Chapter 63
Public Administration Curriculum-Based Big Data Policy-Analytic Epistemology: Symbolic IoT Action-Learning Solution Model

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ABSTRACT

The equilibration that underscores the internet of things (IoT) and big data analytics (BDA) cannot be underestimated at the behest of real-life social challenges and significant policy data generated to redress the concerns of epistemic communities, such as political policy actors, stakeholders, and the citizenry. The cognitive balancing of new information gathered by BDA and assimilated across the IoT is at the crossroads of ascertaining how the growing increases of such BDA can be better managed to transition from the big data state of disequilibration to reach a more stable equilibrium of policy data usefulness. In the quest for explicating the equilibration of policy data usefulness, an account of the curriculum-based MPA policy analysis and analytics concentration program at Norwich University is described as a case example of big data policy-analytic epistemology. The case study offers a symbolic ideology of an IoT action-learning solution model as a recommendation for fostering the stable equilibration of policy data usefulness.

ORGANIZATION BACKGROUND

This section provides an introductory viewpoint of the background on the case history of the organization underscoring the experiential learning context of the curriculum-based Master of Public Administration (MPA) Policy Analysis and Analytics (PAA) concentration program at Norwich University (NU). Since

DOI: 10.4018/978-1-6684-3662-2.ch063

its inception in 1819, NU, founded by Captain Alden Partridge, a former United States Military Academy Superintendent, has remained well-committed to the philosophy of experiential learning for preparation of traditional-age and nontraditional-age students in a Corps of Cadets and as civilians to advance future societal leadership, service professionalism, and business industries (Norwich University, 2014a). Building upon the works of Dewey, Lewin, and Piaget, Kolb (1984) made a significant contribution to the experiential learning theorization model. According to Kolb, experiential learning fosters the creation of knowledge through critical thinking and persistent adaptation to community engagement, as can be attested to or derived by the process of concrete experience, and also modified by reflective learning, conceptual evaluation, and active investigation (Bergsteiner, Avery, & Neumann, 2010; Kolb, 1984).

By simplifying Kolb's theorization, the experiential learning model has been conceptualized as "an experience or problem situation; a reflective phase in which the learner examines the experience and creates learning from his/her reflection; and an application phase in which the new knowledge or skills are applied to a new problem or situation" (National Institute of Food and Agriculture, 2017, p. 1). As a coeducational institution of experiential learning pedagogy and andragogy in Northfield, Vermont, as well as one of America's six senior military institutions of higher learning and the initiation of the Reserve Officers' Training Corps (ROTC), NU offers various traditional learning and distance-learning baccalaureate and graduate degree programs to approximately 3,500 students (Norwich University, 2015).

Recognizing its enormous contribution to the ROTC, along with its training of military officers and non-military learners for various careers in the business enterprise, government agencies, and military service, as well as for the pursuit of academic degrees, NU has evolved in many significant ways over its almost 200 years. In 2014, it began the *Forging the Future* initiative in preparation for its bicentennial celebration in 2019 (Norwich University, 2010, 2014a). This five-year campaign for the bicentennial celebration is geared toward fostering an increased level of innovative learning atmosphere through high-tech pedagogical and restructuring of top-notch facilities to contribute to the university's vitality of service innovation to the nation (Norwich University, 2014a).

In keeping with the *Forging the Future* campaign initiatives and in alignment with its mission mandate, NU's College of Graduate and Continuing Studies (CGCS) has resoundingly remained more committed to providing lifelong learners with dynamic experiential learning model. This dynamic experiential learning paradigm is structured on the balance between learners' real-life challenges and the application of:

- A collaborative action-learning model;
- Action research modalities;
- Knowledge and process management protocols;
- Public service leadership via the traditional face-to-face teaching/learning model and the open and distance learning (ODL) framework of fostering pragmatic learning (Norwich University, 2014b).

Accredited by the New England Association of Schools and Colleges, the University's Board of Trustees adopted its mission mandate as:

To give our youth an education that shall be American in its character–to enable them to act as well as to think–to execute as well as to conceive–'to tolerate all opinions when reason is left free to combat them' – to make moral, patriotic, efficient, and useful citizens, and to qualify them for all those high responsibilities resting upon a citizen in this free republic. (Norwich University, 2010, p. 22)