Budget

Columbus City School District (043802) - Franklin County - 2014 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (395)

U.S.A.S. Fund #:
Plus/Minus Sheet (opens new window)

| Object Code / Purpose Code | Salaries 100 | Retirement Fringe Benefits 200 | Purchased Services 400 | Supplies 500 | Capital Outlay 600 | Other 800 | Total |
|---|---|---|---|---|---|---|---|
| **Instruction** | 0.00 | 0.00 | 2,649,600.00 | 5,576,000.00 | 0.00 | 0.00 | 8,225,600.00 |
| **Support Services** | 0.00 | 0.00 | 750,000.00 | 0.00 | 0.00 | 0.00 | 750,000.00 |
| **Governance/Admin** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Prof Development** | 243,000.00 | 60,750.00 | 705,000.00 | 0.00 | 0.00 | 0.00 | 1,008,750.00 |
| **Family/Community** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Safety** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Facilities** | 0.00 | 0.00 | 4,900,000.00 | 0.00 | 0.00 | 0.00 | 4,900,000.00 |
| **Transportation** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 243,000.00 | 60,750.00 | 9,004,600.00 | 5,576,000.00 | 0.00 | 0.00 | 14,884,350.00 |
| | | | | | | **Adjusted Allocation** | 0.00 |
| | | | | | | **Remaining** | -14,884,350.00 |

Application

Columbus City School District (043802) - Franklin County - 2014 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (395)

**Applicants shall respond to the prompts or questions in the areas listed below in a narrative form.**

**A) APPLICANT INFORMATION - General Information, Experience and Capacity**

1. Project Title:Digital First Learning - Transforming Education in Ohio

2.Executive summary: Provide an executive summary of your project proposal and which goal(s) in question 9 you seek to achieve. Please limit your responses to no more than three sentences.

We know that each child learns at his or her own pace, and that children learn best when they have access to the right level of materials at the right time for their learning. The Digital First Learning Project will pair Ohio State University (OSU) faculty with Columbus City Schools' (CCS) teachers to create modular digital content and learn new ways of teaching with this content; it will use data analytics and assessment to understand the skill level and learning style of each child and ensure they can access the right level of materials at the right time; and it will ensure that each CCS student has the technology tools needed to learn, with this material, at his or her own pace. This project will increase student achievement and create spending reductions in the five-year fiscal forecast by transforming content, pedagogy and technology access across the district, and by building personalized learning environments to help students succeed in the world they are learning in today and the world they will live and work in tomorrow.

8500 3. Total Students Impacted:

4. Lead applicant primary contact: - Provide the following information:

First Name, last Name of contact for lead applicant: Michael Fulwider

Organizational name of lead applicant: Columbus City Schools

Unique Identifier (IRN/Fed Tax ID) [redacted] / IRN: 043802

Address of lead applicant: 270 E. State Street, Columbus, OH 43215

Phone Number of lead applicant: 614-365-5888

Email Address of lead applicant: Mfulwider7158@columbus.k12.oh.us

5. Secondary applicant contact: - Provide the following information, if applicable:

First Name, last Name of contact for secondary applicant: Liv Gjestvang

Organizational name of secondary applicant: Office of Distance Education and eLearning, The Ohio State University

Unique Identifier (IRN/Fed Tax ID): [redacted]

Address of secondary applicant: 224 Mount Hall, 1050 Carmack Rd., Columbus, OH 43210

Phone number of secondary applicant: 614-247-6457

Email address of secondary applicant: gjestvang.1@osu.edu

6. List all other participating entities by name: Provide the following information for each additional participating entity, if applicable: Mention First Name, Last Name, Organizational Name, Unique Identifier (IRN/Fed Tax ID), Address, Phone Number, Email Address of Contact for All Secondary Applicants in the box below.

Kui Xie, Assistant Professor Department of Educational Studies College of Education and Human Ecology The Ohio State University OSU Federal Tax ID [redacted] 310K Ramseyer Hall 29 West Woodruff Avenue Columbus, OH 43210 Phone: 614-292-4438 xie.359@osu.edu

7. Partnership and consortia agreements and letters of support: - (Click on the link below to upload necessary documents).

* Letters of support are for districts in academic or fiscal distress only. If school or district is in academic or fiscal distress and has a commission assigned, please include a resolution from the commission in support of the project.

* If a partnership or consortium will be established, please include the signed Straight A Description of Nature of Partnership or Description of Nature of Consortium Agreement.

UploadGrantApplicationAttachment.aspx

8. Please provide a brief description of the team or individuals responsible for the implementation of this project including relevant experience in other innovative projects. You should also include descriptions and experiences of partnering entities.

