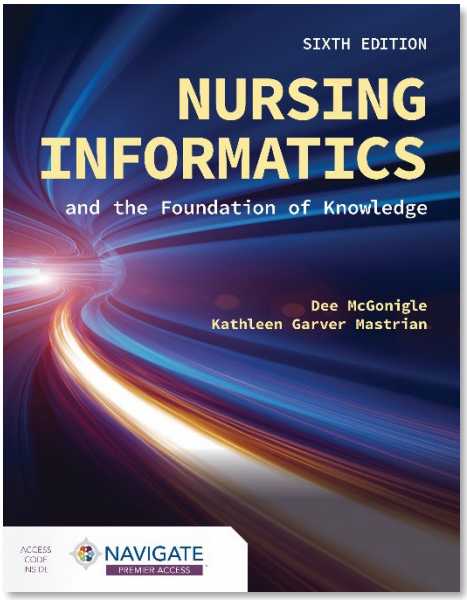
TRANSITION GUIDE



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This transition guide serves to outline the updates and new content found in ***Nursing Informatics and the Foundation of Knowledge, Sixth Edition*.**

OUTSTANDING FEATURES

- Created by the authors, the Foundation of Knowledge Model offers a comprehensive framework that embraces knowledge and illustrates the many ways by which knowledge is used to help provide quality care for patients and improve health delivery systems.
- Beginner- and advanced-level case studies focus on practical, real-life scenarios and demonstrate the practical applications of nursing informatics, tying core concepts to collaborative practice, interprofessional issues, and quality improvement.
- Research briefs encourage students to explore the most current trends and topics on their own. Thought-provoking questions stimulate discussion around key concepts.

REVISION UPDATES

- Added content on learner experiences (LX), Gen Z learners, and connections between the metaverse and AI as they relate to learning.
- Added content exploring how the global COVID-19 pandemic influenced online/virtual education and virtual simulations in the classroom.
- Added content exploring the blurring of realities (particularly as it relates to immersive learner experiences) and AI-guided learning.

APPLICABLE COURSES

- Nursing Informatics
- Healthcare Informatics
- Clinical Informatics

INSTRUCTOR RESOURCES

- Chapter Quizzes, Midterm, Final
- PPTs
- Instructor's Manual
- Syllabus
- Competency Mapping (both BSN + MSN/DNP)
- Assignments
- TANIC + NICA L3/L4 Instruments + Instructions

Note: Unfolding Case Studies and Interactive Lectures are available exclusively on Navigate.

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NEW TO THIS EDITION

Chapter 1: Nursing Science and Concepts of Knowledge

- Explore the impacts of AI, cognitive systems, machine learning and predictive analytics on knowledge management in organizations.
- Identify the importance of knowledge cocreation.
- Identify the characteristics of knowledge work.

Chapter 2: Introduction to Information, Information Science, and Information Systems

- Emphasize the need to ethically implement ISs to mitigate impacts on users and institutions
- Explore issues associated with asset classification i.e. drug or device
- Explore issues related to IoT and AIoT

Chapter 3: Computer Science and the Foundation of Knowledge Model

- Updates on haptics for immersive technologies and VR
- Moved computer components from text to a table and summarized them
- Provided a table summarizing major types of software
- Provided an overview of input devices in a table
- Added a description of a VPN with encryption
- Introduced the metaverse

Chapter 4: Introduction to Cognitive Science and Cognitive Informatics

- Explored AI and Machine learning
- Added Natural language processing

Chapter 5: Ethical Applications of Informatics

- Explored the ethics of using robots as substitutes for human carers
- Identified challenges and opportunities related to social media use by patients and providers
- Discussed motives for seeking information and emotional support online

Chapter 6: History and Evolution of Nursing Informatics

- Explore evolution of NI definitions
- Share current NI definition
- Update AACN education guidelines
- Share 2021 Informatics competencies identified in Essentials: Core Competencies for Professional Nursing Education

Chapter 7: Nursing Informatics as a Specialty

- Shared updates from 3 rd ed ANA's Nursing Informatics: Scope and Standards of Practice (2022)
- Identified the ways in which INs provide value
- Explored trends influencing the future of NI

Chapter 8: Legislative Aspects of Nursing Informatics: HIPAA, HITECH, and Beyond

- Updated concerns related to use of personal devices in workplace and BYOD policies
- Noted that CMPs associated with PHI breaches may increase with inflation.
- Alerted that privacy rule changes are expected mid-2023
- Provided access to global health legislation tracker

Chapter 9: Systems Development Life Cycle: Nursing Informatics and Organizational Decision Maing

