integration of technology across the curriculum, ultimately advancing student outcomes.

Obtaining CETL provides district staff with access to a vibrant community of education technology leaders. Technology directors and staff such as Chris Rule, the Technology Director from Sublette County School District #1, connect with like-minded professionals, share insights, collaborate on projects, and learn from each other's experiences through CETL. This networking fosters professional growth and enables Wyoming educators to tap into a supportive community of experts. The network allows Rule to stay up-to-date with the latest trends, innovations, and best practices in education technology. This knowledge empowers Rule to guide his school district in adopting and implementing cutting-edge technologies and instructional strategies, further enhancing teaching, learning experiences, and ultimately student outcomes.

Data Privacy and Security

Attention to data privacy and security are essential for ensuring safe access and use of technology. Data privacy refers to how personal data is gathered, shared, and used. Data security involves measures taken to protect digital data from unauthorized disclosure and access.

Strategic Intent 1

Ensure student and staff information and data are secure and data privacy is maintained.

State Strategies

- Create recommendations and promote industry standards and best practices for information security and data privacy.

- Support coordination of school districts after completing a Security Gap Analysis Procedure (SGAP).
- Provide guidance to and advocate for districts and schools to be properly equipped with the administrative, physical, and technical resources to ensure student data privacy is being maintained.
- Provide guidance and advocate for all software resources to be vetted and applications to be trusted for student data privacy.

Postsecondary Strategies
- Provide opportunities for preservice and inservice educators and administrators to understand how the use of digital tools impacts information security and data privacy.
- Ensure technical staff in districts have the skills needed to complete a SGAP.
- Advocate for districts and schools to be properly equipped with the administrative, physical, and technical resources to ensure student data privacy is being maintained.
- Advocate for software resources to be vetted and applications can be trusted for student data privacy.

District Strategies
- Adopt, adapt, and implement industry standards and best practices for information security and data privacy.
- Complete the SGAP.
- Ensure all district schools are properly equipped with the administrative, physical, and technical resources to ensure student data privacy is being maintained.
- Provide guidance and ensure all software resources are vetted and applications can be trusted for student data privacy.

School Strategies
- Implement industry standards and best practices for information security and data privacy.
- Support the completion of a SGAP.
- Ensure the school is properly equipped with the administrative, physical, and technical resources to ensure student data privacy is being maintained.
- Ensure all software resources are vetted and applications can be trusted for student data privacy.

Strategic Intent 2

Ensure students, staff, families/caregivers, and the community understand how to secure information and maintain data privacy.

State Strategies
- Provide guidelines and advocate for data privacy and security with an annual refresh for continuous improvement.
- Publish guidelines to educate families/caregivers and community members on data privacy.
- Promote and advocate for cybersecurity awareness and training for district staff and students.

Postsecondary Strategies
- Ensure preservice and inservice teachers have knowledge and awareness of data privacy and security.
- Advocate for educating families/caregivers and community members on data privacy.
- Provide cybersecurity awareness training for all preservice and inservice teachers.

District Strategies

- Implement policies, procedures, best practices, and training for staff to develop knowledge and awareness of data privacy and security.
- Support schools to provide guidance and educate families/caregivers and community members on data privacy.
- Provide cybersecurity awareness training to all district staff and students.

School Strategies
- Implement standards for information security and data privacy.
- Educate families and community members on data privacy.
- Ensure all school staff and students complete cybersecurity awareness training.

Spotlight - Data Privacy and Security in Cheyenne, Wyoming

Kyle McKinney, the Technology Director from Laramie County School District #1, shared the district's approach to data security in regard to applications and websites. Throughout the process, the technology department seeks approval for the applications from the instruction department to ensure they also meet instructional requirements.The district uses Education Framework to check the privacy policies for applications and websites that teachers request. This process returns one of two results, along with a 0-5 star rating: 1) the school district can grant access to the resource on behalf of the parents; 2) the district cannot grant access and must obtain verifiable parental permission for the student to use the application.

To obtain permission from parents, there are two processes in place: 1) online registration (OLR) where parents consent to allow the district to grant access to applications and websites on behalf of the parents. Some of the schools provide a list of applications and websites used for parents for review; 2) permission slip, if a teacher requests a resource during the year that requires verifiable parental permission. It is up to the school to get the slips home and returned and to maintain those records. Additionally, the district is starting to require the vendors of apps that are used district-wide or contain student personally identifiable information to complete a data sharing agreement. Laramie County School District #1 uses the Standard Data Privacy Agreement (or NDPA) from the Student Data Privacy Consortium. There is often some negotiating involved on the exact language in the agreement, but Laramie County School District #1 has not run into a vendor yet who will not sign it and comply.

Conclusion

The 2023-2028 DLP is designed to promote, support, and guide the various levels of education, in partnership with businesses and the community, in providing digital learning opportunities for all students so that they are prepared for the demands and opportunities that technology will present as they complete their education and move into adulthood.

