PROGRESS & INSIGHTS REPORT

HBCU
DIGITAL LEARNING INFRASTRUCTURE INITIATIVE

Co-Designing with HBCUs for the Future
of Digital Learning Innovation

WHAT'S INSIDE

COMPLETE COLLEGE AMERICA

HBCU
DIGITAL LEARNING INFRASTRUCTURE

/// **completecollege.org/hbcu-dli**

OVERVIEW

Since their founding, Historically Black Colleges and Universities (HBCUs) have proven that institutions built with Black learners at the center can lead to extraordinary results for students. According to UNCF, HBCUs represent just 3% of colleges and universities in the United States yet produce 20% of Black graduates. And they do this in the face of long odds, having to overcome systemic injustices that leave them with far fewer resources than non-HBCUs. Their success is a model for innovative, student-centered success that deserves broader recognition. But what does the future of HBCUs look like given the increasing demand for more flexible and responsive digital learning? That is the question at the center of the HBCU Digital Learning Infrastructure Initiative, a multi-year effort designed to understand the insights, opportunities, and challenges related to digital learning innovation. Digital learning infrastructure, generally speaking, is defined as the ways technology is being used to enhance all aspects of the student experience—from academics and engagement to wellness and support. In partnership with the Bill & Melinda Gates Foundation, a cohort of six HBCUs, and an Advisory Council comprised of advisors and subject matter experts from across the sectors, Complete College America has been working to co-design a strategy for future investment. The strategy will be rooted in the innovations happening on leader campuses and universities and informed by the gaps and barriers identified as a part of the process. **In the end, our focus is the same as always: college completion and student success.**

INITIATIVE GOALS

- Explore the unique approach behind HBCU success and share our findings for the betterment of higher education everywhere.

- Support the development of equitable digital learning infrastructure that meets the needs of minoritized learners in increasingly hybrid and online learning spaces.

- Co-design a long-term strategy for driving academic success among Black students at HBCUs—and extend the impact of these insights to BILPOC students at every college and university.

- Elevate new models for innovations in the midst of resource constraints and rapid change, informed by the success and resilience of HBCUs.

The vision for this initiative is to ensure technology is working for institutions—not against them—to create learning environments where Black students succeed and find purpose, momentum, structure, and support on the journey towards a degree.

METHODOLOGY & TIMELINE

Our work began in August 2021. We knew from the outset that we wanted to design a process built around equity-centered methodologies. Together with our partners, we identified three frameworks that informed the design of this initiative:

PARTICIPATORY DESIGN MODEL	SOCIAL COGNITIVE CAREER THEORY[1]	COMMUNITY CULTURAL WEALTH THEORY[2]
The co-design process adheres to a Participatory Design Model and seeks to:	An asset-based Framework comprised of:	An asset-based Framework comprised of:
■ Develop Cultural Awareness	■ Self-Efficacy	■ Aspirational Capital
■ Build Trust	■ Outcome Expectations	■ Social Capital
■ Create Meaningful Partnerships	■ Personal Goals	■ Familial Capital
■ Build Sustainability		■ Navigational Capital
■ Encourage Ownership		■ Resistant Capital
		■ Linguistic Capital

1. Developed by Dr. Tara Yosso | 2. Developed by Robert W. Lent, Steven D. Brown, and Gail Hackett in 1994

Informed by these frameworks, a research foundation was established and our team conducted interviews and focus groups from faculty, staff, students, and institutional leadership from 23 HBCUs. The DLI advisory committee provided invaluable insights, which have guided nearly a year's worth of dialogue and collaboration, advancing our co-designed strategy that will inform future investments and innovations.

AUG—DEC '21	SEP '21—ONGOING	NOV '21—APR '22	APR—JUL '22
PLANNING	**RESEARCH**	**CO-DESIGN**	**SCALING**
■ Partner Selection	■ 30+ Interviews	■ Co-Design Meetings	■ Action Workshops
■ Advisory Council	■ Document Deep-Dives	■ Campus Visits	■ Learning Discussions
■ Alignment with Bill & Melinda Gates Foundation	■ Qualitative Needs	■ President Meetings	■ Data Brief
■ Initial Data Scan	■ Initial Report	■ Working Groups	■ Communications Plan
		■ HBCU DLI Convening	■ Final Brief

CCA selected six participants from 26 applicants to take part in a first-of-its-kind Digital Learning Infrastructure (DLI) initiative. Institutions were evaluated on a number of criteria, including their track record of innovation, commitment to student success, and novel uses of technology to deliver exceptional learning and campus experiences.