- Updated description of object oriented modeling
- Updated description of CASE
- Differentiated between free software and open source software

Chapter 10: Administrative Information Systems

- Expanded discussion of interoperability
- Described the use of metadata tagging in the interoperability context
- Discussed documentation integrity
- Introduce and define unified communication for healthcare
- Updated ADT description and use
- Introduce CDI

Chapter 11: The Human-Technology Interface

- Data visualization as a tool to model complex healthcare data
- Clarified NFC transactions
- Added a detailed description of VR headset use
- Discussed the importance of managing HTI with new technologies

Chapter 12: Electronic Security

- Updated tips for creating strong passwords
- Expanded discussion of electronic data vulnerability
- Reviewed recent data breaches
- Reiterated that careless or negligent insiders are still a major threat to electronic security

Chapter 13: Achieving Excellence by Managing Workflow and Initiating Quality Projects

- Emphasized the value of process improvement theories
- Introduced the Patient Room Next (PRN) strategy for providing high quality healthcare regardless of patient location
- Reviewed the 7 key steps for a quality improvement project.

Chapter 14: The Electronic Health Record and Clinical Informatics

- Updated EHR adoption statistics.
- Explored how interoperable EHRs facilitate data sharing

Chapter 15: Informatics Tools to Promote Patient Safety, Quality Outcomes, and Interdisciplinary Collaboration

- Shared 10 common medical errors leading to patient deaths
- Identified new issues and challenges related to caring for Covid-19 patients.
- Shared access to global strategies for safety
- Explore contributions of wearable technologies to safety and early detection of issues

Chapter 16: Patient Engagement and Connected Health

- Share changes in fitness app market
- Explore use of an AI powered web based symptom checker
- Medical misinformation during pandemic
- Explore digital divide via an interactive map tool
- Identify wearable tech as consumer centric technology
- Introduce virtual and augmented reality tools for engagement.

Chapter 17: Using Informatics to Promote Community and Population Health

- Describe EPA risk assessment
- Introduce AI as prediction tool for disease outbreak
- Explore quality public health messaging

Chapter 18: Telenursing and Remote Access Telehealth

- Telehealth use expected to level off post-pandemic
- Update US healthcare spending costs
- Update telehealth definition
- Will telehealth help reduce disparities?
- Explore medical and nurse licensure compacts
- Will telehealth support and regulations change post-pandemic?

Chapter 21: Nursing Research: Data Collection, Processing, and Analysis

- Identified the information literacy competency standards specific to nursing
- Acknowledged the role of the pandemic in accelerating the commitment to collecting healthcare data in a standardized way to facilitate data sharing and treatment outcomes.

Chapter 22: Informatics-Based Research Processes: Data Mining and Artificial Intelligence

- Expanded former data mining chapter to include artificial intelligence, bioinformatics, and computational biology contributions to data analytics
- Acknowledged the contributions of the former BD2K program
- Advocated for use of EHR data for comparative effectiveness research
- Identified 3 main types of data analytics

Chapter 23: Generating and Translating Evidence for Practice

- Explore the potential contributions of bioinformatics and computational biology to evidence for practice.
- Introduced the NCATS translational science spectrum
- Incorporated information from former Chapter 24 on bioinformatics and computational biology and their effects on clinical translation

Chapter 24: The Art of Caring in Technology-Laden Environments

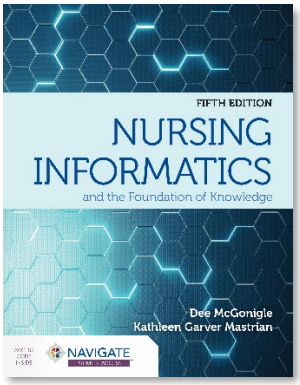
- *Formerly Chapter 25*
- Advocate for adding technology as a 5th dimension of nursing paradigm
- Considerations for conveying caring while earing PPE
- Caring encounters as communion-in-caring
- Emphasized reflection to improve caring encounters

Chapter 25: Our Expanding Realities

- *Formerly Chapter 26*

CHAPTER OUTLINE

This chapter outline comparison has been created to help you easily transition to the *Sixth Edition*. Note that chapter content from the *Fifth Edition* may now be found in a different chapter in the *Sixth Edition.* Also note that chapter numbers and titles may have been updated.