The plan presents an array of strategies for reaching the goal of equitable access to digital learning opportunities for all students. It is not possible to address all of the strategies in one year. Instead, each education level can review the strategies and decide on a strategic plan over the five-year period.

One important aspect of the plan is a willingness to learn, whether that learning is through structured courses, workshops, conferences, or informal networking with others to share successes and challenges with digital learning. Over the next five years, there will be much to learn as Wyoming focuses on student-centered learning. Digital learning plays a key role in personalizing learning, providing students voice and choice, and enabling students to take ownership and accountability for their learning.

The goal of equitable access to digital learning opportunities won't be accomplished by any one level of the education system working alone. The 2023-2028 DLP provides guidance for how collaboration among schools, districts, higher education, the community, and state agencies can support achievement of the goal. As stated in the 2017-2021 plan, "it will take everyone partnering and working side-by-side" to accomplish the overarching goal and strategic intents set forth in this plan."

Over the next five years, staff at the WDE will carry out the activities defined for the state level of the plan. WDE staff will provide guidance for districts that support their efforts to provide equitable access to digital learning opportunities. WDE staff will meet quarterly with the Digital Learning Plan Advisory Panel to review progress and continue to work on the implementation of state strategies. For their part, panel members will support implementation of any strategies related to their position in the education system or community and serve as advocates for the plan.

Districts, schools, and higher education institutions are encouraged to review the plan, determine which of the strategies they have already addressed and which they might address over the next five years. They also might consider ways to track and share their progress to further their own and others' learning.

Glossary

Artificial Intelligence
Leverages computers and machines to mimic the problem-solving and decision-making capabilities of the human mind. (IBM, n.d.) Generative artificial intelligence (AI) is a type of AI system capable of generating text, images, code, or other media such as audio and video in response to data input. Generative AI systems pick up the patterns of structure in the data provided and then generate new media that closely resembles the original.

Competency-Based Learning
Refers to systems of instruction, assessment, grading, and academic reporting that are based on students demonstrating that they have learned the knowledge and skills they are expected to learn as they progress through their education. Competency-based learning is generally seen as an alternative to more traditional educational approaches in which students may or may not acquire proficiency in a given course or academic subject before they earn course credit, get promoted to the next grade level, or graduate. (The Glossary of Education Reform, 2014)

Digital Citizenship
Signifies the attributes needed to engage with technology for the betterment of society as a whole. Includes responsible legal and ethical use of technology, online etiquette or netiquette, appropriate behavior for self and with others, digital identity, and more. (California State Board of Education, 2021)

Digital Literacy
Includes the ability to find, evaluate, use, share, analyze, create, and communicate using digital technologies in a safe and secure way. More broadly, it can also stand for the ability to use digital technologies to learn and work in society. (California State Board of Education, 2021)

Digital Wellness
Also referred to as digital wellbeing or health refers to purposeful and balanced use of technology to promote healthy, productive engagement and satisfaction in personal, learning, or work environments.

Inservice Teacher
A person who has completed initial teacher preparation, is certified to teach, and is currently teaching.

Personalized Learning
Refers to instruction in which the pace of learning and the instructional approach are optimized for the needs of each learner. Learning objectives, instructional approaches, and instructional content (and its sequencing) may all vary based on learner needs. In addition, learning activities are meaningful and relevant to learners, driven by their interests, and often self-initiated. (U.S. Department of Education, 2017)

Preservice Teacher
A person who is enrolled in an education program that prepares participants to gain the knowledge, skills, and attitudes needed for the teaching profession. Preservice indicates that the person has not yet finished a preparation program and has not been certified to teach. Student teachers are preservice teachers who are gaining practical experience in a classroom as part of their teacher preparation program.

Project-Based Learning
Refers to learning that takes place in the context of authentic problems, continues over time, and brings in knowledge from many subjects. Project-based learning, if properly implemented and supported, helps students develop 21st century skills including creativity, collaboration, and leadership and engages them in complex, real-world challenges that help them meet expectations for critical thinking. (U.S. Department of Education, 2017)

Social Media
Refers to forms of electronic communication, such as websites for social networking and microblogging, through which users create online communities to share information, ideas, personal messages, and other content. (Merriam-Webster Dictionary, n.d.)

Strategic Intent
A description of what is intended as a result of implementing strategies, or a vision of what can be accomplished through a set of strategies.

Student-Centered Learning
An approach to instruction that actively engages students in learning and provides them with choice about how they acquire and demonstrate their learning. In addition, it fosters student autonomy, responsibility, and accountability for learning and includes mutual respect between teachers and students.

Universal Design for Learning (UDL)
An approach to teaching that makes learning experiences accessible to all students, including those with special needs. UDL is guided by three principles:
- Provide multiple means of representation so that students can approach information in more than one way.
- Provide multiple means of expression so that all students can demonstrate and express what they know.
- Provide multiple means of engagement to stimulate interest in and motivation for learning. (U.S. Department of Education, 2017)

Work-Based Learning
An instructional strategy that emphasizes the connection of classroom learning to the work setting including the academic, technical, and employability skills needed to be prepared for the workplace and career opportunities.

