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To: Dr. Mike Riggle

CC: Board of Education

RE: Technology Vision

April 8, 2015

Based upon District initiatives adopted July 28, 2014, the District pursued the development of a Technology Vision. Using a process known as design thinking, the work of nearly 50 educators and 40 administrators yielded a three year plan that includes a Learning and Teaching with Technology Vision, seven Areas of Focus for the achievement of the vision, and prototype potential recommendations and strategies for each Area of Focus.

Please find attached a summary document of the Technology Vision that is inclusive of the following:

1. Historical overview of our district technology plans
2. The "Learning and Teaching with Technology" vision
3. Vision development process
4. Summary of data used to develop the vision

An overview of this Technology Vision will be presented at the April 13 board meeting.

Historical Overview

In 2009-2010, a vision was developed around the concept of “innovation without restriction”. While the concept of innovation remains at our core, it is time to progress our roadmap by reimagining what is possible as we move from a mobile to a cloud-based environment.

The following descriptors for District 225’s learning ecosystem were adopted in 2009-2010 and expanded as we evolved:

<i>Accessible</i>	<i>Agency</i>	<i>Agility</i>
<i>Collaborative</i>	<i>Customizable</i>	<i>Empowerment</i>
<i>Engagement</i>	<i>Fiscally Responsible</i>	<i>Global</i>
<i>Innovation</i>	<i>Integrative</i>	<i>Interactive</i>
<i>Literacy-Based</i>	<i>Mobile</i>	<i>Participatory</i>
<i>Reliable</i>	<i>Seamless</i>	<i>Secure</i>
<i>Streamlined</i>		

These descriptors along with the theme of Engagement and the mindset of “never landing” form the foundation of decision-making, growth, and resource allotment in the area of technology for shaping our learning ecosystem.

Historical Timeline

2008-2011	Innovation without Restriction: Mobile Teacher Experience and Infrastructure
2011-2014	Innovation without Restriction: Mobile Student Experience

New Vision

With the conclusion of Innovation without Restriction and the achievement of a mobile experience for all learners, a new vision is desired. Given the ever-changing landscape, this vision is based upon three years of and is rooted in deepening the foundation of learning and teaching with technology and a continued shift to an anytime, anywhere cloud-based learning environment. This three year vision will enable a great degree of innovation during the next three year plan.

Learning and Teaching with Technology Vision

The following vision was created during the 2014-2015 academic year. It is inclusive of a three year plan with areas of focus for bringing the vision to life.

Vision Statement

The Glenbrook District will be a learning environment and experience rooted in engagement, citizenship, and the 4Cs: collaboration, communication, creativity, and critical thinking.

Vision Manifesto

The construction of this vision is rooted in beliefs that helped guide this process. These statements represent a consolidation of thoughts shared by technology facilitators in relation to beliefs about this plan.

We believe...

- this is about engagement, citizenship, and the 4Cs: collaboration, communication, critical thinking, and creativity
- there needs to be continued emphasis and efforts to intimately link pedagogy, spaces, and technology
- in ongoing, sustained professional development that is rooted in autonomy, and choice is key
- technology enhances and is a part of what we do; it is not what we do
- learning and the learner experience will be more authentic, consistent, deep, and engaging
- learning and the learner experience will be lifelong learning focused, personalized, promoted, relevant, supported, and actionable
- professional development will be lifelong learning focused, personalized, promoted, relevant, supported, and actionable
- spaces will inspire learning and energize teachers and students
- spaces will support student and teacher innovation and learning
- this plan should not be an add-on but a foundation of what we do
- this plan offers more opportunities for all stakeholders to be involved
- this plan should be agile and evolve organically
- this plan grows our environment together and takes us to the next level
- this plan focuses our energy and resources
- this plan creates a desire for expanded learning and innovation

Areas of Focus During Three Year Plan

The following are areas of focus over three years that establish the conditions to achieve success with the aforementioned vision.

Focus One: Develop a full ecosystem of software and hardware supporting anywhere, anytime learning.

Focus Two: Redesign classrooms and informal areas as active learning spaces.

