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# 3 Tools in NeuroIS Research: An Overview

## 3.1 A Framework to Categorize NeuroIS Tools

- **Positron Emission Tomography (PET)**
- **Functional Magnetic Resonance Imaging (FMRI)**
- **Functional Near-Infrared Spectroscopy (FNIRS)**
- **Electroencephalography (EEG)**
- **Transcranial Magnetic Stimulation (TMS)**
- **Transcranial Direct-Current Stimulation (TDCS)**

## 3.2 Measurement and Stimulation of the Central Nervous System

- **Positron Emission Tomography (PET)**
- **Functional Magnetic Resonance Imaging (FMRI)**
- **Functional Near-Infrared Spectroscopy (FNIRS)**
- **Electroencephalography (EEG)**
- **Transcranial Magnetic Stimulation (TMS)**
- **Transcranial Direct-Current Stimulation (TDCS)**

## 3.3 Measurement of the Peripheral Nervous System

- **Electrocardiogram (EKG)**
- **Galvanometer**
- **Oculometry**
- **Facial Muscular Movement**

## 3.4 Measurement of the Hormone System

## 3.5 Outlook

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# 4 Topics in NeuroIS and a Taxonomy of Neuroscience Theories in NeuroIS

## 4.1 NeuroIS Topics: An Analysis of Proposals

- **Genesis of NeuroIS and First Topics**
- **An Integrative Review of Research Agendas and Discussion Papers**

## 4.2 NeuroIS Topics: An Analysis of Papers

- **Sample and Procedure**
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## 4.3 Neuroscience Theories for NeuroIS: A Taxonomy

- **What Is Theory in Neuroscience?**
- **Neuroscience Theory—Analysis**
- **Neuroscience Theory—Explanation**
- **Neuroscience Theory—Design and Action**

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# 5 Establishing and Operating a NeuroIS Lab

## 5.1 The Process of Establishing a NeuroIS Lab

- **Discovery of Research Potential**
- **Financing a NeuroIS Lab**
- **Vendor Selection**
- **Build or Adapt Facilities**
- **Implementation and Integration**
- **Maintenance of Equipment**

## 5.2 Conducting NeuroIS Research

- **The Research Question and Literature Review**
- **Experimental Stimuli**
Fundamentals of NeuroIS
Information Systems and the Brain
Riedl, R.; Léger, P.-M.
2016, XIII, 115 p. 30 illus., 17 illus. in color., Hardcover
ISBN: 978-3-662-45090-1