In an effort to meet the challenges of working within a changing technological environment, libraries have turned increasingly to the innovations offered in organizational development (OD). The premise of this paper that in order to better understand the “why’s” and “how’s” of OD, it is necessary to acknowledge that different units within the library will react differently to an administrative effort to introduce innovation. This paper identifies technology and structure as one means to organize these units into groups that can be studied in regards to the amenability to change. Therefore, this paper’s research question is, “how does technology and structure affect the libraries ability to implement innovation.” To support this question this paper will use three case studies to illustrate that, “units with a high level of routine will be more amenable to structural change than units with low levels of routine.”

While there has been much written in the library literature regarding the need for OD to help libraries cope with changes in technology, almost nothing has been written about the relationship between technology, structure, and the implementation of innovation. Turning to the organizational theory literature it is possible to use Daft’s idea of the “Dual Core Approach” (Daft, 1978) to look at this relationship. Dual core technology posits that that technical core and the administrative core are responsible for different types of innovation. The organizations administration is generally responsible for structural changes such as strategy, restructuring or teams. Conversely, the technical core is concerned with innovations concerning the transformation of inputs into products. Dual core theory further claims that, “low formalization, decentralization, and high complexity (professionalism) are suited to innovation within the technical core, while high formalization, centralization and low complexity are best suited for administrative type changes.” (p.208)
Between 2003 and 2005 the investigator implemented three process improvement initiatives into library units at the University of Notre Dame Libraries. These case studies generally supported Daft’s, Dual Core theory. One anomaly that arose from these case studies was that the Dual Core theory predicts that units with a higher level of formalization will be unable to innovate internally. This was found not to be true. Production level innovation was found to exist even within units with a high degree of formalized structure. In effect highly mechanized units within the case studies were amenable to both administrative type structural changes, as predicted by the Dual Core model, and production level innovation, which the Dual Core model predicts will only happen within organic structured units. The phenomenon of an organizational structure being both amenable to structural changes and capable of internally innovation has been labeled the Ambidextrous Approach (Duncan, 1995).

A highly structured unit or organization can become ambidextrous by having organizational structures such as having venture teams, skunk works, or switching structures association with them. None of these techniques were present in the case studies. Speculatively, it appears that the highly structured library units achieve the ability to innovate internally by having a high degree of formalized contact with similar units in other universities. Libraries may present a new means of creating ambidextrous units by having the unique combination of characteristics of firstly, being an organization which employs a large pool of structured unskilled labor. Secondly, using behavioral based controls systems to mange these units, and lastly, having these units managed by a professional that is not competitive with other libraries and thus encourages extra-organizational cooperation.


