Challenges Faced by Globally Distributed Engineering Design Teams

It has become common practice for product design teams to be geographically distributed; members may be located at places all over the globe. This represents a major change in the way design is conducted compared to the previous century. Use of geographically distributed teams makes it possible for organizations to incorporate a wider variety of design expertise in a given product design team than would be possible if the whole team had to reside at a single site. However, distributed design teams tend to be less efficient than those where all members are located at a single site; the difficulty of communicating, coordinating and collaborating with team members at distant sites is formidable. In this talk I will describe collaboration challenges and their causes observed in a case study of a biomedical device manufacturer, and propose possible solutions. The most effective solutions will likely involve a simultaneous combination of technological, managerial, and organizational innovations. It is critical that as engineers we broaden our thinking beyond a purely technological solution to a more systems oriented one to enable distributed product design teams to collaborate effectively.