The Digital First Learning Project is a partnership between Columbus City Schools and The Ohio State University, led by an interdisciplinary team with expertise in educational content design, learning technology development, research and evaluation, system and infrastructure implementation, and IT project management. This partnership addresses recommendations from the FutureReady Columbus Plan, a roadmap to creating district-wide transformation to improve our city's schools. The groundwork laid by this Plan, developed through extensive research and assessment from the Columbus Education Commission, positions us to achieve significant research-based results across our district. Columbus City Schools has a long history of successfully implementing new and innovative school concepts, including alternative, career technical, culture-based (Africentric), global language-based, art-focused and single-gender schools. Columbus Alternative High School (CAHS) earned national recognition by receiving a Silver Medalist ranking by US News & World Report and was selected in 2012 as one of Newsweek's Top 25 Transformative High Schools in the nation. CCS also has experience with the implementation and financial management of large scale, district-wide initiatives. Currently in year four of Race to the Top implementation, CCS received $20 million dollars to focus on the following core educational assurance areas: Standards and Assessments, Using Data to Improve Instruction, Great Teachers and Leaders, and Turning Around the Lowest Achieving Schools. As the largest school district in Ohio, CCS has the infrastructure to manage a project of this scale. Teachers are supportive of innovation and continuing their education, particularly when the end result is an increase in student achievement and success. CCS will be responsible for the financial management, teacher recruitment, student recruitment, lab school development and technology distribution components of this project. The Ohio State University brings to this partnership the resources and demonstrated success of Ohio's flagship University, one of the largest institutes of higher education in the nation. These resources include our Digital First Initiative, an international model for the use of digital content and mobile technology in higher education, and the College of Education and Human Ecology, ranked 10th among public universities in US News & World Report. OSU launched its Digital First Initiative in 2012 to transform teaching and learning throughout the institution. The goal was straightforward and uncompromising: to make OSU a global leader in the delivery of 21st-century higher education. This initiative has transformed teaching and learning through globally popular iTunes U and Coursera courses, digital textbook creation, infrastructure and classroom redesign, and technology implementation. The Digital First Initiative was awarded the New Media Consortium's International Center for Excellence Award in 2013. The College of Education and Human Ecology (EHE) at OSU offers robust research and evaluation expertise in educational projects. Collaboration with EHE faculty will ensure that the design, development, implementation, and evaluation processes of the proposed project are grounded upon sound instructional principles and learning theories and built with scientific, reliable and valid research methodologies. OSU will lead the creation of digital content, the design of digital pedagogy-based professional development, the research and evaluation, the expansion of the Innovation Center, and will guide infrastructure and classroom updates in CCS buildings. We believe that pairing the change-ready atmosphere in CCS with the demonstrated success of OSU's Digital First initiative will create a powerful model for the integration of state-of-the-art technology tools, materials, and data to transform K12 learning across the district, and eventually, the state.

**B) PROJECT DESCRIPTION - Overall description of project and alignment with Outcomes**

9. Which of the stated Straight A Fund goals does the proposal aim to achieve? - (Check all that apply)

- [x] Student achievement
- [x] Spending reductions in the five-year fiscal forecast
- [x] Utilization of a greater share of resources in the classroom

10. Which of the following best describes the proposed project? - (Select one:)

- [ ] New - never before implemented
- [x] Existing and researched-based - never implemented in your district or community school but proven successful in other educational environments
- [ ] Mixed Concept - incorporates new and existing elements
- [ ] Enhancing/Scale Up - elevating or expanding an effective program that is already implemented in your district, school, or consortia partnership

11. Describe the innovative project.

The Columbus Education Commission, formed in December 2012, was charged by Mayor Michael Coleman to create a plan that would enable all of Columbus' children to succeed in the city's growing economy. Currently, nearly a third of CCS kindergarteners come to school unprepared; 47% of CSS students attend a school rated D or F; CCS is ranked in the lowest 1% (824 out of 832 districts and public charter schools) in value-added rating; and CCS is losing nearly half of students between 9th and 12th grade. Through a process of extensive community-based research, and with input from national leaders in educational innovation, the FutureReady Columbus Plan was designed and unanimously approved by the Commission to leverage the strongest resources in the CCS community to transform the ways our children learn and grow. The Digital First Learning Project is committed to carrying forward the work of the FutureReady Columbus Plan, ensuring that classrooms across the district are enhanced with state of the art teaching tools, materials and data. This unique partnership between CCS and OSU was designed collaboratively by faculty, teachers and technology innovators across K-20 education, with the support of OSU's Interim President Joe Alutto, CCS Interim Superintendent Dan Good, Mayor Michael Coleman, and Apple Education (support letters from each partner are on file and available upon request). The overarching goals of this project are to increase student achievement, reduce education spending, and invest more resources in the classroom. In order to achieve these goals we will: (1) transform curricula through the development of digital content, (2) transform teaching through professional development focused on digital pedagogy, (3) transform learning through the implementation of personalized learning environments with data analytics and intelligent scaffolding, (4) invest in the network and technology infrastructure that make these developments possible. Why are these particular changes necessary? New web and network functionalities developed during the past several years have dramatically reshaped the culture of our society. The world is becoming more participatory, more open, more sharable, and more personalized. Hundreds of millions of people, including large proportions of children in schools, publish digital content, participate in social networks, and utilize digital resources for learning. It is critical that we, as educators, leverage technology to create relevant learning experiences that mirror students' daily lives and prepare them for the future. Explosive growth in digital content, mobile learning, broadband and wireless networking, cloud computing, and adaptive environments have enabled digital learning infrastructure to become a reality. It is time for a change in our educational systems that will incorporate participatory culture and mobile technology to improve students' achievement, reduce education costs, and invest more resources in the classroom. We will outline the specific steps to achieve these goals in Question 12. The primary activities of this project include: . Development of 18-24 engaging, high-quality, fully-online courses by OSU's best teachers . Partnership with four CCS high schools and 50 additional teachers for year one pilot . Upgrading classroom technologies and wireless networks in pilot schools . Providing one-to-one technology to students, teachers and faculty in pilot schools . Training of CCS instructors in digital pedagogy and teaching with digital content . Training of CCS instructors in digital content creation . Implementation of personalized learning environment for students . Assessment of digital science labs for newly created laboratory school . Research and evaluation of the project's educational impact

12. Describe how it will meet the goal(s) selected above. - If school/district receives school improvement funds/support, include a brief explanation of how this project will advance the improvement plan.

