THE ROLE OF DIGITAL BADGING IN BUSINESS ANALYTICS EDUCATION

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ABSTRACT

Digital badging/microcredentialing is gaining momentum in higher education as colleges and universities adopt innovative practices to augment and extend the traditional transcripts to certify and communicate student competencies and achievements to prospective employers. The purpose of digital badges may vary from recognizing student engagement in a learning activity to certifying the achievement of specific skills and competencies (Dowling-Hetherington and Glowatz, 2017). Digital credentials are integral for transforming the future of higher education generally, and in business schools specifically, with the potential for enhancing student mobility and career success (Choudaha, 2019). According to an AACSB research report based on a study to understand how business schools can adapt for the digital generation, digital badges are gaining credibility and interest, with 90 percent of respondents reporting some value as a substitute or complement to degree and/or non-degree education (AACSB, 2018). Further, industry hiring practices will increasingly depend on digital searches for job candidates, and alternative digital credentials will make those competencies easier to discover (BizEd, 2019). This will help badge users as they seek to have their badges recognized beyond college walls and in professional settings (Stefaniak and Carey, 2019).

Recent articles have continued to highlight the importance of digital badging/microcredentialing in higher education. For example, an article about the unbundling of business education in the form of microcredentials points out that the emergence of microcredentials reflects learners' search for a more efficient educational model to address changing market needs, including as a result of the pandemic (Vanhonacker, 2021). Marcus (2020) writes that the urgency of getting people back to work gives new momentum to microcredentials as people seek educational opportunities that help develop skills needed to find jobs. A recent AACSB briefing paper notes that a growing interest in microcredentials among organizations presents an opportunity for business schools to think innovatively about skill development opportunities for individuals throughout their lifelong learning journeys. Further, COVID-19 has prompted some people to reskill, and microcredentials, with their low barrier to entry, provide easy access to the requisite learning opportunities (AACSB, 2021a). In July 2021, AACSB partnered with CMS Wire on a Future of Microcredentialing survey, in which 97% of responding organizations said that providing microcredentials for attaining business concepts or skills would be either very useful or moderately useful (AACSB, 2021b).

While digital badges/microcredentials span a wide spectrum of competency topics, this presentation will focus on the role of digital badging in business analytics education. The presentation's context is College of Business Administration at a large public university. With the goal of expanding and communicating the range and impact of academic and co-curricular activities that promote experiential learning and career readiness to internal and external stakeholders, the College is exploring the integration of e-Portfolios with

digital badges into the business curriculum. e-Portfolios, an AAC&U's designated high-impact practice that promotes deeper learning, fosters the integration and communication of learning across various educational experiences (Kuh and Kinzie, 2018). To this end, the College partnered with a social networking vendor, Portfolium, to provide students with a platform for demonstrating their career-ready competencies, acquired inside and outside of the classroom, through achievement and competency badges. While achievement badges certify the completion of one or more learning activities (e.g., attending a workshop or a campus events), the competency badge certifies a demonstrated learning outcome or skill that has been authentically assessed (Portfolium, 2018). The College is in the early stages of implementation of digital badges, and has piloted a Leadership Badge in its First-Year Experience course for a freshmen cohort. Other areas being explored for digital badging initiatives include competencies and skills in business analytics.

This exploratory study will review examples of digital badging in business analytics education. For example, the Kelley School of Business at Indiana University has an Executive Education Digital Badge Program (Indiana University, 2021) on predictive analytics for business applications, introducing students to a variety of analytics techniques and software tools. Students complete weekly quizzes to demonstrate mastery of the subject matter and to qualify for the badge. Students who pass an exam after completing the program earn credits that may be applied towards a Business Analytics Graduate Certificate.

Other examples of digital badging in business analytics include: The Questrom School of Business at Boston University has digital badges for two business analytics competencies: Business Analytics Foundations; and Data Characteristics and Data Mechanics (Boston University, 2021). The University of California Irvine has digital badges in Python Programming and in Advanced Data Topics (University of California Irvine, 2021). The University of Central Oklahoma (UCO) developed a Student Transformative Learning Record (STLR) system to map the competencies for its digital credentialling and badging initiative. Another example is of an industry-academic partnership to provide digital badges in analytics. Leaser et al (2020) describes a partnership between IBM and Northeastern University that articulates technology industry credentials for academic credit. Such credentials provide greater equity and access to higher education, especially for adult learners. According to research conducted by the Council for Adult and Experiential Learning, the credentials that award credit for prior learning (CPL) are associated with better student outcomes for degree completion as well as the cost and time savings (CAEL, 2020). They also help address equity gaps in postsecondary achievement by boosting completion rates for low-income and students of color.