Focus Three: Create conditions to design and expand digital textbook/resources.

Focus Four: Develop active digital spaces in all courses for blended learning.

Focus Five: Grow the use of the Google Ecosystem as the foundational platform for the learner experience.

Focus Six: Redesign professional learning with an emphasis on increased individualization and unity between pedagogy, technology, and space.

Focus Seven: Develop citizenship, collaboration, communication, critical thinking, and creativity across the curriculum.

Measurement of Vision Progress

This vision is to be measured using the following mechanisms:

1. Instructional Practices Inventory (IPI)
2. Experiential Sampling Method (ESM)
3. Clarity Survey Instrument

Vision Development Process

This vision was developed using a process known as design thinking, a human-centered, iterative process focused on need-finding and innovating. The process is based upon flows. In other words, these are sequential only for understanding. In practice, they are ongoing and fluid. This includes a constant check on whether we need additional data and perspectives.

Seven Flows

The following are the design thinking flows used during the process.

1. Scoping
2. 360 Degree Research
3. Synthesis
4. Ideation
5. Prototyping
6. Validation
7. Implementation

Scoping

Scoping is about framing the issue and a clear identification of a design challenge. This issue is a visionary challenge with a focus on 3 years into the future. Given the mission of instructional technology is to provide the resources, tools, and experiences for District 225 that best supports and pushes teaching, learning, and administration, the design challenge centered on the following question: How might we use technology to support and push our vision of learning and teaching? This question allowed the emergence of the needs in the themes mentioned in the next section.

360 Degree Research

360 Degree Research is about gathering as many internal and external perspectives on the design challenge as possible. This allows for increased empathy and a human-centered process to emerge. Interviews, interest inventory surveys, focus groups, and a survey instrument known as Clarity from BrightBytes provided internal perspectives. Horizon Reports, Consortium for School Networks, outside experts, and national data from BrightBytes provided external perspectives.

Synthesis

Synthesis is about analyzing and interpreting the various data. This allows for validation of focus and development of unidentified needs. Using meetings with the IS and department technology facilitators, the aforementioned themes were again validated. As part of the visioning workshop, technology facilitators along with the APs of Curriculum and instructional technology completed the synthesis flow:

- Review data including surveys, Clarity data, external data, and colleague briefs
- Validate themes and questions with new data

Ideation

Ideation is about the creation of a high volume of ideas that are innovative solutions. The key is to generate ideas that are far-reaching and extend beyond the comfort zone. Each theme is explored around core questions with the starting point conversations being a review of our District Learning Outcomes and vision of learner centered, engaged environments: Does this remain our vision of learning and teaching district-wide? Does our current technology align? As part of the visioning workshop, technology facilitators along with the APs of Curriculum and instructional technology completed the ideation flow:

- Ideated around an individual theme
 - debated and discussed the questions within each theme
 - interviewed colleagues in the group or in other groups
 - sought additional feedback from students and teachers
- Developed ideas for addressing this theme

Prototyping

Prototyping is the generation of potential recommendations and solutions that address the design challenge. The focus is on the rapid creation of a prototype recommendation/solution that can be shared, evaluated, and improved. As part of the visioning workshop, technology facilitators along with the APs of Curriculum and instructional technology began the prototyping flow:

- Created a prototype from ideas grown out of the Ideation flow
- Shared, evaluated, and improved the prototype recommendations
 - Elevator Pitch of Prototype
 - Six Thinking Hat Feedback Cycle
 - Open Forum Debate
- Each interest group made adjustments to frame final prototype for movement to the “Validation” phase
- Recommendations created for this theme
- Each prototype includes five scales:
 - Brave Scale: How brave and courageous is this prototype?
 - Innovation Scale: How innovative is this prototype?
 - Happiness Scale: Will people be excited and happy about this prototype?
 - Belief Scale: Do we have the right organizational mindsets with this prototype?
 - Needs Scale: Is this prototype a recognized need organizationally?