Section 2.4 "Technology That Impacts Teaching and Learning" of the CCS District Improvement Plan states, "Use technology to impact the quality, content and structure of teaching and learning...to help students focus on 21st century skills including critical thinking and problem solving, communication and collaboration, media literacy, leadership and productivity, adaptability and accountability. Through their work, students are developing a deeper understanding of the content while acquiring skills in communication, critical thinking, information and media literacy." The Digital First Learning Project will advance the improvement plan and meet the Straight A Fund goals via four objectives: Developing Digital Content: OSU will create 18-24 General Education Courses (GECs) that will be 100% digital and online. OSU will provide this content to CCS and train teachers to incorporate this content into AP, Honors, and upper level high school courses. Access to college level content from expert faculty at OSU will enhance learning and student engagement and will allow CCS students to experience the educational rigor inherent in higher education. Providing Professional Development: CCS teachers will work with OSU faculty to build GEC content into their courses, and will learn to create, locate, and organize their own digital content for students. An expanded Innovation Center at OSU will provide a hub for CCS teachers to interact with and learn from OSU faculty and will be a resource for districts across Ohio as the project grows. Implementing Personalized Learning Environments: Technology tools allow teachers to assess their students and instantly make data-driven decisions about their personal learning paths. OSU has developed a personalized learning platform that provides instructional assistance to students as they solve problems and simultaneously adapts to learners based on their answers. This project allows OSU to broaden the scope of this platform for incorporation into CCS high school courses. Personalizing student learning is paramount to this project and will promote individualized instruction and student success. Building Technology Infrastructure: This project will provide identified CCS buildings with technology needed to create, distribute, and consume digital learning materials. The upgrade of network infrastructure and technology will allow teachers and students instant access to information and collaboration in a modern setting. Access to technology offers students the opportunity to learn practical skills needed in higher education and the professional world. These four objectives will drive success in the three Straight A Fund goals as described below: Student Achievement: This project will increase student achievement by providing GECs developed by OSU faculty and delivering these courses to students in CCS. This will allow students to hone their digital literacy skills while preparing for their future. Meeting students' learning pace while delivering relevant/current content enhances student motivation, ownership and engagement. Spending Reductions: Primary avenues for creating long term spending reductions include: reduced administrative costs, consolidation of under-enrolled /under-performing buildings and savings on paper. In addition to district savings there are tangible savings to families as students gain access to college level content, spend less time in remediation, and enter college prepared for success. Greater Share of Resources in the Classroom: This project will redefine the traditional classroom. No longer a brick and mortar space, the classroom will be defined as the place where learning occurs anywhere, anytime. Digital content and curriculum can be delivered and customized instantly to each student. By placing technology in the hands of students, this project will leverage a student-centric approach to instruction.

**C) SUSTAINABILITY - Planning for ongoing funding of the project, cost breakdown**

13. Financial Documentation - All applicants must enter or upload the following supporting information. Responses should refer to specific information in the financial documents when applicable:

a. Enter a project budget

b. Upload the Straight A Financial Impact Template forecasting the expected changes to the five-year forecast resulting from implementation of this project. If applying as a consortia or partnership, please include the five-year forecasts of each school district, community school or STEM school member for review.

c. If subsection (b) is not applicable, please explain why, in addition to how the project will demonstrate sustainability and impact.

N/A

14. What is the total cost for implementing the innovative project?

14,884,350.00 * Total project cost

* Provide a brief narrative explanation of the overall budget. The narrative should include the source and amount of other funds that may be used to support this concept (e.g., Title I funding, RttT money, local funding, foundation support, etc.), and provide details on the cost of items included in the budget (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc).

Our project budget can be divided into five categories of expenditures - infrastructure, staffing, tools, readiness, and assessment. A detailed line by line breakdown of all expenses can be found on the CCS Digital First Budget spreadsheet (available upon request). Project infrastructure expenses total $4,900,000 and include essential space transformations at both CCS and OSU. At Columbus City Schools, networking/wireless infrastructure (wires, wireless, building contractor) and classroom technology components (podiums, projectors, wireless display) for a total of 150 classrooms (4 buildings, 25 classrooms/building and rooms for 50 individual teachers) will be installed or upgraded. At Ohio State, $650,000 will be used to increase capacity of existing faculty development space to serve CCS professional development. Additionally, $200,000 of this funding will go to assessment and initial deployment of a digital science lab solution in a newly created CCS laboratory high school. Appropriate staffing will be key to our project's success. Our budget includes $2,544,000 to ensure staffing needs are met and will include: 50% appointments for 24 lead instructors to focus on content development; six FTE to expand OSU/CCS digital content production team (video, web development, programming for personalized learning environment, transcription); six team members to support the expanded faculty development space and teach CCS professional development in partnership with OSU faculty and CCS staff; and one contracted project manager to oversee infrastructure upgrades in four CCS buildings. Individuals involved with the program will need the necessary tools to engage with digital content. Our budget of $5,681,600 includes technology needs at CCS and OSU. At CCS, this includes iPads, cases, and keyboard for all impacted students (~8,500), selected teachers (~170) and staff (~50) as well as laptops for those teachers. At OSU, $105,600 of this funding will provide laptops, iPads, cases, and keyboards to 24 lead instructors and 24 support staff members. We know how important readiness is to this project's success. Budget items related to professional development, cultural change, and preparedness for teachers, students, faculty, and staff total $978,750 and include a broad range of techniques to support readiness efforts. To prepare students, families, and school communities, we have budgeted for four all-school assemblies, training sessions and community outreach meetings (iSchool initiative). To prepare CCS teachers, we have budgeted for digital pedagogy and content creation training. Finally, we know how important the support and involvement of leadership is to a project's success. We have included funds to support culture change through Getting Smart for administrators (principals and school leadership) to ensure they are fully engaged, knowledgeable, and supportive of our project efforts and desired outcomes. It is essential that we also proactively plan for the assessment of our efforts. We have budgeted $780,000 to address assessment needs. This includes program team research and development travel ($30,000), investment in 5-year research and evaluation ($600,000), and the appointment of an outside financial evaluator ($150,000). In addition to the funding requested as part of the Straight A Fund, long-term support for this project will be provided by The Ohio State University and Ohio State's Affinity Partners including Wide Open West (WOW!) and others. Ongoing costs will also be significantly offset by large scale spending reductions based on district-wide transformation through the Digital First Learning Project (detailed in number 16).