References

California State Board of Education. (2021). California digital learning integration and standards guidance.
https://www.cde.ca.gov/ci/cr/dl/documents/dlintegrationstdsguide.pdf

Every Student Succeeds Act of 2015, Pub. L. No. 114-95 § 114, Stat. 1177 (2015-2016).
https://nces.ed.gov/pubs2017/2017098/index.asp

Gronneberg, J., & Johnston, S. (2015, April 6). 7 things you should know about universal design for learning [Brief]. Educause Learning Initiative.
http://www.educause.edu/library/resources/7-things-you-should-know-about-universal-design-learning.

IBM. (n.d.). What is artificial intelligence (AI)?
https://www.ibm.com/topics/artificial-intelligence#toc-types-of-a-q56lfpGa

Merriam-Webster. (n.d.). Social media. In Merriam-Webster.com dictionary.
https://www.merriam-webster.com/dictionary/social%20media

The Glossary of Education Reform. (2014). Competency-based learning.
https://www.edglossary.org/competency-based-learning/

U.S. Department of Education. (2017). Reimagining the role of technology in education: 2017 National technology education plan update.
https://tech.ed.gov/files/2017/01/NETP17.pdf

Appendix A: Stakeholder Input

Data Collection Methods

To gather stakeholder input on the development of the 2023-2028 DLP, WDE obtained information via a listening tour, survey administration, and focus groups.

Listening Tour

The WDE conducted seven in-person and five virtual listening tour sessions between October and November 2022 to provide stakeholders with the opportunity to share their input on the previous DLP and to identify themes that should inform the 2023-2028 DLP. The seven in-person sessions were held in multiple cities across the state to gain input from individuals representing small and large school districts. Sessions were held in Riverton, Jackson, Cody, Sundance, Rock Springs, Casper, and Lusk. A final in-person session was scheduled to be conducted in Cheyenne in November 2022, but was canceled due to inclement weather.

Surveys

The WDE administered surveys between January and February 2023 to school district board of trustee members, district staff, paraprofessionals, parents, school leaders, students, and teachers. Surveys were designed to:

- Identify additional digital learning themes not shared during the listening tour sessions.
- Refine and delve deeper into each theme.
- Identify respondents' prioritization of the themes.
- Identify strategies to address themes in the 2023-2028 DLP.

The surveys collected from board of trustees, district staff, paraprofessionals, school leaders, and teachers specifically asked recipients to rate the level of perceived importance to address themes related to digital learning in their schools and/or districts. To identify strategies, these groups were prompted to rate their preference for strategies to be implemented in their school and/or district to address specific themes. Surveys administered to parents and students presented recipients with questions related to digital connectivity, current digital learning opportunities, and desired digital learning opportunities. Student and parent surveys were specifically designed to obtain a greater understanding of the barriers to connecting to the internet and what types of digital tools students need to be successful. Table 3 displays the number of responses and response rate for all seven survey groups.

Focus Groups

WDE conducted three virtual focus group sessions during April 2023 to obtain additional feedback on the strategic intents of each theme identified for the 2023-2028 DLP. Focus groups were organized by survey group with sessions held with the following pairings:

- Parents and board of trustees.
- Teachers and paraprofessionals.
- District staff and school leaders.

Table 1 displays the themes discussed in each focus group pairing, as themes were specifically isolated for each pairing to be most applicable to their individual roles in the education system.

Table 1. Focus Group Themes

Focus Group Pairing	Theme Presented
Teachers and Paraprofessionals	Human Capacity Digital Literacy and Digital Citizenship Community, Higher Education, School, and Family Collaboration
Parents and Board Members	Digital Literacy & Digital Citizenship Robust Infrastructure and Education Technology Community, Higher Education, School, and Family Collaboration
School Leaders and District Staff	Human Capacity Robust Infrastructure and Education Technology Data Privacy and Security

Findings

Listening Tour

A total of 63 attendees participated in the 12 listening tour sessions and represented the following roles in their communities:

- District employee
- School employee
- Higher education faculty member
- Educational consultant
- State employee
- Virtual education school employee
- Virtual education district employee
- Parent

Across the 12 sessions, the following five themes emerged from participant comments that were identified to further analyze in the survey portion of data collection:

1. Human Capacity
2. Digital Literacy & Digital Citizenship
3. Robust Infrastructure and Education Technology
4. Digital Privacy & Security
5. Community, Higher Education, School, and Family Collaboration

Table 2 presents a sample of participant quotes collected during listening session events to highlight stakeholder interest in digital learning and how their input shaped the development of the DLP themes.

