NEUROSCIENCE SYMPOSIUM PROPOSAL

Bridging the Gap:
The Dichotomy of Data Visualization in Neuropsychology and Technical Communication

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Technical Communication and specialized fields in Medical Neuroscience, such as Clinical Neuropsychology overlap in interdisciplinary communication. Data visualization poses an opportunity for stakeholders and medical practitioners to gain insight on how effective Technical communication in translational and communicative aspects of medical writing. This research creates connections by displaying how Technical Communication integrates data visualization, aspects of neuroimaging, and visualization tools. Technical Communicators utilize core competencies to be valuable assets to academic settings, scientific associations, and within the medical field. Data visualization is an important part of Technical Communication because visual rhetoric informs the structure, content inclusion, and semiotics included in a text. Visual rhetoric is the rhetorical display of meanings through the integration of visual and verbal cues. Thus, visual rhetoric provides a lens for stakeholders, academics, scholars, and the public to better understand scientific language and images presented in clinical neuropsychology. Clinical neuropsychology is a subsection of psychology that focuses on the cognitive mental processes and behavior and brain function and structure. Technical Communication explores the usefulness and usability of neuroimaging as a process that extracts data from the brain.

Technical Communication seeks to explore aspects of neuroimaging such as its techniques, processes, and behaviors to provide core competencies as data miners and interpreters. Visualization tools help to focus on data actualization and data synthesization. The literature within the Annotated Bibliography focused on science methods, planning process, neuroimaging techniques, and visualization tools. The literature was circular, beginning with particular visualization tools and working to expand on scientific methods. Being diverse and learning multifaceted areas of a discipline is important for Technical communicators because it will make them well-rounded contributors to any body of knowledge and engage in symbolic-analytic work. The findings conclude that Technical Communication can improve neuroimaging by serving as subject-matter experts between information architects and the receivers of the knowledge being shared. Technical communicators bridge the gap between neuropsychologist, medical practitioners, and non-academic audiences by building visual structures of understanding and implementation through visual cues and will gain genre familiarity by being exposed or having initial experience with medical technologies which will be beneficial in creating specialized reports for medical professionals.