15. What **new/recurring costs** of your innovative project will continue once the grant has expired? If there are no new/recurring costs, please explain why.

1,502,000.00 * Specific amount of new/recurring cost (annual cost after project is implemented)

* Narrative explanation/rationale: Provide details on the cost of items included in the budget (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.). If there are no new/recurring costs, please explain why.

The Digital First Learning Project is designed with intensive digital production and cultural transformation as leading elements. These are pieces that we plan to invest in most extensively during the term of the grant. If additional funding were to become available, this project is designed to grow exponentially to serve additional schools in CCS and additional districts across the state. We have already been contacted by outside districts interested in participating in a year two initiative. The new and recurring costs that will emerge from this project include: . 3-year refresh of technology for students, faculty and staff in CCS: annual cost $1.86 million . 3-year refresh of technology associated with the Innovation Center: annual cost $50,000 . 5-year classroom technology refresh: annual cost $270,000 . OSU faculty digital course content production Bootcamp program: annual cost $20,000 . CCS teacher PD on digital pedagogy: 170 teachers, 5 days/year, annual cost $115,000 . OSU/CCS digital content production team: 2 FTE (including benefits) annual cost $200,000 . Innovation center staff, 1 FTE (including benefits): annual cost $100,000 . Digital Science Lab licensing: annual cost $20,000 TOTAL: $2,635,000 Long term annual OSU support for this project is $1,133,000 as described in section 17. Total new and recurring annual cost is: $1,502,000. The technology going into the hands of CCS students, faculty, and staff will need to be refreshed on a 3-year cycle to ensure that the Digital First Learning environments developed throughout this project are maintained and updated as needed. It is imperative that teachers have the tools needed to teach and the students have the tools needed to learn in today's digital society. Similarly, the technology that is part of the Innovation Center will need to be refreshed on a 3-year cycle so that professional development can continue with the necessary and relevant technology tools. Technology in classrooms will be replaced on a 5-year cycle with one building outfitted with refreshed technology in each subsequent year. Professional development and support surrounding the creation and maintenance of personalized learning environments and digital pedagogy will need to be ongoing and sustained. The expansion of the OSU/CCS digital content production team will take the form of six staff working on production for the initial 18-24 GEC courses from OSU and the production of digital content and courses with CCS teachers. This team includes videographers, a web developer, transcribing service for accessibility, and a personalized learning environment programming professional. The bulk of this work will be done in year one, but will need to be maintained and continued at a smaller scope after year one is completed. Four of the six positions in this line item will be temporary positions for the grant period, and the two additional positions will need to be full time employees working in an ongoing basis for this project. The expansion of

the Innovation Center staff will also incorporate six new staff members for this project. OSU faculty will continue to produce digital GEC content for use across the district. The focus of the Innovation Center is professional development and the facilitation of digital content creation and will also have a majority of the work falling in year one of the grant. Five of the six positions will be hired on a temporary basis for the grant period; the final position will remain to support the project in an ongoing basis. Ohio State will continue to offer its annual content creation Bootcamp, and will target one of its two annual programs to support OSU faculty creating this content. The cost of this program is approximately $20,000. Licensing for a digital science lab solution will cost approximately $20,000/yr once piloted and implemented.

16. Are there **expected savings** that may result from the implementation of the innovative project?

2,038,820.00 * Specific amount of expected savings (annual)

* Narrative explanation/rationale: Provide details on the anticipated savings (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.)

The upfront costs associated with the Digital First Learning Project will realize long-term financial benefits and savings after implementation and into future years. This project is designed to create a cultural shift within and around CCS. The first year will act as a model for reimagining learning and implementing transformative change in CCS high schools. This model will be evaluated, improved, and can then be replicated and reproduced throughout CCS as a whole. The specific savings will be realized in the following areas after year one implementation. In accordance with the Columbus Education Plan and the recommendations of the Columbus Board of Education's millage committee, the District has decentralized and continues to look for ways to reduce administrative costs. A conservative estimate of anticipated reductions over the next five years is $1,500,000. In addition, the District expects to consolidate under-enrolled/under-performing buildings which will lead to an estimated cost savings of $1,700,000 per year for a five year total of $8,500,000. Shifting to a paperless format in the 4 target schools will save an estimated $34,000 for the first year and $40,000 per year after that for a total of $194,400 over five years. The total estimated five-year reduction is $10,194,400.