Table 2. Listening Session Stakeholder Input

Theme	Quote
Human Capacity	"I think the reliance on technology is probably ever increasing, and with that comes some challenges because not only are teachers responsible for teaching content, they're also responsible for teaching some digital skills that may push them outside their comfort zone."
	"We live in an increasingly digital world. Students need to feel both comfortable in that world and be able to adapt to the average changing technology."
Digital Literacy & Digital Citizenship	"We need to teach students to be creators as well as information gatherers. Plus, they need to know their digital footprint, what that means, as well as how to protect the content they create."
	"I think taking the tools that are available and knowing how to utilize them. So again, being able to know when a YouTube video is appropriate or not, as a means to provide educational moment for that kid to use it, because there is so much out there, and knowing when it fits with what they're trying to teach in that classroom or the kid's trying to use."
Robust Infrastructure and Education Technology	"Five years ago, we didn't have 1:1 devices. There wasn't an expectation that, during the day, somebody could walk into my classroom and see kids on devices and see that as their best way of learning. That's changed a great deal."
	"Five years ago, we did not have the infrastructure that we currently have, whether it be the quantity and quality of bandwidth or just the fiber and copper and wireless connections that are available to our students at this point in time."
	"There really is a difference between kids that have access at home and kids who don't. Students that don't have the internet are at a disservice there. And even though I try to make up with paper, it's not the same, they don't perceive this as the same, they perceive it as a punishment."
Digital Privacy & Security	"Cybersecurity is huge. Protecting their online identity and their information and their personal safety because traffickers are targeting young people all over. And that includes Wyoming. So cybersecurity issues, identity theft, how to collaborate digitally with more companies going to remote learning."
	"Another piece of that that we haven't even touched on is the whole cybersecurity piece. I mean, for kids to be aware of that, teachers to understand that because schools now, we don't like it, but we're in the mix with these cybersecurity attacks. And so knowing like, "Hey, this piece of software is not very secure, so we wouldn't recommend using it."

Theme	Quote
Community, Higher Education, School, and Family Collaboration	"At the university level, they need to spend more quality time on ensuring that our teachers or brand-new teachers really understand, not only how to use the digital tools, but where to use them, and where not to use them."
	"I think it would be great to see some sort of "technology night" where, maybe the students lead their parents into what their lives look like for a class period where they're using some sort of technology, so that us, parents, can be educated on what it is that the kids do day-to-day with the technology pieces."
	"Then we have the ability to put those tools in the classroom. That's the next step. So it has to be not just them in, but it has to be a partnership. We need every major organization to come in and say, "This is how we use our technology. Can we implement that technology in the school and give these kids an opportunity?" I have kids right now that are learning how to use technology that's being used in industry, and every one of those industry leaders said, "You need to continue to keep learning," because their technology is changing faster than what it's even changing in the schools."

Surveys

Survey results evaluating the perceived importance of topics and strategies related to digital learning were used to refine the final development of the DLP. Table 3 displays the number of responses and response rate for all seven survey groups.

Table 3. Survey Responses and Response Rate.

Group	# of Responses	Responses Rate
Board of trustees	31	9.2%
District staff	143	46.6%
Paraprofessionals	86	11.3%
Parents	861	-
School leaders	101	35%
Students	2,096	4.3%
Teachers	848	9.4%

Focus Groups

A total of 13 individuals participated in the three focus group sessions to provide feedback on the strategic intents of each DLP theme. The teacher and paraprofessionals included 9 participants, while both the parents and board members and school leaders and district staff focus groups each included two participants.

Appendix B: Strategies by Level

State Level Strategies
Instruction and Learning

Strategic Intent 1: Educational technology is effectively used to enable and enhance student-centered learning for all.

- Promote and advocate the use of educational technology to support student-centered approaches to learning and assessment.
- Provide guidance, resources, and professional learning that supports teachers' effective use of educational technology for student-centered approaches to learning and assessment.
- Support coordination of school districts' ability to cultivate and share best practices that support student-centered approaches to learning and assessment.

Digital Literacy and Digital Citizenship

Strategic Intent 1: Students and educators will practice and be able to apply effective digital literacy and digital citizenship skills.

- Create resources that support district implementation of a comprehensive scope and sequence curriculum for teaching digital literacy and digital citizenship to embed and use across all content areas.
- Provide resources that support students and educators in demonstrating competency in applying effective digital literacy and digital citizenship skills.
- Provide resources and opportunities for professional development to build capacity for teaching digital literacy and digital citizenship including new and emerging technologies.
- Provide guidance and resources to support students and staff to identify and use credible digital sources of information to build knowledge and make decisions.

Strategic Intent 2: Students and educators will use technology in a way that promotes optimal digital wellness.

- Provide guidance and resources to support students and staff to use the internet and digital tools in a balanced, safe, respectful, and responsible manner.

Human Capacity

Strategic Intent 1: Personalized professional learning choices and resources that build educators' capacity to use digital learning, including Universal Design for Learning (UDL) principles, to improve student outcomes are available.

- Provide ongoing professional learning opportunities for educators to effectively integrate and balance the use of technology in instruction.
- Provide ongoing professional learning opportunities for educators to effectively use technology to personalize student learning.

