

Department of Educational Technology, New Jersey City University

Doctorate in Educational Technology Leadership

EDTC 814 Advanced Effective Models of E-Learning

Project #3: Leadership Vision and E-Learning Plan

Sedar Fred Pougaza

Introduction

The integration of technology into education has revolutionized the learning landscape, and institutions such as New Jersey City University (NJCU) are leading this transformation. Our vision at NJCU is to be a global leader in innovative and accessible education by empowering learners to achieve their full potential through transformative e-learning experiences. Our vision emphasizes innovation, accessibility, learner-centricity, and global impact in this digital age. This proposal outlines a vision for E-learning at NJCU, presents a comprehensive technology plan to support this vision, and requests funding to initiate key components. E-learning means electronic learning. E-learning is the alternative of traditional education and it can also be a complementary to it (Kumar Basak et al., 2018). According to Kumar Basak et al. (2018) E-learning is “the learning supported by digital electronic tools and media.” “E-learning is about using technology to support and augment learning, not replacing traditional methods” (Laurillard, 2002). Following Laurillard (2002), “E-learning should foster interaction between learners and instructors, as well as among learners themselves.” Furthermore, E-learning refers to the process of teaching and learning supported by electronic technologies. It includes a variety of methods and applications such as online learning, computer-based training, virtual classrooms, and blended learning approaches. Key characteristics of E-learning are flexibility (Learners can access educational materials at their own pace and convenience), interactivity (Learners can interact with content and instructors using a range of digital tools), and accessibility (E-learning can reach a wider audience, including individuals with disabilities or those in remote areas). When we look at the statistics of enrollment of students taking exclusively distance courses, there were in excess of 2.8 million students taking all of their higher education instruction at a distance in fall of 2014. Almost half (1,382,872, or 48%) of those students learning exclusively

at a distance did so at a public institution (Allen & Seaman, 2016). According to Allen & Seaman (2016), there is evidence that distance education enrollments continue to grow, even in the face of declining overall higher education enrollments.

In this proposal, specific details such as budget allocations, timelines, and evaluation metrics are tailored to the needs, constraints and available resources of New Jersey City University. By adopting innovative e-learning strategies, New Jersey City University can enhance student engagement, accessibility, and success, positioning itself as a leader in higher education.

Vision for E-Learning at New Jersey City University

A vision is a clear, inspiring picture of what an organization (New Jersey City University, for instance) wants to achieve in the future. It serves as guiding star directing efforts and decisions towards a common goal. It is future-oriented, aspirational, and often expressed in broad and overarching terms.

Our vision at NJCU is inspiring (it evokes passion and enthusiasm among stakeholders), clear (it is easy to understand and communicate), future-oriented (it focuses on the desired end state), and aligned with institutional values (it reflects NJCU's core beliefs and principles). Our vision for e-learning at New Jersey City University is to establish a flexible, accessible, and engaging learning environment that empowers students to reach their full potential. Through strategic technology integration, NJCU aims to cultivate a culture of innovation, collaboration, and lifelong learning. This E-learning ecosystem will feature:

- **Student-Centered Learning:** It refers to personalized learning experiences tailored to diverse student needs and learning styles at NJCU. According to Laurillard (2002),

E-learning should prioritize the learner's needs and preferences. We define our target by clearly identifying the learners at NJCU, their characteristics, and their existing knowledge (Brown & Green, 2023, p. 32)

- Faculty Development: We will offer a comprehensive support for faculty to develop and deliver high-quality online and blended courses at NJCU.
- Technology Infrastructure: A robust, secure technological infrastructure that ensures seamless learning experiences at NJCU. Technology should be used to enhance learning, not replace traditional methods (Laurillard, 2002). We seek to utilize technology is the most effective and efficient way by integrating it to enhance learning and accessibility at New Jersey City University in the digital age (Brown & Green, 2023, p. 90)
- Accessibility: Equitable access to technology and online resources for all students, regardless of background or circumstances. This allows for community building because it fosters collaboration and knowledge sharing among learners (Rosenberg, 2001).
- Data-Driven Decision Making: Using data to inform instructional practices, resource allocation, and program evaluation.

Technology Plan

To achieve our vision of e-learning, the following technology initiatives are proposed:

- Learning Management System (LMS) Enhancement: We plan to upgrade the LMS to include advanced features such as adaptive learning, AI-powered tutoring, and mobile optimization. We will be implementing a Personalized Learning Dashboard by utilizing Artificial Intelligence (AI) and data analytics. A LMS can generate a customized

dashboard for each user while displaying pertinent content, assignments, and progress updates. This approach supports personalized learning and can significantly boost user engagement (Ruiz-Primo & Furst, 2017).

Furthermore, for functionality enhancements, we plan on integrating Artificial Intelligence (AI) for intelligent tutoring systems because AI-driven tutoring systems within the LMS can deliver real-time feedback, answer student inquiries, and provide tailored guidance, thereby enhancing learning outcomes (Brusilovsky, 2016). AI integration in higher education has transformative potential for enhancing teaching efficiency by optimizing instructional practices (Chassignol et al., 2018).