17. Provide a brief explanation of how the project is self-sustaining. If there are ongoing costs associated with the project after the term of the grant, this explanation should provide details on the cost reductions that will be made that are at least equal to the amount of new/recurring costs detailed above. If there are no new/recurring costs, explain in detail how this project will sustain itself beyond the life of the grant.

As described in earlier financial sections, this project is designed to incur the vast majority of spending and project work during the term of the grant. Moving forward, there will be a shift of expertise from a paid professional model to a more community based train-the-trainer model which will allow for decreased spending, and will also allow us to incorporate the same tools we ask teachers to teach with into our own professional development strategy. OSU faculty and staff will provide professional development on digital content creation and digital pedagogy to CCS faculty and staff, who in turn will be able to deliver similar professional development to other CCS faculty and staff. Additionally, professional development training materials will be placed online as digital course modules to be accessed anytime and anyplace for future CCS teacher and staff training needs. We have a number of funding sources and additional strategies in place to address ongoing costs of this project, as outlined below: (1) CCS teacher, student and staff iPads will be part of a third party buyback program, netting $220/iPad: annual savings $648,000 (2) OSU currently offers 2-4 faculty Bootcamp trainings each year focused on content production. By reserving one of these sessions for OSU faculty producing content relevant for high school courses, this project will support faculty production of 6-8 additional online digital courses for use in CCS through this production model: annual savings $20,000 (3) OSU will allocate financial resources from the Wide Open West (WOW!) Affinity Program to maintain ongoing professional development for this project by partnering OSU faculty with CCS teachers and staff in learning partnerships: annual saving $115,000 (4) OSU will support the long-term hire of three FTE positions after year one of this project, including two production and one Innovation Center staff members: annual savings $300,000 (5) Because the Innovation Center is a space on OSU campus, run by the Office of Distance Education and eLearning, OSU is committing to support the 3-year technology refresh cycle for Innovation Center technology tools: annual savings $50,000 Total Additional Annual Savings: $1,133,000 The Digital First Learning Project will result in significant financial benefits in terms of cost reduction. However, more importantly, the project will foster a digital culture among the next generation of Ohioans, which will extend the financial impact of this project beyond education to the entire economic system of Ohio. By teaching our students and future citizens the digital tools needed to be successful in school and at work, we are contributing to a more collaborative, more efficient, more sharable, and more sustainable future for our state and for the nation.

**D) IMPLEMENTATION - Timeline, communication and contingency planning**

18. Fill in the appropriate dates and an explanation of the timeline for the successful implementation of this project. In each explanation, be sure to briefly describe the largest barriers that could derail your concept or timeline for implementation and your plan to proactively mitigate such barriers. In addition, the narrative should list the stakeholders that will be engaged during that stage of the project and describe the communication that occurred as the application was developed.

Describe the ongoing communication plan with the stakeholders as the project is implemented. (Stakeholders can include parents, community leaders, foundation support and businesses, as well as educational personnel in the affected entities.)

* Proposal Timeline Dates

Plan (MM/DD/YYYY): 01/01/2014

* Narrative explanation

PLAN: January . Advertise staff positions . Create PR plan / outreach . Design Innovation Center expansion . Outline personalized learning platform tool expansion . Issue call for participating Ohio State faculty . Issue call for participating CCS buildings, teachers . Identify research and leadership team to explore successful schools / best practices February . Select participating CCS buildings, teachers (MILESTONE) . Draft umbrella IRB approval for research . Assessment of CCS technology infrastructure and network . Assessment of mobile laboratory platforms for lab school pilot March . Technology infrastructure planning completed and approved (MILESTONE) . Horizon scan to assess Open Education Resources for textbooks In January, we will assess and outline implementation. Our largest barrier at this stage is timing. We will quickly identify participating schools and teachers, hire staff, design evaluation, and identify OSU faculty. To address this barrier, we have identified building-level partners in East HS and a new CCS lab school and have begun outreach to OSU faculty partners. We have contacted all stakeholders including: Alesia Gillison, Executive Director High School / Middle School Divisions (East HS); and Colleen Boyle (new CCS lab school); Learning Environments at OSU (classroom assessment); and OSU College of EHE (research and assessment).

Implement (MM/DD/YYYY): 01/01/2014

* Narrative explanation

January . Design project website . Research and leadership team site-visits / data-gathering . Innovation Center Expansion (MILESTONE) February . Launch project website and social media campaign (MILESTONE) . Begin content creation with OSU Faculty - first four courses underway (MILESTONE) . Interviews / video footage in participating buildings to document current state March . Begin CCS network & infrastructure development (MILESTONE) . Content creation with OSU Faculty - addlfour4 courses underway . First two video stories created to share current state / need in selected buildings (MILESTONE) . CCS & OSU Technology orders complete (MILESTONE) . Personalized learning environment customization for CCS (MILESTONE) April . Content creation with OSU Faculty - addl six courses underway . Continue CCS network and infrastructure build . Digital Pedagogy professional development trainings launch (MILESTONE) May . Content creation with OSU Faculty - addl eight courses underway . Interviews / video footage in buildings to document progress June . Second two video stories created to share progress / attitudes toward change . Content creation bootcamp with CCS faculty (MILESTONE) This phase includes network and infrastructure upgrades as well content development and PD with OSU faculty and CCS teachers. Barriers in this phase could include feasibility for infrastructure upgrade in large number of rooms and CCS teacher culture shift toward digital content production. To mitigate these barriers, we will build on the successful model for training and content production that exists at OSU and can be easily applied in this context. We will communicate closely with OSU partners and will then communicate our progress to the world through blogging, websites and social media. We are committed to telling the story of our successes and challenges as the project develops.