Strategic Intent 2: Recognize and celebrate educational staff who are continuing their professional growth by demonstrating innovative instructional practices utilizing digital learning.

- Provide an awards program that recognizes educators who are demonstrating effective and innovative digital learning practices.
- Create opportunities for certifications, certificates, and micro-credentials for digital learning.

Strategic Intent 3: A network of educators and organizations is created that focuses on sharing digital learning best practices, implementation strategies, and successful outcomes.

- Provide resources that support a network for educators and organizations to share digital learning best practices, implementation strategies, and successful outcomes.
- Promote use of a statewide resource bank for educators to contribute examples of effective use of digital learning

Strategic Intent 4: Technology and instructional staff are available to effectively support the use of digital learning for all staff and students.

- Provide resources to support district staff on the use of technology and digital learning.
- Provide guidance on best practices and resources to enhance the ability of district staff to provide technology support in and minimize disruptions to the learning environment.

Community, Higher Education, School, and Family Collaboration

Strategic Intent 1: Partnerships between families, K-12 systems, postsecondary institutions, and libraries enable expanded opportunities to learn from each other and leverage resources together.

- WDE collaborates with K-12 and postsecondary educators to create and deliver professional development experiences with instructional technology.
- Create statewide resources for parents/caregivers to engage with digital tools and technology to foster student learning.
- Collaborate with K-12 and postsecondary educators to examine the effectiveness of digital learning practices.
- Collaborate with K-12, postsecondary, and libraries to foster opportunities for educators to observe and learn from others who are effectively using instructional technology.
- Advocate and identify ways to collaborate with agencies and across districts for data security and cybersecurity-related purchasing and funding sources.

Strategic Intent 2: Collaboration provides students with access to opportunities that prepare them to learn, work, contribute, and thrive.

- Collaborate with industry partners and state/federal agencies to infuse their technology into learning experiences to better prepare students for work-based learning opportunities and careers.
- Collaborate with K-12 and postsecondary to provide resources that facilitate the creation of student digital learning experiences preparing them for college.

Robust Infrastructure and Education Technology

Strategic Intent 1: Every school has the capacity to successfully plan, procure, and manage their LAN/Wi-Fi Networks, including sufficient funding, staff, and expertise.

- Provide and advocate for equitable access to high-speed internet to, in, and between schools.
- Provide guidance, resources, and best practices for technology replacement of district hardware and software.
- Provide guidance and best practices for technical staff to support a one-to-one device program and infrastructure.

Strategic Intent 2: Support a technology infrastructure providing opportunities for equitable education for all children attending Wyoming's K–12 public schools.

- Communicate with districts around programs providing affordable high-speed internet access to homes.

- Advocate for public and postsecondary libraries to provide access to high-speed internet for students to utilize while in the library as well as hotspot check-out for use at home.

Data Privacy and Security

Strategic Intent 1: Student and staff information and data are secure and data privacy is maintained. Create recommendations and promote industry standards and best practices for information security and data privacy.
- Support coordination of school districts after completing a SGAP.
- Provide guidance to and advocate for districts and schools to be properly equipped with the administrative, physical, and technical resources to ensure student data privacy is being maintained.
- Provide guidance and advocate for all software resources to be vetted and applications to be trusted for student data privacy.

Strategic Intent 2: Ensure students, staff, families/caregivers, and the community understand how to secure information and maintain data privacy.
- Provide guidelines and advocate for data privacy and security with an annual refresh for continuous improvement.
- Publish guidelines to educate families/caregivers and community members on data privacy.
- Promote and advocate for cybersecurity awareness and training for district staff and students.

Postsecondary Level Strategies
Instruction and Learning

Strategic Intent 1: Educational technology is effectively used to enable and enhance student-centered learning for all.
- Provide educational technology and training for all preservice teachers to support student-centered learning approaches.
- Ensure preservice teachers demonstrate the effective use of educational technology to support student-centered approaches.
- Provide professional learning opportunities for inservice educators to update skills and knowledge related to emerging educational technologies to support student-centered approaches.

Digital Literacy and Digital Citizenship

Strategic Intent 1: Students and educators will practice and be able to apply effective digital literacy and digital citizenship skills.
- Include information about which digital literacy and digital citizenship skills to teach at each grade level and all content areas in professional learning experiences for preservice and inservice educators.
- Provide opportunities for preservice and inservice educators to demonstrate competency in applying
effective digital literacy and digital citizenship skills.
- Offer preservice and inservice professional learning experiences to support educators in teaching digital literacy and digital citizenship including new and emerging technologies.
- Offer preservice and inservice professional learning experiences to support educators to identify and use credible digital sources of information to build knowledge and make decisions.

Strategic Intent 2: Students and educators will use technology in a way that promotes optimal digital wellness.

- Offer preservice and inservice professional learning experiences to support educators to use the internet and digital tools in a balanced, safe, respectful, and responsible manner.

Human Capacity

Strategic Intent 1: Personalized professional learning choices and resources that build educators' capacity to use digital learning, including Universal Design for Learning (UDL) principles, to improve student outcomes are available.