Additionally, we plan on adopting a Cloud-Based Learning Management System because this can enhance accessibility, scalability, and cost-effectiveness while providing a more flexible learning environment (Means et al., 2010).

- **Online Course Development:** We will be offering comprehensive faculty development programs on instructional design, online pedagogy, and the use of technology-enhanced learning activities. These faculty development programs will equip our faculty who are also online instructors to assume correctly their five different roles: Facilitator, Course Designer, Content Manager, Subject Matter Expert, and Mentor (Martin et al., 2019).
- **Technology Infrastructure:** We plan to invest in high-speed internet access, digital devices (examples of tablets, laptops, desktop computers, e-readers, gaming consoles, virtual reality (VR) headsets ~ immersive devices that create a virtual environment, augmented reality (AR) devices ~ overlay digital information onto the real world, smart speakers ~

voice-activated devices that can perform various tasks), and technical support to ensure seamless access to online resources.

- **Accessibility Tools:** We will integrate assistive technologies and universal design principles into all online courses and platforms. Assistive technologies (AT) are tools, equipment, or systems that enhance the capabilities of individuals with disabilities. We plan on acquiring low-tech assistive technologies such as magnifiers that can be handheld or electronic and enlarge text or images for individuals with low vision. Also, braille embossers, which are devices that convert digital text into braille for individuals who are blind or visually impaired. Additionally, we will be getting high-tech assistive technologies such as screen readers (software applications that convert text on a computer screen into speech or braille for individuals with visual impairments), speech-to-text software (a technology that converts spoken language into written text benefiting individuals with physical disabilities or learning differences), and augmentative and alternative communication (AAC) devices (devices that help individuals with communication difficulties to express themselves).

Since our specific area is education, we will also acquire assistive technology such as text-to-speech software, speech recognition software, and assistive listening devices that can support students with disabilities. However, NJCU is also a workplace and we plan on purchasing ergonomic keyboards, voice recognition software, and screen magnification software that can help employees with disabilities.

- **Data Analytics and Visualization:** We will implement data analytics tools to track student performance, identify learning patterns, and inform instructional decisions. We need to buy data analysis and visualization tools such as statistical software (SPSS, SAS, R,

Python with libraries like NumPy, Pandas, Matplotlib, Seaborn, Atlas.ti, Microsoft Excel (Current Version), and Qualtrics), Business Intelligence and Data Visualization Tools (Tableau, for instance), Machine Learning Platforms (TensorFlow, PyTorch, and Scikit-learn for example).

Effective change management strategies are needed to handle the transition period with our technology initiatives. This involves clear communication, support systems, and addressing resistance to change. According to the prominent figure in educational technology leadership Laura Zieger, when you change what you believe you change where you go. Change happens and we need to adapt to change. Leaders are the catalysts for change. As an effective leader with growth through shared responsibility (Shared responsibility means also collective responsibility) leadership Philosophy, we strive to create a work environment that is supportive, innovative, and where everyone feels included. By being flexible, versatile, and choosing what works best, we can handle the challenges of making our plan successful and leading in today's world, all while staying true to what we believe is important.

Funding Proposal

To launch our essential e-learning initiatives, a funding request of \$2,500,000 is proposed. The allocation of these funds will be:

- Learning Management System (LMS) Enhancement: 35% (\$875,000) for acquiring new LMS features and faculty training.
- Faculty Development: 25% (\$625,000) for supporting faculty development programs and stipends.

- Technology Infrastructure: 25% (\$625,000) for upgrading network infrastructure, purchasing digital devices, and hiring technical support staff.
- Accessibility Tools: 10% (\$250,000) for acquiring and implementing assistive technologies and providing accessibility training.
- Data Analytics: 5% (\$125,000) for purchasing data analytics software and training faculty and staff.

We pay particular attention to aspects of assessment and measurement in our essential e-learning initiatives. The success of the e-learning initiative at NJCU will be evaluated through a mix of quantitative and qualitative measures:

- Student Outcomes: We will track performance metrics such as retention, graduation rates, and academic achievement. Student satisfaction, course completion rates, and learning outcomes are the key performance indicators that we will use to evaluate the success of the e-learning initiative at our institution.
- Faculty Satisfaction: We will conduct surveys to measure faculty satisfaction with e-learning tools and resources.
- Technology Utilization: We will analyze Learning Management System usage data to assess the adoption of technology-enhanced teaching practices.
- Accessibility: We will evaluate the effectiveness of accessibility tools in supporting students with disabilities.
- Return on Investment (ROI): We will calculate the economic benefits of the e-learning initiative, such as cost savings and increased student enrollment.

Securing funding for NJCU's comprehensive e-learning initiative requires a multifaceted approach.

Some Potential Funding Sources

1. Institutional Budget Re-allocation

- **Justification:** Highlight the long-term cost-effectiveness of e-learning, such as increased student retention and graduation rates, along with reduced operational costs.
- **Steps:** Perform a thorough cost-benefit analysis, identify areas for budget reallocation, and present a compelling case to the university administration.