Summative evaluation (MM/DD/YYYY): 01/01/2014

* Narrative explanation

January . Establish project evaluation / assessment metrics . Reiterate core concepts from plan into evaluation ?February . Begin round one assessment (MILESTONE) March-June . Deliver, assess and interpret initial data (MILESTONE) The evaluation process will begin in January with the planning of assessment and will continue throughout the life of the project. Barriers around the evaluation include time requirements of creating a thorough evaluation plan and getting appropriate IRB approval for research components of the evaluation. These barriers will be mitigated by working directly with evaluation and research experts in OSU's College of Education who have a wealth of experience with educational research.

19. Describe the expected changes to the instructional and/or organizational practices in your institution.

Providing digital learning tools and resources to students and teachers in CCS will be the catalyst for various areas of change within the instructional framework of the institution. Shifting the learning to a more personalized method via technology will allow for a more immediate and nimble form of instructional delivery that is based primarily on the needs of the individual student. Developing and fostering a culture of digital learning will take the form of leading this change. Instructional content created by OSU and distributed to CCS will act as the initial step and model for this change. This project provides the opportunity for CCS teachers to work directly with OSU faculty and staff on pedagogical strategies around digital learning. The content created and provided by OSU will also act as a model for CCS teachers to create and organize their own content to meet the individual needs of their students. The integration of an personalized learning platform with the course content provided by OSU will allow CCS students and teachers to utilize assessment to make data-driven decisions regarding a student's personalized learning path. The personalized learning platform modifies to the level of the learner, so it will act as a diagnostic tool to identify areas of need and along with a student's more fully developed areas of learning. These instructional changes will be broad and have immediate, as well as lasting, effects on the teaching and learning of those teachers and students directly involved. This plan provides a scalable and sustainable solution for providing relevant, rigorous, and viable instruction to students. ??The Digital First Learning Project will also result in organizational changes based on the instructional changes implemented. Moving to a more paperless environment within CCS will directly impact organizational workflows. No longer needing to provide administrative time or funding to maintain a system of copying, printing, and acquiring paper will be a monumental change for many administrators, staff, and teachers within the schools. Currently, so much time and money is spent on maintaining services associated with the physical distribution of paper-based materials. Professional development around the utilization of technology will also be offered to administrative staff in order to foster a Digital First mentality throughout the entire organization that will help drive the movement toward a greener, paperless environment within the school system.

**E) SUBSTANTIAL IMPACT AND LASTING VALUE - Impact, evaluation and replication**

20. Describe the rationale, research or past success that supports the innovative project and its impact on student achievement, spending reduction in the five-year fiscal forecast or utilization of a greater share of

resources in the classroom.

Both research and past successes indicate that the Digital First Learning Project will have significant impact on student achievement. Digital technologies have grown exponentially in the past decade. Yet our education system still struggles to leverage technology in the creation of relevant learning experiences that mirror students' daily lives, in which they create digital content (e.g., pictures, music, videos, animations, ebooks, etc.) and share them with the world. Research in fields such as educational psychology, learning sciences, and educational technology provides scientific evidence that digital learning, when designed to reflect how people learn (Bradsford et al., 2006), not only extends learning opportunities beyond traditional classrooms, but also improves students' interest, engagement, and motivation toward learning activities (Collins & Haverson, 2009; Xie, 2013). These digital learning activities can significantly impact students' learning and success (NSF, 2008). The implementation of digital learning requires high-quality instructional design and digital content, well-supported teachers' PD, advanced learning support systems (e.g., personalized learning environment, intelligent tutoring system, and learning analytics assessment systems) and network infrastructure (e.g., broadband network, wireless access, cloud computing). OSU's investment in learning technology has shown significant impact on student achievement. In an Animal Sciences pilot, more than 90% of students agreed that technology helped them understand and connect with course content, and indicated that instructional technology made the materials and activities more interesting. In a Statistics pilot, 96% of students reported increased interest, 95% reported increased understanding of course concepts, and 94% preferred courses that used technology in the classroom. OSU's successes also indicate that the Digital First Learning Project will result in short-term and long-term spending reduction. Schools that invest in new technology for students see immediate reductions in paper, copying, and printing costs. This cost reduction creates a sustainable model for long-term implementation of technology. Since 2012, OSU's Digital First Initiative has brought significant spending reduction to OSU. An Interactive Digital Textbook authored by the OSU Theatre Department was deployed to 858 students at $24.99. The paperback version of a comparable text costs $123.99. This textbook alone saved students 80% off the traditional textbook cost, resulting in $84,900 in savings in one semester. The First Opportunity Technology Purchase Program brought $100,000 in savings to students during the first year of the initiative. Built upon the same financial framework, the proposed Digital First Learning Project will bring significant economic benefit to CCS. Third, both research and past success indicate that the Digital First Learning Project will direct a greater share of resources to classrooms. The new generation of participatory computing architectures significantly extends resource sharing within and outside of educational systems. New technologies (e.g., cloud computing, massive open online courses (MOOCs), mobile computing) create opportunities for educational resources to be more open, sharable, and accessible. OSU expanded its wireless capacity to 3 connections per seat; offered 100+ faculty technology consultations; and supported 100 faculty in "boot camps" for re-designing courses with digital technology. OSU's Digital First Initiative has seen the creation of more than 15 iBooks in use on and beyond campus, 39 public and 30 private iTunes U courses, more than 535,000 course subscriptions and more than 2,000,000 downloads. Among these, 7 have been in the top 20 globally, and 3 have reached the number one spot in the world. We believe this project will bring even more exciting opportunities to CCS, and to learners around the world.

