This book pulls together the complex scientific issues that a user has to deal with and provides the most comprehensive review to date of the rapidly expanding literature.

Since becoming commercially available in 1985, transcranial magnetic stimulation (TMS) has emerged as an important tool in several areas of neuroscience. Originally envisioned as a way to measure the responsiveness and conduction speed of neurons and synapses in the brain and spinal cord, TMS has also become an important tool for changing the activity of brain neurons and the functions they subserve and as important adjunct to brain imaging and mapping techniques. Along with transcranial electrical stimulation techniques, TMS has diffused far beyond the borders of clinical neurophysiology and into cognitive, perceptual, behavioral, and therapeutic investigation and attracted a highly diverse group of users and would-be users.

This book provides an authoritative review of the scientific and technical background required to understand transcranial stimulation techniques and a wide-ranging survey of their burgeoning application in neurophysiology, perception, cognition, emotion, and the clinic. Each of its six sections deals with a major area and is edited by an international authority therein. It will serve researchers, clinicians, students, and others as the definitive text in this area for years to come.