Nursing Informatics and the Foundation of Knowledge, Fifth Edition

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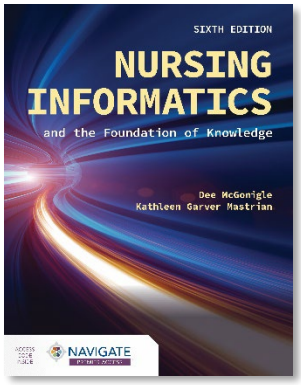

Nursing Informatics and the Foundation of Knowledge, Sixth Edition

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Fifth Edition	Sixth Edition
Section I: Building Blocks of Nursing Informatics	**Section I: Building Blocks of Nursing Informatics**
Chapter 1: Nursing Science and Concepts of Knowledge	Chapter 1: Nursing Science and Concepts of Knowledge
Chapter 2: Introduction to Information, Information Science, and Information Systems	Chapter 2: Introduction to Information, Information Science, and Information Systems
Chapter 3: Computer Science and the Foundation of Knowledge Model	Chapter 3: Computer Science and the Foundation of Knowledge Model
Chapter 4: Introduction to Cognitive Science and Cognitive Informatics	Chapter 4: Introduction to Cognitive Science and Cognitive Informatics
Chapter 5: Ethical Applications of Informatics	Chapter 5: Ethical Applications of Informatics
Section II: Perspectives on Nursing Informatics	**Section II: Perspectives on Nursing Informatics**
Chapter 6: History and Evolution of Nursing Informatics	Chapter 6: History and Evolution of Nursing Informatics
Chapter 7: Nursing Informatics as a Specialty	Chapter 7: Nursing Informatics as a Specialty
Chapter 8: Legislative Aspects of Nursing Informatics: HIPAA, HITECH, and Beyond	Chapter 8: Legislative Aspects of Nursing Informatics: HIPAA, HITECH, and Beyond
Section III: Nursing Informatics Administrative Applications: Precare and Care Support	**Section III: Nursing Informatics Administrative Applications: Precare and Care Support**
Chapter 9: Systems Development Life Cycle: Nursing Informatics and Organizational Decision-Making	Chapter 9: Systems Development Life Cycle: Nursing Informatics and Organizational Decision-Making
Chapter 10: Administrative Information Systems	Chapter 10: Administrative Information Systems
Chapter 11: The Human-Technology Interface	Chapter 11: The Human-Technology Interface
Chapter 12: Electronic Security	Chapter 12: Electronic Security
Chapter 13: Achieving Excellence by Managing Workflow and Initiating Quality Projects	Chapter 13: Achieving Excellence by Managing Workflow and Initiating Quality Projects
Section IV: Nursing Informatics Practice Applications: Care Delivery	**Section IV: Nursing Informatics Practice Applications: Care Delivery**
Chapter 14: The Electronic Health Record and Clinical Informatics	Chapter 14: The Electronic Health Record and Clinical Informatics
Chapter 15: Informatics Tools to Promote Patient Safety, Quality Outcomes, and Interdisciplinary Collaboration	Chapter 15: Informatics Tools to Promote Patient Safety, Quality Outcomes, and Interdisciplinary Collaboration

Chapter 16: Patient Engagement and Connected Health	Chapter 16: Patient Engagement and Connected Health
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Chapter 18: Telenursing and Remote Access Telehealth	Chapter 18: Telenursing and Remote Access Telehealth
Section V: Education Applications of Nursing Informatics	**Section V: Education Applications of Nursing Informatics**
Chapter 19: Nursing Informatics and Nursing Education	Chapter 19: Nursing Informatics and Nursing Education
Chapter 20: Simulation, Game Mechanics, Virtual Worlds, and Realities in Nursing Education	Chapter 20: Simulation, Game Mechanics, Virtual Worlds, and Realities in Nursing Education
Section VI: Research Applications of Nursing Informatics	**Section VI: Research Applications of Nursing Informatics**
Chapter 21: Nursing Research: Data Collection, Processing, and Analysis	Chapter 21: Nursing Research: Data Collection, Processing, and Analysis
Chapter 22: Data Mining as a Research Tool	Chapter 22: Informatics Based Research Processes: Data Mining and Artificial Intelligence
Chapter 23: Translational Research: Generating Evidence for Practice	Chapter 23: Generating and Translating Evidence for Practice
Chapter 24: Bioinformatics, Biomedical Informatics, and Computational Biology	
Section VII: Imagining the Future of Nursing Informatics	**Section VII: Imagining the Future of Nursing Informatics**
Chapter 25: The Art of Caring in Technology-Laden Environments	Chapter 24: The Art of Caring in Technology-Laden Environments
Chapter 26: Our Expanding Realities	Chapter 25: Our Expanding Realities and the Metaverse