- Provide ongoing professional learning opportunities for educators to increase their ability to critically examine the efficacy and applicability of new and emerging technologies and adopt those that are appropriate for improving student learning.
- Provide resources and opportunities for professional learning to build capacity in the design and implementation of UDL.

Strategic Intent 2: Educational staff who are continuing their professional growth by demonstrating innovative instructional practices utilizing digital learning are recognized and celebrated.

- Provide an awards program that recognizes educators who are demonstrating effective and innovative digital learning practices.
- Create opportunities for preservice and inservice educators to obtain licensure, certifications, badges, and micro-credentials for digital learning.

Strategic Intent 3: A network of educators and organizations is created that focuses on sharing digital learning best practices, implementation strategies, and successful outcomes.

- Provide resources that support a network for educators and organizations to share digital learning best practices, implementation strategies, and successful outcomes.
- Encourage preservice and inservice educators to contribute examples of effective use of digital learning to a statewide resource bank.

Strategic Intent 4: Technology and instructional staff are available to effectively support the use of digital learning for all staff and students.

- Provide resources to support coaching for educators on technology equipment and digital learning tools.
- Provide training for technology support staff that enables them to work effectively with educators and students.

Community, Higher Education, School, and Family Collaboration

Strategic Intent 1: Partnerships between families, K-12 systems, postsecondary institutions, and libraries enable expanded opportunities to learn from each other and leverage resources together.

- Postsecondary collaborates with WDE and K-12 educators to create and deliver professional development experiences with instructional technology.
- Create supports to assist preservice and inservice educators to engage with parents/caregivers to share digital tools and technologies that foster student learning.
- Collaborate with WDE and K-12 educators to conduct research on the effectiveness of digital learning practices.
- Collaborate with WDE, K-12, and libraries to foster opportunities for educators to observe and learn from others who are effectively using instructional technology.

- Advocate and identify ways for agencies and school districts to collaborate on data security-related and cybersecurity-related purchasing and funding sources.

Strategic Intent 2: Collaboration provides students with access to opportunities that prepare them to learn, work, contribute, and thrive.
- Collaborate with industry partners and state/federal agencies to infuse their technology into learning experiences for preservice and inservice educators.
- Collaborate with K-12 to articulate expectations for digital learning to assist students in being successful in college.

Robust Infrastructure and Education Technology

Strategic Intent 1: Every school has the capacity to successfully plan, procure, and manage their LAN/Wi-Fi Networks, including sufficient funding, staff, and expertise.
- Advocate for equitable access to high-speed internet to, in, and between schools.
- Collaborate with state and district partners on guidance, resources, and best practices for technology replacement of district hardware and software.
- Provide training and certifications for technical staff to enable them to support one-to-one device programs and infrastructure.

Strategic Intent 2: Support a technology infrastructure providing opportunities for equitable education for all children attending Wyoming's K–12 public schools.
- Advocate for affordable access to high-speed internet in homes.
- Advocate for postsecondary libraries to provide access to high-speed internet for students to utilize while in the library as well as hotspot check-out for use at home.

Data Privacy and Security

Strategic Intent 1: Student and staff information and data are secure and data privacy is maintained.
- Provide opportunities for preservice and inservice educators and administrators to understand how the use of digital tools impacts information security and data privacy.
- Ensure technical staff in districts have the skills needed to complete a SGAP.
- Advocate for districts and schools to be properly equipped with the administrative, physical, and technical resources to ensure student data privacy is being maintained.
- Advocate for software resources to be vetted and applications can be trusted for student data privacy.

Strategic Intent 2: Ensure students, staff, families/caregivers, and the community understand how to secure information and maintain data privacy.
- Ensure preservice and inservice teachers have knowledge and awareness of data privacy and security.
- Advocate for educating families/caregivers and community members on data privacy.
- Provide cybersecurity awareness training for all preservice and inservice teachers.

District Level Strategies
Instruction and Learning

Strategic Intent 1: Educational technology is effectively used to enable and enhance student-centered learning for all.

- Provide resources and opportunities for professional learning to update skills and knowledge related to emerging educational technologies to support student-centered approaches.
- Provide appropriate educational technology for teachers and students to support student-centered approaches to learning and assessment.
- Provide opportunities for the sharing and demonstration of best practices for student-centered approaches to learning and assessment by teachers across the district.

Digital Literacy and Digital Citizenship

Strategic Intent 1: Students and educators will practice and be able to apply effective digital literacy and digital citizenship skills.

- Adopt and support implementation of a comprehensive scope and sequence curriculum for teaching digital literacy and digital citizenship that specifies what to teach at each grade level or band and all content areas.
- Provide opportunities and time for students and educators to demonstrate competency in applying effective digital literacy and digital citizenship skills.
- Provide resources and opportunities for professional development to support schools' implementation of a comprehensive scope and sequence curriculum for teaching digital literacy and digital citizenship including new and emerging technologies.
- Provide opportunities and resources to support students and staff to identify and use credible digital sources of information to build knowledge and make decisions.