2. Grants

- **Justification:** Emphasize the alignment of the e-learning initiative with grant priorities, such as student success, equity, and technological innovation.
- **Steps:** Identify potential grant funders, develop strong grant proposals, and build partnerships with other institutions or organizations.

3. Public-Private Partnerships

- **Justification:** Illustrate the mutual benefits of collaboration, such as increased visibility, community engagement, and shared resources.
- **Steps:** Identify potential partners, negotiate agreements, and develop joint projects.

4. Strategic Use of Tuition Revenue

- **Justification:** Show how investing in e-learning can enhance the student experience, leading to increased satisfaction and enrollment.
- **Steps:** Conduct market research, analyze tuition trends, and develop a clear communication plan to explain how tuition funds will be utilized.

Convincing Stakeholders of the Value

- **Data-Driven Approach:** Present compelling data on the impact of e-learning on student success including improved graduation rates, higher GPAs, and better job placement.
- **Cost-Benefit Analysis:** Demonstrate the long-term financial benefits of e-learning, such as reduced operational costs and increased revenue through expanded enrollment.
- **Alignment with Institutional Goals:** Clearly explain how the e-learning initiative supports the university's mission, vision, and strategic plan.
- **Student and Faculty Testimonials:** Share success stories and positive feedback from students and faculty who have benefited from e-learning experiences.

Conclusion

Our vision at New Jersey City University (NJCU) is to establish ourselves as a leading metropolitan university by providing innovative, accessible, and high-quality e-learning experiences that empower our students to excel in a globalized world. By investing in e-learning, NJCU can create a dynamic and inclusive learning environment that prepares students for success in the 21st century.

The proposed technology plan and funding request provide a roadmap for achieving our vision. Through careful planning, implementation, and evaluation, NJCU can become a leader in online and blended learning. Measuring the impact of our initiative on student outcomes, faculty satisfaction, and institutional efficiency will demonstrate the value of this investment and inform future strategies. Consistent data analysis will guide us in making necessary adjustments and improvements.

References

Allen, E. and Seaman, J. (2016) Online Report Card: Tracking Online Education in the United States.

American Speech-Language-Hearing Association. (n.d.). Augmentative and alternative communication

(AAC). <https://www.asha.org/public/speech/disorders/aac/>

American Foundation for the Blind. (n.d.). Low vision aids and devices. <https://www.afb.org/>

Brown, A., & Green, T. (2023). *The essentials of instructional design: Connecting fundamental principles*

with process and practice. Routledge.

Brusilovsky, P. (2016). *Adaptive hypermedia: User modeling, adaptation, and personalization*. *User*

Modeling and User-Adapted Interaction, 26(1-2), 1-25. doi:10.1007/s11257-016-9145-y

Chassignol, M., Aleksandr Khoroshavin, A., Klimova, A., Bilyatdinova, A. (2018). Artificial Intelligence

trends in education: a narrative overview. *Procedia Computer Science*, Volume 136, Pages 16-24,

ISSN 1877-0509, <https://doi.org/10.1016/j.procs.2018.08.233>.

(<https://www.sciencedirect.com/science/article/pii/S1877050918315382>)

Field, A. (2013). *Discovering statistics using R*. Sage.

Hastie, T., Tibshirani, R., & Friedman, J. (2009). *The elements of statistical learning: Data mining,*

inference, and prediction. Springer Science & Business Media.

Kumar Basak, S., Wotto, M., & Bélanger, P. (2018). *E-learning, M-learning and D-learning: Conceptual*

definition and comparative analysis. E-Learning and Digital Media, 15(4), 191-216.

<https://doi.org/10.1177/2042753018785180>

Laurillard, D. (2002). *Rethinking university teaching: A framework for the effective use of technology*.

Routledge.

Martin, F., Budhrani, K., Kumar, S., & Ritzhaupt, A. (2019). *Award-winning faculty online teaching practices: Roles and competencies*. Online Learning, 23(1), 184-205.

doi:10.24059/olj.v23i1.1329

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2010). *Evaluation of evidence-based practices*

in online learning: A meta-analysis and review of online learning studies. U.S. Department of Education.

Microsoft. (n.d.). Speech to text.

<https://support.microsoft.com/en-us/office/dictate-your-documents-in-word-3876e05f-3fcc-418f-b8ab-db7ce0d11d3c>

National Federation of the Blind. (n.d.). Braille technology.

<https://nfb.org/braille-and-technology>

Rosenberg, M. J. (2001). *E-learning: Strategies for delivering knowledge in an electronic age*.

McGraw-

Hill.

Ruiz-Primo, M. A., & Furst, E. J. (2017). *Personalized learning: A review of the literature*.

Review of

Educational Research, 87(4), 881-924. doi:10.3102/0034654317703363

WebAIM. (n.d.). Screen readers. <https://axesslab.com/what-is-a-screen-reader/>