Validation

Validation is the sharing of the prototype recommendations/solutions with a focus on improvement. This flow was the heart of the work done by building and district administration. This is done with four questions:

1. Is it desirable?
2. Is it viable (sustainable)?
3. Is it feasible (capacity to do)?

Implementation

Implementation is about the development of a roadmap towards bringing the vision to life. At the core, it is about why, how and when we will achieve each prototype recommendation/solution. This includes the placement of the prototype recommendations/solutions into one of the three Horizons. The end result is a Learning and Teaching Technology Plan Roadmap.

The recommendations that emerge in this vision focus on the three horizons of innovation:

1. Horizon One is about analysis and enhancements to current practices. Horizon One recommendations are 0-12 months away from implementation.
2. Horizon Two is about exploration and growth of new practices. Horizon Two recommendations are 12-36 months away from implementation.
3. Horizon Three is about imagination and focus on new mindsets and possibilities (10x thinking). Horizon Three recommendations are 24+ months away from implementation.

Summary of Data

The following represents a summary of the data that emerged in the development of this vision document.

Emerging Themes

Throughout the 2013-2014 and 2014-2015 academic years, instructional technology gathered and validated data using interviews, interest inventory surveys, and focus groups. Based upon this work, the following themes emerged and were validated as areas of focus. These themes allow for growth and innovation with a focus on deepening our current learning ecosystem.

1. Cloud-Based Environment for Access, Engagement, and the 4Cs
2. Active Learning Spaces
3. Digital Resource Expansion
4. Learning Analytics and Dashboard Development
5. Google Ecosystem Growth
6. Professional Development and the Learner Experience

These build off our past vision documents that moved from desktop to mobile and Internet-based under “Innovation without Restriction” to a continued focus on amplifying anywhere, anytime learning via cloud-based solutions. Also, these align deeply to the technology trends: ubiquitous access to information via the Internet, mobile devices and global connectivity, and cloud-based computing.

Digital Textbook Survey

During the 2014-2015 academic year, students and teachers engaged in the use of a digital textbook for one semester were surveyed on the experience. The following represents key findings that shaped the development of this vision:

1. 50% of students agree that they can learn as effectively with a digital textbook compared to a print textbook compared with 41% that don't.
2. Students feel the three most beneficial parts of a digital textbook are a) lighter and more mobile b) anywhere, anytime accessibility c) price
3. Students feel the three greatest challenges to a digital textbook are a) screen viewing/eye strain b) distractions c) annotations/active reading
4. 71% of teachers agree that they can learn as effectively with a digital textbook compared to a print textbook compared with 29% that don't.
5. Teachers feel the three most beneficial parts of a digital textbook are a) price b) lighter and more mobile c) anywhere, anytime accessibility
6. Teachers feel the three greatest challenges to a digital textbook are a) annotations/active reading b) distractions c) navigation issues