The goal of our presentation is to provide the context for digital badging in higher education, focus on the role of digital badging in business analytics education in particular, and describe early planning efforts to introduce digital badges related to analytics in our college.

Keywords: Business Analytics, Digital Badging, Microcredentialing, Innovative Education

[1] AACSB (2018). "Study Shows Business Schools Must Adapt for Digital Generation", *AACSB International*, March 2018, available at https://www.aacsb.edu/newsroom/2018/3/study-shows-business-schools-must-adapt-for-digital-generation.

[2] AACSB (2021a). "Microcredentials: Connecting Business Schools and Business Through Lifelong Learning, *AACSB Briefing Paper*, August 2021, available at https://aacsb.edu/publications/researchreports/microcredentials.

[3] AACSB (2021 b). "Fulfilling Organizational Talent Needs Through Microcredentials", *AACSB Data Report*, available at https://aacsb.edu/publications/researchreports/microcredentials.

[4] BizEd (2019). "The Disruptive Power of Digital Credentials", *BizEd Magazine*, May 2019.

[5] Boston University (2021). "Digital Business Analytics", *Questrom School of Business*, available at https://www.bu.edu/questrom/executive-education/digital/questrom-digital-topics/digital-business-analytics/.

[6] Choudaha, R. (2019). "How Digital Credentials Can Advance Student Mobility and Success", *AACSB International*, May 2019, available at https://www.aacsb.edu/blog/2019/may/how-digital-credentials-can-advance-student-mobility-and-success.

[7] The Council for Adult and Experiential Learning (2020). "New Research from CAEL and WICHE on Prior Learning Assessment and Adult Student Outcomes", available at https://www.cael.org/news-and-resources/new-research-from-cael-and-wiche-on-prior-learning-assessment-and-adult-student-outcomes

[8] Dowling-Hetherington, L. and Glowatz, M. (2017). "The Usefulness of Digital Badges in Higher Education: Exploring the Students' Perspectives", *Irish Journal of Academic Practice*: Vol. 6: Iss. 1, Article 1.

[9] Indiana University (2021). "Digital Badges: Predictive Analytics for Business Applications", *Kelley School of Business*, available at https://kelley.iu.edu/programs/executive-education/programs-for-individuals/digital-badges/predictive-analytics.html.

[10] Leaser, D., Jona, K., and Gallagher, S. (2020). "Connecting Workplace Learning and Academic Credentials via Digital Badges", in *Credentials for a New Era of Work and Learning, Wiley*: Vol. 20, Iss. 189, pp 39-51.

[11] Kuh, G. and Kinzie, J. (2018). "What Really Makes a 'High-Impact' Practice High Impact?", Inside HigherEd, May 1, available at https://www.insidehighered.com/views/2018/05/01/kuh-and-kinzie-respond-essay-questioning-high-impact-practices-opinion

[12] Marcus, J. (2020). "More students start earning stackable credentials on their way to degrees", *The Hechinger Report*, June 2020, available at https://hechingerreport.org/more-students-start-earning-stackable-credentials-on-their-way-to-degrees/.

[13] Portfolium (2018). "Digital Badging in Education", *Portfolium*, 2018.

[14] Stefaniak, J., and Carey, K. (2019). "Instilling Purpose and Value in the Implementation of Digital Badges in Higher Education", International Journal of Educational Technology in Higher Education, 16, 44.

[15] University of California, Irvine (2021). "Alternative Digital Credentials", *UCI Division of Continuing Education*, available at https://ce.uci.edu/resources/academic/badges/.

[16] University of Central Oklahoma (2021). "Student Transformative Learning Record", available at https://www.uco.edu/student-resources/files/cdc/stlrmetromap.pdf

[17] Vanhonacker, W. (2021). "The Unbundling of Business Education", *AACSB Insights*, September 2021, available at https://aacsb.edu/insights/2021/september/the-unbundling-of-business-education.