

Emerging Spinecare Trends

Future Role of Traditional and Virtual Organizations

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In the future, consumers will be influenced less by individual physicians and traditional marketing approaches. They will increasingly turn to national organizations and consensus opinions for information about spinecare and products which can be used to improve the health of their spine. Healthcare professionals will also turn to organizations to help them integrate with other spinecare professionals and with facilities that offer spinecare. Select organizations will rise to a position of greater influence (cultural authority) and serve to integrate other less capable or specialty organizations. Successful professional organizations will develop virtual divisions and/or departments to perform tasks and provide access to resources. These might be referred to as virtual organizations or virtual divisions of organizations.

The development and application of virtual organizations (VO) in spinecare will enhance discovery and innovation by bringing professionals and resources together across institutional, geographical and cultural boundaries. In the future VO's will be used to facilitate the application of leading-edge transformative research and learning within and across all fields of spinecare.

Complex, networked socio-technical systems will be supported by advanced cyberinfrastructure allowing VO's to integrate professionals and informational resources. This process will foster effective data streaming thus enabling new approaches to scientific inquiry and education. It will allow remote access to experimental tools, observational instruments, simulation systems, and to spine disease modeling.

Virtual organizations extend beyond traditional "brick and mortar" institutions, and can therefore provide flexible boundaries facilitating professional integration and sharing of information from distances never before possible. VO's will be explored as primary mechanisms for enhancing innovation and broadening participation in spinecare networks. These socio-technical systems will be leveraged to generate and accelerate transformative research. The process will require successful integration of specialists with expertise in spine informatics, spine pathology, network science, artificial intelligence, statistical physics, software/hardware design, information privacy and security, operations research, and organizational studies.