Learning Space Focus Group

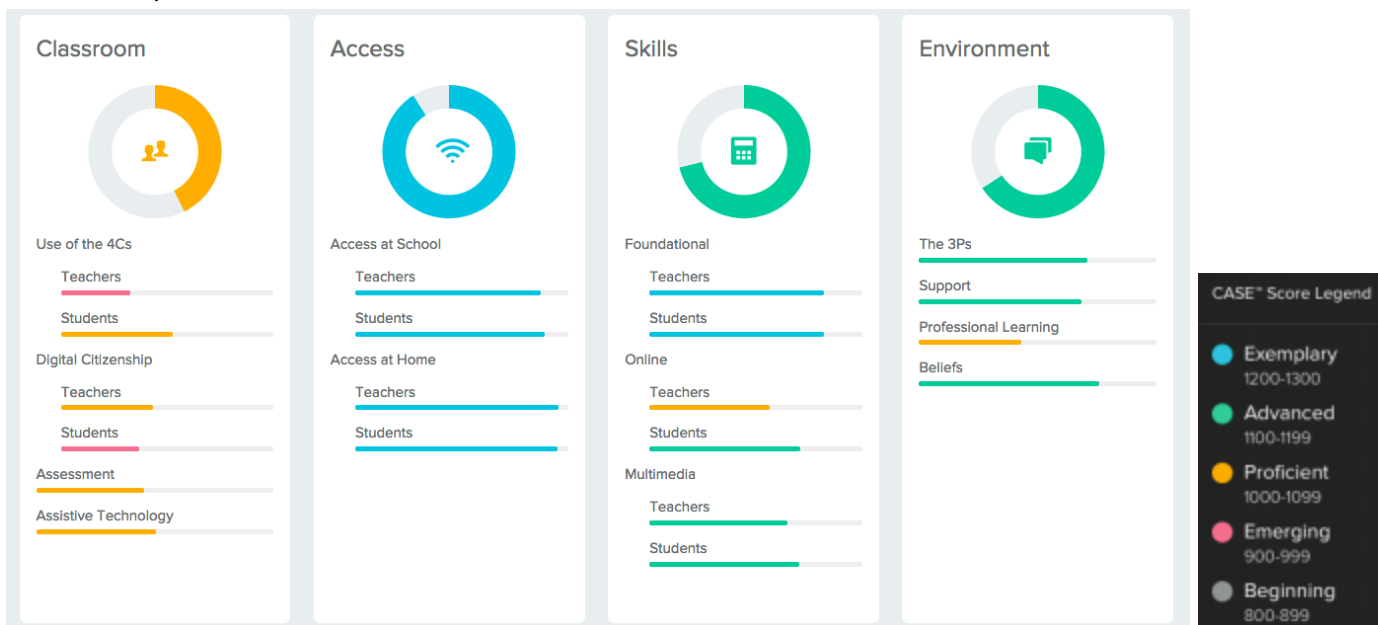
During the 2013-2014 academic year, 24 educators and 10 students participated in entry design thinking to reimagine the possibilities of our learning spaces in order to align our habitats with our desired habits. Reimagining classroom spaces does not start with furniture. Furniture is but one outcome of reimagining classrooms as learning spaces. Where does it start? Emotions. Perceptions. Experiences. Traits. And we take those current realities and we dream about something better, about something more magical. The following is a summary of these findings that shaped the development of this vision:

1. Teachers' feelings and perspectives on the current classrooms revealed a consumption based, boring, and teacher-centered environment. They desire an engaging, exciting, and learner-centered environment.
2. Students' feelings and perspectives on the current classrooms revealed a boring and consumption based experience. They desire an active, alive, and engaging environment.
3. Desired learning experiences are collaborative, reflective, active, and creation centered.
4. Desired learning spaces are flexible and agile, adaptable and changeable, ergonomically sound and durable, writable learning spaces, and studio-based.
5. Desired technology traits are blended, mobile, internet-based learning, and touch-enabled.
6. Classroom spaces need to accommodate individual, pair, group, and whole-class learning.

Clarity Survey Instrument from BrightBytes

During the 2014-2015 academic year, the District gave a survey instrument known as Clarity to further identify needs and progress with our learning and teaching with technology. The following represents key findings of importance that shaped the development of this vision:

District Snapshot



Key Findings

Overall, our district scored "Advanced" in the CASE results (Classroom, Access, Skills, and Environment) with a score of 1105 on a scale of 800-1300. Exemplary, 1200 or higher, is the one higher category.

- 85% of students are using chromebooks in the classroom "almost daily".
- 71% of students feel school-issued technology (e.g. Chromebooks) supports the needs of their learning.
- 94% of teachers and 84% of students feel technology can enhance learning. Almost 100% of both students and teachers feel "school encourages technology use for learning and teaching".
- Compared with the averages of other districts surveyed, our students experience a greater weekly frequency of classroom technology use for the 4Cs (Communication, Collaboration, Critical Thinking, and Creativity).
- There is a need to increase the focus on and awareness of digital citizenship.

Areas of Focus for the District

The following areas were determined as district priorities based upon the survey instrument:

1. Develop and implement a *Digital Citizenship* program across the curriculum
2. Increase use of technology within the 4Cs: creativity, critical thinking, communication, and collaboration
3. Increase focus and time for professional learning that is blended between pedagogy, technology, and space
4. Improve anywhere, anytime learning through increased use of digital assessment tools, a focus on the use of assistive technologies, and an increase in teacher use of online tools both personally and professionally