Coppin State University	Langston University	Mississippi Valley State University	Virginia State University	Wiley College	Xavier University of Louisiana
Baltimore, MD	**Langston, OK**	**Itta Bena, MS**	**Petersburg, VA**	**Marshall, TX**	**New Orleans, LA**

Beyond the criteria we identified for selection, these institutions exemplify a core aspect of innovation: *driving success in the midst of constraints*. One of the institutions enrolls more students from the bottom two income quintiles as a proportion of its entire student body than all but one other four-year college in the country—evidence of its commitment to serving the students who would most benefit from a college degree. Another has the highest rate of social mobility—defined as students moving up income quintiles—among all HBCUs.[3]

3. Report: HBCUs Transforming Generations: Social Mobility Outcomes for HBCU Alumni. UNCF, 2021.

📕 WHAT WE'VE LEARNED

WHY HBCUs EXCEL

HBCUs are places where Black students thrive—this wasn't a surprise to those of us who have had the benefit of graduating from an HBCU! These incredible institutions have long outpaced predominantly White institutions with respect to Black student success. Among an overwhelming body of quantitative and anecdotal evidence, two things stood out:

HBCUs ACHIEVE MORE WITH LESS.

When you take into account levels of institutional funding, HBCUs have far higher success rates relative to available financial resources.

HBCUs ARE ASSET-BASED.

HBCUs focus on student strengths and abilities while providing support for characteristics incorrectly labeled as "risk-factors" at predominantly white institutions (PWIs).

HBCUs drive student success outcomes by creating a sense of belonging in a culturally affirming environment and providing an unparalleled level of student engagement and support. This commitment is rooted in the history of HBCUs—which were originally required to meet every student where they are given the mission of educating formerly enslaved people at the primary, secondary, and post-secondary level. It begins by ensuring students' basic needs are met. As one interviewee noted, "Wraparound services are provided from the very beginning, making sure that the students know that the entire community is there to help them along the way and to persist—*from calling students to looking for them in the dining hall*." These support services are provided "just in time", and prior to the pandemic, have largely been delivered without the use of technology.

This core insight has guided the co-design process. We've looked at all aspects of the institution— IT infrastructure, data, software and platforms, professional development, teaching and learning, advising, and campus culture—through the lens of creating a supportive, culturally-affirming environment. Our partners have reinforced the fact that a strong digital learning infrastructure across all of those domains is an essential component of deepening, expanding, and modernizing the sense of belonging that HBCUs provide. Their insights form the basis for the opportunities for investment and innovation outlined in the next section of this report.

It's also important to note that the COVID-19 pandemic and the resulting shift to remote and hybrid learning present particular challenges to the sense of belonging students experience. Digital learning innovation must center opportunities to retain that essential aspect of HBCUs. This change in the fundamental aspects of the college experience and the resulting impact on how institutions think about their work is a critical driving factor for the innovations we hope to catalyze at HBCUs.

IN THEIR OWN WORDS

❝ College [at HBCUs] is a family experience, and the entire family is included in events and activities in a way that reinforces the importance of the experience—from recruitment to onboarding to every semester along the way.

❝ Staff and faculty show up to all types of events—even those that are not directly related to the college—to make sure that students know somebody is watching and supporting them in all aspects of their lives.

❝ There is a culture of going above and beyond; it's not uncommon for faculty or staff to pitch in to get students a ticket home or to invite them over to dinner because they have nowhere to go.

STRATEGIES & OPPORTUNITIES

Increasing support for bandwidth and basic technology infrastructure is a critical starting point.

- Due to the systemic under-resourcing of HBCUs, critical tools—from broadband and WiFi to servers and devices—are often out of date and unreliable.

- Ensuring students, faculty and staff have access to reliable devices and the resources necessary to use them effectively, such as training sites and help desk support.

