The automobile industry is often characterized in terms that limit the scope of discussion to the manufacture and sale of new automobiles. This panel broadens the scope to include the broad set of complements, enablers, and constraints that make the industry one of the largest and most influential human enterprises in history. The role of information technology has been profound in the slow transformation of the industry from its original status as a product industry into what is increasingly a service industry in which “product” is something far different from what it was when the industry first became a powerful global force. The role of information technology (IT) in this process has never been in the foreground: it has always been infrastructural, making possible subtle but profound changes in nearly every aspect of the industry.

This panel will examine the mechanisms and logic of transformation in a world of rapidly changing capabilities in information processing and communication. In this, we depart somewhat from the contemporary practice of focusing on the ways in which specific information technologies (e.g., the Internet, World Wide Web, or e-commerce) change specific practices in the industry as it currently operates. Our focus is more upon the slow accretion of capability enabled by information technology that, in time, results in fundamentally new characteristics in the industry. In a way, this panel’s main interest is in the relationship between information and the automobile realm. We break this analysis into six regimes of change:

- Property regulation, risk mitigation, and complementary asset provision
- Atmospheric emissions control
- Passenger safety
- Entertainment, conviviality and control
- Expediting and coordinating production and distribution
Manufacturer-customer relationship construction and maintenance

The most important impacts of information technology in this transformation have been deep in the infrastructure of the vehicles themselves (e.g., emissions control, safety, entertainment), and in the records systems that have fundamentally important in altering the relationship between OEMs, dealers, automobile users, and other actors in the automobile realm. Attempts to e-enable or e-transform the automotive industry, large experiments, from changing the supply chain (e.g., Covisint) to revolutionizing sales (e.g., Auto-by-Tel) have thus far proved to be far less significant than their proponents hoped.

The story of IT in enterprise transformation in the automobile industry is one of slow, infrastructural, accretionary change that produces powerful cumulative effects. It is not surprising that this kind of change is difficult to see. Moreover, industry transformation is not limited to the businesses processes of the firms. It affects the broad fabric of economic and social enterprise in a world where information, knowledge, and value are easily reproduced and transported.

The contemporary developments in the Internet and the World Wide Web might very well, in time, produce such changes. To this point, they have not yet done so, and it is difficult to predict whether or how they will. The history of the automobile industry has from the start been one of complementary use of IT. The automobile industry co-evolved with modern IT, and in myriad ways, incorporated that technology as it grew. The full effects of such evolution are difficult to spot because they take a long time and so much of what is important becomes infrastructural and invisible. That is the reason why a broader view of automotive industry transformation is necessary to understand the effects of a class of technologies as broad as information technology on an industry as large, diverse, and complex as the automobile industry.