Strategic Intent 2: Students and educators will use technology in a way that promotes optimal digital wellness.

- Provide opportunities and resources to support students and staff to use the internet and digital tools in a balanced, safe, respectful, and responsible manner.

Human Capacity

Strategic Intent 1: Personalized professional learning choices and resources that build educators' capacity to use digital learning, including Universal Design for Learning (UDL) principles, to improve student outcomes are available.

- Provide adequate time and support for educators to build and practice their skills to integrate and balance the use of technology in instruction.
- Provide adequate time and support for educators to participate in professional learning experiences to effectively use technology to personalize student learning.
- Provide adequate time and support for educators to build and practice their ability to critically examine the efficacy and applicability of new and emerging technologies and adopt those that are appropriate for improving student learning.
- Provide adequate time and support for educators to build and practice their ability to design and implement UDL.

Strategic Intent 2: Educational staff who are continuing their professional growth by demonstrating innovative instructional practices utilizing digital learning are recognized and celebrated.

- Provide recognition for educators who continue their professional growth by demonstrating innovative instructional practices utilizing digital learning.
- Provide incentives and/or support for educators to receive licensure, certifications, and micro-credentials for digital learning.

Strategic Intent 3: A network of educators and organizations is created that focuses on sharing digital learning best practices, implementation strategies, and successful outcomes.

- Create a districtwide professional learning network for educators to share digital learning best practices, implementation strategies, and successful outcomes.
- Encourage and support educators to contribute to and use examples of effective use of digital learning from the statewide resource bank.

Strategic Intent 4: Technology and instructional staff are available to effectively support the use of digital learning for all staff and students.

- Provide coaching on technology equipment and digital learning tools for educators.
- Provide timely technology support to schools to minimize disruptions to the learning environment.

Community, Higher Education, School, and Family Collaboration

Strategic Intent 1: Partnerships between families, K-12 systems, postsecondary institutions, and libraries enable expanded opportunities to learn from each other and leverage resources together.

- District provides opportunities, time, and resources for staff collaboration to create and deliver professional development experiences that utilize instructional technology.
- Create districtwide opportunities that allow parents/caregivers to engage with digital tools and technology that foster student learning.
- Collaborate with WDE and postsecondary educators to evaluate the effectiveness of digital learning practices.
- Provide opportunities for districtwide coordination of teachers to observe and learn from other teachers who are effectively using instructional technology.
- Advocate and identify ways for schools and districts across the state to collaborate on data security-related and cybersecurity-related purchasing and funding sources.

Strategic Intent 2: Collaboration provides students with access to opportunities that prepare them to learn, work, contribute, and thrive.

- Collaborate with industry partners and state/federal agencies to infuse their technology as support for curriculum to better prepare students for work-based learning opportunities and careers.
- Encourage collaboration between school districts and postsecondary institutions to align expectations for digital learning that lead to postsecondary success.

Robust Infrastructure and Education Technology

Strategic Intent 1: Every school has the capacity to successfully plan, procure, and manage their LAN/Wi-Fi Networks, including sufficient funding, staff, and expertise.

- Provide and advocate for equitable access to high-speed internet to, in, and between schools.
- Plan for and implement best practices for technology replacement for hardware and software.

- Ensure there are sufficient certified technical staff available to support a one-to-one device program and infrastructure.

Strategic Intent 2: Support a technology infrastructure providing opportunities for equitable education for all children attending Wyoming's K–12 public schools.
- Communicate with families about programs providing affordable high-speed internet access to homes.
- Advocate for public and postsecondary libraries to provide access to high-speed internet for students to utilize while in the library as well as hotspot check-out for use at home.

Data Privacy and Security

Strategic Intent 1: Student and staff information and data are secure and data privacy is maintained.
- Adopt, adapt, and implement industry standards and best practices for information security and data privacy.
- Complete the SGAP.
- Ensure all district schools are properly equipped with the administrative, physical, and technical resources to ensure student data privacy is being maintained.
- Provide guidance and ensure all software resources are vetted and applications can be trusted for student data privacy.

Strategic Intent 2: Ensure students, staff, families/caregivers, and the community understand how to secure information and maintain data privacy.
- Implement policies, procedures, best practices, and training for staff to develop knowledge and awareness of data privacy and security.
- Support schools to provide guidance and educate families/caregivers and community members on data privacy.
- Provide cybersecurity awareness training to all district staff and students.

School Level Strategies
Instruction and Learning

Strategic Intent 1: Educational technology is effectively used to enable and enhance student-centered learning for all.
- Provide resources and opportunities for professional learning to update skills and knowledge related to emerging educational technologies to support student-centered approaches.
- Educate students, families and community members on how educational technology supports student-centered learning and assessment.
- Provide feedback and support to teachers and students on their use of educational technologies for student-centered learning and assessment.
- Provide opportunities for the sharing and demonstration of best practices for student-centered learning and assessment by teachers throughout the school.