Software and platforms can be better integrated in order to enable the type of positive interventions that drive student success.

- Integration of different tools—from learning management to early alert systems—would allow for a holistic picture of student needs.

- Better data sharing between tools would provide richer and more consistent insights into student progress.

Improving data interoperability will enable useful, real-time insights and interventions into the student experience.

- Data sits across multiple silos and is typically used more for compliance and reporting than ongoing decision making.

- There is an opportunity to provide open data standards that facilitate insights across multiple systems and enable better governance and use of existing data.

Investing in instructional technology that enhances—not replaces—the in-person HBCU experience will connect academics to the rich cultural experience.

- Partners expressed a desire for technology that helps center culturally relevant teaching and learning.

- There is a clear need to increase proficiency with new technologies, including redesigning the way faculty are trained and supported.

Talent development for faculty and staff will be essential for an increasingly digital future.

- Partners expressed interest in inter-HBCU communities of practice along with frameworks to support growth and change management.

- Invest building the technological fluency and capacity of faculty and staff.

- Talent incubators that level-up existing HBCU leaders is a way to ensure culture and digital fluency grow in parallel.

> " I'm commuting 16 miles each way every Monday, Tuesday, and Thursday to the local McDonald's to sit in the parking lot to use their WiFi because my town doesn't have the bandwidth. I'm typing my research paper on my iPhone. I'm not asking for anything special. I'm just asking for a little compassion as we work through this.

> " ...I'm hoping we can narrow in on [wrap-around services and the student supports] because I think that is also a part of the secret sauce, the humanistic alert systems that HBCUs have to always have a touchpoint with the student.

> " In many cases, outdated systems lead to manual management of critical data tasks like enrollment syncs and grade sharing. At best, it's inefficient; at worst, individual students fall through the cracks.

> " Many faculty struggle to be engaging in their lectures in person. With virtual, the expectations are that faculty must be even more engaging. Supporting faculty on meeting this student need in the virtual space will be crucial.

> " We often expect staff to do things for which we haven't prepared them.

A DIGITAL LEARNING INFRASTRUCTURE TAXONOMY

AN EMERGING FRAMEWORK FOR INVESTMENT AND INNOVATION

Together with our partners, we have worked to develop a taxonomy that captures as many aspects of digital learning as possible. The taxonomy is both a map and a playbook. It organizes insights, opportunities, and critical information as well as provides a roadmap for institutions looking to invest and grow their digital learning infrastructure. There are four major categories, including:

- **Foundation,** which includes essential capacities needed to spark and sustain change on campuses like vision, communication, policy, and change management.

- **Institution,** with a focus on IT infrastructure, data, software, and platforms.

- **Faculty & Staff,** with the goal of providing world-class professional development and supporting critical teaching and learning functions.

- **Students,** where the core elements of support, culture, and engagement ensure students have everything they need to reach their goals.

	Category					
FOUNDATION	FOUNDATION	Vision	Policy	Communication	Planning & Change Management	Funding
INSTITUTION	IT INFRASTRUCTURE	Connectivity & Access	Devices	IT Support & Maintenance	Security & Privacy	
INSTITUTION	DATA	Standards & Metrics (PDP)	Predictive Analytics	Architectue	Governance	Interoperatibilty
INSTITUTION	SOFTWARE & PLATFORMS	Tech Stack	Technology Applications	Integration		
FACULTY & STAFF	PROFESSIONAL DEVELOPMENT	Training & On-boarding	Continuous Support	Professional Learning Communities	Talent Acquisition	
FACULTY & STAFF	TEACHING & LEARNING	Courseware	LMS	Tutoring	Academic Support	Student Engagement
STUDENTS	STUDENT SUPPORT	Alert Systems	Coaching & Advising	Wraparound & Wellness Services	Student Basic Needs	Single Information Portal
STUDENTS	CULTURE & ENGAGEMENT	Social-Emotional Connection	Campus Life	Engagement & Belonging		

As we move from planning to action, the taxonomy will grow to include shared definitions, insights, tools, best practices, and exemplars from across the HBCU landscape. These resources will guide practitioners as they steward investment and innovation.