21. Is this project able to be replicated in other districts in Ohio?

☑ Yes ☐ No

22. If so, how?

The Digital First Learning Project was designed with the capacity to be expanded to additional districts, bringing broad impact to the entire Ohio education system. First, the conceptual framework was built upon research in K12 schools. It has captured the major characteristics of K12 school systems, therefore, the same framework will apply to all the school districts and will bring similar impact. Secondly, most of the deliverables of the Digital First Learning Project are open source resources that can be shared across districts. For example, the high-quality GEC course content will be accessible to other school districts free of charge. The expansion of the Innovation Center at OSU will continue to support professional development not only for CCS teachers but for all other Ohio school districts. The personalized learning environment can be implemented into other school districts with only minor customizations supported by OSU's Office of Distance Education and eLearning. In addition, the evaluation and research findings of this proposed project will inform better design, development, and implementation of the framework in future collaboration across the state. This project initially focuses on the upper high school level courses, but can be scaled to additional courses at any level of the organization. By providing professional development to CCS teachers, staff, and administrators, this project is creating an atmosphere of Digital First learning. In subsequent years, the same professional development around digital learning can be delivered at any level, so that teachers from across academic levels, districts, and disciplines can begin to learn how to leverage digital resources, create their own digital content, and organize their materials in a functional method to meet the needs of all students. Ultimately, it is our hope that these partner educators will serve as mentors for their colleagues to further spread to role of digital learning throughout the CCS district and the state of Ohio. This model is designed to be expanded in year two and made available to a range of urban, suburban and rural districts in Ohio to enhance student engagement and create personalized learning environments to help students learn. The digital GEC content created for CCS by OSU faculty will be made available as free digital resources to schools and districts across the state, and can be used as a model for curricular and pedagogical change nationally. The implementation of this project across the state will yield significant increases in student achievement and reductions in cost and will utilize greater resources in classrooms across Ohio. Digital First Learning Project leadership has already received requests from other districts in Ohio to access the GEC content, personal learning environment platform, and professional development opportunities this project produces once they are available.

23. Describe the substantial value and lasting impact that the project hopes to achieve.

The Digital First Learning Project provides an opportunity to create a lasting shift to digital learning in CCS. By implementing and utilizing state of the art learning tools, this project provides a template for creating a digital first learning environment within high schools in CCS that is engaging and energizing for students and teachers. Faculty and staff from OSU will work closely with CCS teachers, staff, administrators, and students to develop curriculum, personalized learning platforms, and a collaborative and creative culture around teaching and learning. Over time this project will act as a model for other schools throughout CCS, Ohio, and the United States. Thoughtful planning and implementation through thorough professional development will provide a framework for student achievement that will be continually assessed and evaluated, so that it can be refined and improved over time. CCS and OSU will assess and evaluate the experience and data collected throughout the project and provide the results for publication in academic journals and for presentation at various education conferences in an effort to share an innovative and sustainable plan for developing students who have a purpose and goal surrounding their educational experience. These students will have the skills and foundational knowledge to excel in higher education, careers, and as upstanding and contributing citizens in a digital world. After this grant period has ended, CCS will have a reinvented approach to curriculum design, creation, organization, and delivery that meets the needs of every student by personalizing the learning experience. Partnering with OSU shows the commitment to excellence and to the development of every child's success - a critical need in CCS. This project will act as the catalyst for revitalizing, rebranding, and reimagining what learning is for the students of CCS. The goals of the Digital First Learning Project are to increase student achievement through an engaged digital learning environment; reduce spending by going paperless with instruction and greatly cutting the costs associated with paper, printing, and copying; and provide an increased share of resources going to the classroom in the form of digital curriculum and educational technology tools. Student achievement will be measured by the on-time graduation rates of the students in the 4 targeted high schools, quantifying the level of student engagement, and enrollment and success data surrounding students taking Advanced Placement, Honors, International Baccalaureate, or Dual Enrollment College Credit courses. Reduction in spending will be measured by capturing the cost savings from greatly reducing paper, copying, and printing usage, reducing textbook repair and replacement costs, and lowering the amount spent on software that currently in-use by CCS which will be replaced with free options throughout the plan. CCS will quantify an increase in the share of resources being directed towards the classroom by showing pre-plan spending and allocations of resources for the 4 high schools in comparison to implementation and post-plan spending and allocations around resources.

24. What are the specific benchmarks related to the fund goals identified in question 9 that the project aims to achieve in five years? Include any other anticipated outcomes of the project that you hope to achieve that may not be easily benchmarked.

