Lonely Dots, Dot Connecting & the Engineer of the Future

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This event traces its origins to an almost chance encounter between two dots. One dot, a bundle of energy and enthusiasm called Sherra Kerns came to give a talk at the University of Illinois on September 5, 2007 at an event called a *Workshop on the Engineer of the Future*, and she got the house rocking. I am the other dot in this story, and I didn't know Sherra before the first Engineer of the Future event, but we hit it off, and the two dots stayed in touch and talked about things that they might do together.

That dot connecting led to a memorandum of understanding between Olin and Illinois, planning for this event, and planning for the larger alliance that we will launch at the end of the day, and this collision of two dots is in one sense the proximate cause of this event, but the point I want to stress is a larger one, one that relates to the engineer of the future and the transformation of engineering education.

The engineer of the cold war was an individual, a dot, valued for his or her specialized expertise, someone who worked in groups of engineers, largely practicing that specialty. The engineer of the present and the near future is also a dot, but the large numbers of technical and non-technical disciplines that come to bear on a given problem today, place a greater premium on the engineer's ability to *connect the dots,* to understand disparate disciplines, play well with others, and create new solutions to the amazingly challenging problems of our times.

Moving from the level of individuals to the level of institutions, it seems that the paradigm of the cold war is still in place when it comes to fostering change in engineering education. Yes, we come together to write proposals when funding agencies so insist, and all of us have friends at other institutions, and we even come together in conferences and meetings, but when it comes to change, we are lonely dots, dots that face conceptual and organizational hurdles that are difficult to overcome within our institutions alone.

This meeting is dedicated to the proposition that engineering education worthy of the engineer of the future will come about when we actively, persistently, and pervasively

connect the dots. It will come about when link each other's web pages, when we share practices and materials, when we visit and exchange faculty, when we exchange engineers between the academy and industry, when we build on each other's successes, when we learn from each other's mistakes. It will come about when we connect the dots at all levels, at the level of individuals, at the level of departments, colleges and companies, universities and conglomerates, states, and, even, nation-states.

So, with these few words, let the dot connecting begin. Let this day be a day of interaction and connection, and let this day lead to new friendships, to new working relationships, and to a renewal of vigor and motivation appropriate to the transformational challenge ahead.

We have a busy day, a fun day, even a joyful day, in front of us and we need to get started. Without further ado, let me turn to my fellow dot, Sherra Kerns, to introduce our keynote speaker.