EQUITY IMPLICATIONS

HBCUs are at varying levels of readiness with regards to digital learning infrastructure, which positions them differently to be able to engage in future work. This initiative is committed to propelling institutions that have been left behind and who have fewer available resources, an approach that ensures we do not deepen existing inequities by focusing on institutions who have made more progress at this point. Our goal is for ongoing work to focus on building the capacity of institutions to participate in future investments through incubators or pipeline investments that facilitate institutional growth within the areas outlined by the taxonomy. We imagine four distinct phases of development for institutions:

1. DISCOVERY	▶	2. EMERGENCE	▶	3. SCALING	▶	4. SUSTAINABILITY

⚑ WHAT'S NEXT

INNOVATION PRIORITIES

Complete College America—alongside our co-design partners and the Bill & Melinda Gates Foundation—is exploring three priorities emerging from this work.

STUDENT PORTAL: A Single Place for Technology Needs	DATA PLATFORM: A Complete Picture to Support Student Success	TALENT DEVELOPMENT: A Community of Practice for HBCU Leaders, Staff & Faculty
A single sign-on portal to access course material, student support services, admissions information, financial systems, and co-curricular activity information is essential to increasing student engagement and success.	There is a clear need to provide a cloud-based, open-sourced, interoperable data warehouse and reporting tools for holistic, predictive analytics on student success and engagement.	Opportunity to cultivate a shared learning and practice community across HBCUs where teams can access support as they strengthen and deepen digital learning practice.
Features:	Features:	Features:
■ Be built by and for HBCUs	■ Best-in-class analytics on student performance and engagement	■ Center technology adoption and data fluency
■ Have its common interface built with mobile-first design	■ Data dictionary and HBCU benchmarking	■ Look for ways to provide shared services to reduce cost and drive scale
■ Connect classrooms, academic tracking, financial aid, advising, counseling, and student engagement efforts	■ Divide, conquer, and share development	■ Share existing resources and identify caps where collaboration can solve shared challenges
■ Feature backend integration to simplify management	■ Remove point-to-point solutions	■ Adapt training to unique needs of each institution and context

We will be working with co-design partners in the coming months to refine these priorities and articulate a long-term strategy to develop digital learning infrastructure at HBCUs. In addition to these priorities for innovation, we are exploring additional work streams that will enable this work to scale, including:

■ Using common completion metrics and developing quality measures of student engagement

■ Aligning with the Postsecondary Data Partnership

■ Cultivating HBCU talent to serve as national experts

■ Launching a communications effort to highlight this initiative and its findings

■ Build a framework with common definitions and metrics for measurement and evaluation

■ Aligning state and federal policy with investments for sustainability

■ Providing training focused on institutional investment

■ Deepening our framework for providing equitable support across all HBCUs

#HBCUDIGITALSUCCESS

completecollege.org

🐦 @CompleteCollege | 🔗 Complete College America

STAY ENGAGED

This work is not possible without the insight and expertise of the institutional leaders, staff, and faculty who do this work each day in service to students. We hope you'll continue to follow this work and stay tuned for opportunities to engage with these strategies.

APPENDIX

DIGITAL LEARNING INFRASTRUCTURE TAXONOMY

FOUNDATION	Vision	Policy	Communication	Planning & Change Management	Funding
IT INFRASTRUCTURE	Connectivity & Access	Devices	IT Support & Maintenance	Security & Privacy	Interoperatibility
DATA	Standards & Metrics (PDP)	Predictive Analytics	Architectue	Governance	
SOFTWARE & PLATFORMS	Tech Stack	Technology Applications	Integration		
PROFESSIONAL DEVELOPMENT	Training & On-boarding	Continuous Support	Professional Learning Communities	Talent Acquisition	
TEACHING & LEARNING	Courseware	LMS	Tutoring	Academic Support	Student Engagement
STUDENT SUPPORT	Alert Systems	Coaching & Advising	Wraparound & Wellness Services	Student Basic Needs	Single Information Portal
CULTURE & ENGAGEMENT	Social-Emotional Connection	Campus Life	Engagement & Belonging		

Group labels:
- FOUNDATION
- INSTITUTION
- FACULTY & STAFF
- STUDENTS