Reflections on Perspectives on Global Issues Workshop May 11-18, 2018 Otzenhausen, Germany Jim Wright September 10, 2018

Several major outcomes came from the week-long workshop at the European Academy of Otzenhausen (EAO), Germany. The multiple themes of integrating technology, increasing sustainable practices, and promoting diversity through global engagement made the strongest impression. The first major outcome of the workshop was meeting new colleagues, discovering new thinking, and learning innovative pedagogy about reducing our dependence on fossil fuels. Many people work in silos across the two campuses; thus, one of the most valuable results of the workshop was building collegiality and getting to know different faculty members from both campuses.

Getting to know more people across the University is important, but there are other tangible outcomes of the workshop. Currently, I teach in a doctoral program designed to prepare Chief Technology Officers (CTO) and Chief Information Officers (CIO) for school systems and educational organizations. Technology leaders are required to design and implement strategic planning and manage the infrastructure with dwindling resources. My role is to facilitate the growth and development of technology leaders through exploration and discovery. For example, how do technology leaders balance the increased demand for access to digital resources while reducing their carbon footprint? Understanding new models and methods to handle these competing positions is the core of sustainability, and a primary theme of the multiple presentations and field trips at the European Academy.

Therefore, as a result of this workshop, I am designing two online learning modules that explore the challenges and benefits of sustainable practices to improve an organization's technology infrastructure. Based on the information gathered in Germany, the learning modules and new content will be added to the following doctoral courses: *ITEC 8520 Supporting Technology Infrastructure in Schools and Districts*, and *ITEC 8570 Managing Data Systems in Schools and Districts*.

Tightly aligned with Kennesaw State University's globalization efforts, my goal is to produce graduates who have a broad, multi-cultural perspective that promotes equity. Equity and cooperation were major themes during the workshop. Thus, the modules include information on

building intercultural competencies (Bennett, 1993). More importantly, possessing a deeper understanding of the innovative practices of sustainability will broaden the knowledge base of my students and create stronger technology leaders for school districts.

Stewardship of limited resources requires strategic thinking and planning. The information garnered from this workshop transformed my own teaching and assist future school technology leaders. More importantly, proper stewardship and sustainable practices directly impact our children's future. This is the most important outcome of my participation in this once in a lifetime learning experience.

In addition to learning new techniques about sustainability, the workshop expanded my own thinking about power consumption, harnessing alternative sources of electricity, virtual and distributed computing, and green computing. Furthermore, leveraging the knowledge and skills learned from the workshop serves as the foundation for learning modules that are topical, practical, and challenging.

Although, the learning modules are in the formative stages, the modules will address the following questions and concerns. For example, what are the short term and long term total costs of moving to green technologies? What are the total costs of ownership (TCO) of a sustainable infrastructure? Is it possible to run a hybrid environment of legacy technologies with green technologies? What is the impact on the carbon footprint of *cloud* delivered services versus traditional district owned client-server technologies? What are the considerations of power consumption with load balancing in a server farm? What are the costs and benefits of alternative sources of electric power from wind, solar, natural gas, fuel cells, batteries, and traditional diesel generators?

Collectively, these questions serve as the foundation of the learning modules and guide the transformative learning experience. The instructional modules will align to the standards in the Framework of Essential Skills of the K-12 CTO outlined by the Consortium for School Networking (CoSN), the premier professional organization in my field.