OSU and CCS will work together to analyze data related to the three goals of the Straight A Fund throughout the grant period and beyond. This will take the form of CCS capturing benchmark data in regards to Advanced Placement passage rates, on-time student graduation, and increased number of graduates attending post-secondary institutions. OSU will create a systemic research protocol around improvements in student engagement, the student learning experience, and culture surrounding the schools that will be done via surveys and focus groups. All benchmarks will be focused on the 4 high schools that will take part in the implementation of the Digital First Learning program and will be measured in the 4 years post implementation. Student Achievement Benchmarks: . Increase Advanced Placement test passage rates by 5% each year (CCS is currently improving by about 3% - 19% in 2010, 21% in 2011, 24% in 2012 and 2013) . Increase in number of graduates attending post-secondary institutions at a rate of 5% each year . Increase student utilization of PSEO post-secondary enrollment by 5% each year . Increase in the number of students graduating with college credits by 5% each year . Increase the on-time graduation rate by 5% each year . Significant increase of student engagement each year . Significant increase in satisfaction surround school culture . Significant increase in student satisfaction with their educational experience Spending Reduction Benchmarks: . Reduction of paper, copying, and printing costs by 10% each year . Reduction of textbook replacement and repair by 10% each year . Reduction in the need for future new textbook adoptions Increased Share of Resources in the Classroom Benchmarks: . Implement a 1:1 computing environment for students and teachers . Implement technology infrastructure upgrades in all classrooms to accommodate a 1:1 computing environment . Provide a wide variety of digital content created by OSU and CCS faculty and staff directly to CCS students

25. Describe the plan to evaluate the impact of the concept, strategy or approaches used.

* Include the method by which progress toward short- and long-term objectives will be measured. (This section should include the types of data to be collected, the formative outputs and outcomes and the systems in place to track the program's progress).

* Include the method, process and/or procedure by which the program will modify or change the program plan if measured progress is insufficient to meet program objectives.

The evaluation component of this project includes both formative evaluation, focused on the collection and analysis of data to pinpoint specific errors and areas of improvement to ensure effectiveness and efficiency of the project, and summative evaluation, which determines the level of project success and continued extension of the project. Formative Evaluation Formative evaluation will be carried out extensively during the project period. Evaluations will be embedded in all components of the project including digital content creation, professional development, personalized learning environment, and technology infrastructure. An advisory committee will be formed to establish a monitoring system to collect evaluation data, track project progress, and ensure the quality of project design and implementation. This advisory committee will consist of the project leadership team and five consulting experts in various domains, including educational measurement and evaluation, e-learning assessment, Quality Matters, financial analysis and management, and an IT expert. The advisory committee will analyze evaluation data and recommend improvements to the project leadership team. In addition, the leadership team will meet monthly to review progress and status of the project, and conduct analyses to determine if revisions are needed. The formative evaluation will utilize techniques suggested in instructional design research including one-to-one trials, small-group evaluation, field trial, etc. (Dick, Carey, Carey, 2009). Data sources for the formative evaluation include student and teacher surveys and interviews, key stakeholder surveys and interviews, on-site observations, expert reviews, project management status reports and progress reports. In addition, we will incorporate technology-based assessment (Weiss, 2010) where data analytics will be tracked in the learning system and data will be used to diagnose students' engagement, motivation, and performance, to improve learning. Summative Evaluation At the end of the project, summative evaluation will be carried out to determine the project success in terms of students achievement, spending reduction, and classroom resources. In order to assess short- and long-term impact, the summative evaluation will collect evaluation data in a five-year period. A summative evaluation committee will be formed consisting of the project leadership team and three external evaluators, including an expert in educational evaluation, an expert in financial analysis, and an IT expert. This committee will set up a summative evaluation system including both quantitative and qualitative measures, and will analyze project data and report the results for year one. The project team will use the evaluation system to collect and analyze the evaluation data for the following four years. The summative evaluation will cover the following areas: Measuring students' achievement including quantitative and qualitative measures: . Students' engagement and motivation . Digital culture in schools . Personalized learning . Learning outcomes (e.g., AP test passage rates, ACT scores) . Principal involvement . Parent and community engagement . School report card . Teacher selectivity, quality and growth . Standards from high performance school (e.g., Increase student utilization of PSEO) Measuring cost reduction including quantitative and qualitative measures: . Cost of textbooks and instructional materials . Transportation costs for accelerated students . Costs for remediation courses or tutoring Measuring classroom resources including quantitative and qualitative measures: . Resource investment amount and percentage directly to classrooms . Technology hardware and software in classrooms . Digital content accessible in classrooms . Digital learning support accessible in classrooms . Degree to which digital learning increases shared services among districts

By virtue of applying for the Straight A Fund, all applicants agree to participate in the overall evaluation of the Straight A Fund for the duration of the evaluation timeframe. The Governing Board of the Straight A Fund

reserves the right to conduct evaluation of the plan and request additional information in the form of data, surveys, interviews, focus groups, and any other related data to the legislature, governor, and other interested parties for an overall evaluation of the Straight A Fund.

PROGRAM ASSURANCES: I agree, on behalf of this applicant agency and/or all identified partners to abide by all assurances outlined in the Assurance section of the CCIP. In the box below, enter "I Accept" and indicate your name, title, agency/organization and today's date.

I Accept - Michael Fulwider, Special Assistant to the Superintendent, Columbus City Schools, October 25, 2013