Digital Literacy and Digital Citizenship

Strategic Intent 1: Students and educators will practice and be able to apply effective digital literacy and digital citizenship skills.

- Implement a comprehensive scope and sequence curriculum for teaching digital literacy and digital citizenship that specifies what to teach at each grade level or band and all content areas.
- Provide opportunities and time for students and educators to demonstrate competency in applying effective digital literacy and digital citizenship skills.
- Provide opportunities and time for professional development to support teachers' implementation of a comprehensive scope and sequence curriculum for teaching digital literacy and digital citizenship including new and emerging technologies.
- Provide opportunities to support students and staff to identify and use credible digital sources of information to build knowledge and make decisions.

Strategic Intent 2: Students and educators will use technology in a way that promotes optimal digital wellness.

- Provide opportunities to support students and staff to use the internet and digital tools in a balanced, safe, respectful, and responsible manner.

Human Capacity

Strategic Intent 1: Personalized professional learning choices and resources that build educators' capacity to use digital learning, including Universal Design for Learning (UDL) principles, to improve student outcomes are available.

- Provide adequate time and support for educators to build and practice their skills to integrate and balance the use of technology in instruction.
- Provide adequate time and support for educators to participate in professional learning experiences to effectively use technology to personalize student learning.
- Provide adequate time and support for educators to build and practice their ability to critically examine the efficacy and applicability of new and emerging technologies and adopt those that are appropriate for improving student learning.
- Ensure UDL design principles are used in courses and digital tools provided to students.

Strategic Intent 2: Educational staff who are continuing their professional growth by demonstrating innovative instructional practices utilizing digital learning are recognized and celebrated.

- Provide recognition for educators who continue their professional growth by demonstrating innovative instructional practices utilizing digital learning.
- Provide time and support for educators to receive licensure, certifications, and micro-credentials for digital learning.

Strategic Intent 3: A network of educators and organizations is created that focuses on sharing digital learning best practices, implementation strategies, and successful outcomes.

- Incorporate digital learning discussions into professional learning communities to share digital learning best practices, implementation strategies, and successful outcomes.
- Encourage and support educators to contribute to and use examples of effective use of digital learning from the statewide resource bank.

Strategic Intent 4: Technology and instructional staff are available to effectively support the use of digital learning for all staff and students.

- Provide time and support for coaching on technology equipment and digital learning tools for educators.
- Provide timely technology support to educators and students to minimize disruptions to the learning environment.

Community, Higher Education, School, and Family Collaboration

Strategic Intent 1: Partnerships between families, K-12 systems, postsecondary institutions, and libraries enable expanded opportunities to learn from each other and leverage resources together.

- Schools provide opportunities, time, and resources for staff to collaborate on creating and/or delivering professional development experiences with instructional technology.
- Create schoolwide opportunities that allow parents/caregivers to engage with digital tools and technology that foster student learning.
- Provide opportunities and time for staff to participate in collaborative efforts to evaluate the effectiveness of digital learning practices.
- Provide opportunities for schoolwide coordination for teachers to observe and learn from other teachers who are effectively using instructional technology.
- Advocate and identify ways for agencies and schools across the state to collaborate on data security-related and cybersecurity-related purchasing and funding sources.

Strategic Intent 2: Collaboration provides students with access to opportunities that prepare them to learn, work, contribute, and thrive.

- Collaborate with industry partners and state/federal agencies to infuse their technology as support for curriculum to better prepare students for work-based learning opportunities and careers.
- Assist students in being successful in college by providing learning experiences that align with postsecondary expectations for digital learning.

Robust Infrastructure and Education Technology

Strategic Intent 1: Every school has the capacity to successfully plan, procure, and manage their LAN/Wi-Fi Networks, including sufficient funding, staff, and expertise.

- Advocate for and provide feedback on access to high-speed internet within the school.
- Support implementation of best practices for technology replacement for hardware and software.
- Provide feedback on the support provided by the technical staff on one-to-one device program and infrastructure.

Strategic Intent 2: Support a technology infrastructure providing opportunities for equitable education for all children attending Wyoming's K–12 public schools.

- Communicate with families around programs providing affordable high-speed internet access to homes.
- Advocate for public and postsecondary libraries to provide access to high-speed internet for students to utilize while in the library as well as hotspot check-out for use at home.

Data Privacy and Security

Strategic Intent 1: Student and staff information and data are secure and data privacy is maintained.

- Implement industry standards and best practices for information security and data privacy.
- Support the completion of a SGAP.
- Ensure the school is properly equipped with the administrative, physical, and technical resources to ensure student data privacy is being maintained.
- Ensure all software resources are vetted and applications can be trusted for student data privacy.

Strategic Intent 2: Ensure students, staff, families/caregivers, and the community understand how to secure information and maintain data privacy.

- Implement standards for information security and data privacy.
- Educate families and community members on data privacy.
- Ensure all school staff and students complete cybersecurity awareness training.