

Diagram IV

The Six Dialectics of Information Communication Technology Networks

1. Global ICT networks create the conditions for a common technology of communication and production processes while at the same time, making global markets for finished goods more unstable. The new “reach” of ICT in accessing global markets is accompanied by a reduced payback period for any new product created by corporate R & D, and reduces the length of time existing new products remain profitable. The new dynamic of the global market requires any single corporation to be first to market, and then first to market again, in the immediate future period of time.
2. As a result of restructuring to the core technical competency in order to produce new goods, the global corporation undergoes outsourcing of parts of the manufacturing process and layoffs of middle managers. Middle managers are the most important resources of institutional knowledge of existing markets and technology. By restructuring, and layoffs, the corporation cuts itself off from the source of internal learning and new knowledge, while creating conditions of no loyalty to the corporation in the remaining staff, who are focused on protecting their own welfare, not the corporation’s welfare.
3. ICTs create the potential conditions for “boundaryless” corporations through computer-based coordination of outsourcing parts of the production process, at the same time that it enhances the need for more carefully defined corporate property rights on intellectual property in order that the correct, legitimate, party in the outsourced chain of exchange appropriates legal profits from the exchange.
4. ICTs extend the “reach” of global corporations based upon market exchange, yet because ICTs facilitate common production technology, and because common production technology causes the price of the exchange to approach zero profit, the value of the extended reach is eroded by the prospect of zero profits from exchange transactions.
5. ICTs allow a global corporation to geographically decentralize the structure of operations and production while facilitating centralized command and control. The same ICT that facilitates tighter command and control for any single corporation also creates the technology for dissipating the core technical competency of the global corporation.
6. At the same time that ICTs make global mass markets unstable sources of profits, based upon exchange transactions of goods for final demand, it creates the conditions for making certain regional metropolitan markets more stable in terms of intermediate, inter industry trading relationships. Global corporations need the stability of regional metropolitan markets for several reasons, two of which are: as a replacement for the social/business networks that it used to have, internally, for creating new knowledge, and as a reliable source of creating technological progress in the corporation’s core competency through collaborative R & D in a region’s core technological cluster of industries. These are not the same reasons why a regional market needs the location of global corporations for creating the conditions of regional wealth and economic growth.