Ethical and moral issues in the past two decades have not only become complex and diverse but also the record of reported misconduct is on the rise. Within the same period, the technology-driven globalization has equally enhanced cross-border ethical issues and created new levels of ethical concerns. Incidents of ethical violations and concerns in the workplace, research methods, business, medicine, education, healthcare, research with human, research with animals, food, agriculture, science, governments, politics, and technology, to name a few, are of major concern at both the micro and macro levels of national and global societies. Professional organizations, federal and private research funding agencies, as well as major regulatory bodies are becoming increasingly concerned about ethical violations in research methods and practices and are developing new regulations and grants designed to promote and encourage more effective ethics education and training programs.

Recent examples of questionable research reported by the media include but are not limited to the recent article by Paul Basken (2014) in the *Chronicle of Higher Education* regarding the case of death of a laboratory technician at UCLA as a result of improper training by the university. Other recent headlines have evoked urgent needs for development of adequate university courses on research ethics that may help reduce incidents of violations and potential prosecutions of both individuals and their respective institutions of higher education. For example, in an article in *Science Magazine* by Eli Kintisch (2006), a medical researcher was sentenced to one year in federal prison for fabricating data in numerous grant applications and studies in what federal regulators called the worst research misconduct case in 20 years. This questionable behavior of creating and applying unduly collected data tend to falsify reports and create potentially dangerous results especially in medical field where results will have negative implications for patients.

In a 2005 study (Martinson, Anderson, & de Vries, 2005), *Nature* reported that one-third of scientists surveyed admitted engaging in at least 1 of 10 practices that were potentially sanctionable by university compliance and ethics officers. There are several ethical challenges and these can be classified into major categories including the following: research misconduct, clear understanding of ethics concept...
and principles, technology-enabled ethical concerns, organizational and professional irresponsibility and unethical behaviors, governance, environmental, and global ethical challenges. In addition to these challenges, there are issues relating to inadequate and ineffective ethics education and training programs, and thus, the increasing need for a more innovative and effective training programs.

The National Academy of Science (n.d.) defines scientific misconduct as behaviors that are questionable, and these include plagiarism, fabrication, and falsification of data. While these traditional ethical and moral issues currently dominate discussion, the complexity in the academia, especially high research institutions, have become a major issue with the initiatives and drive for interdisciplinary and collaborative research. In addition, the growth in cross-border research collaboration among universities and corporate alliances for research and development and patents acquisitions has infused cultural ethical issues into the ethic concepts and principles that are already hard to interpret even in a homogenous society. Universities and colleges are having difficulty in the training and education of international visiting scholars and students regarding ethical research methods. Since integrity and morality are among the principles that are developed within the early years of an individual development and are largely influenced by the norms of the society, it is rather difficult to quickly and effectively change attitudes and behaviors of international scholars who are in the United States for some few months or years of collaborative research and learning. An example of the potential ethical implications of interdisciplinary research and collaboration can be seen in the development of nanotechnology and nanosciences. This is an interdisciplinary movement that encompasses such disciplines as biology, physics, chemistry, engineering, medicine, agriculture, food, environmental sciences, etc., and the risk and benefits are yet to be fully researched.

In addition to the potential ethical issues induced by intercultural collaborative research and advances in technology, there are the issues of misconducts relating to both quantitative and qualitative research methods. Traditionally, emphasis has been on quantitative data and thus ethical issues has been identified as such (research misconduct-fabrication, falsification, plagiarism, etc.); however, there has been an increase in the number of social scientists who find the qualitative research method most appropriate for their respective research questions. Reichart and Cook (1979) defined qualitative research technique as a study which includes ethnography, case studies, in-depth interviews, and participant observation. This research method subscribes to attributes such as subjective, “insider” perspectives, grounded, discovery-oriented, exploratory expansionists, descriptive, inductive and process-oriented. Evered and Louis (1981) defined the technique as being characterized by the “experimental involvement of the researcher, the absence of priori analytical categories, and an intent to understand a particular situation”; both authors also
stated that both qualitative (inquiry from inside) and quantitative (inquiry from the outside) methods are necessary and often complimentary.

Qualitative research methods or techniques raise a number of ethical concerns which may not be seen in the quantitative method. These include subjective evaluation of observed behavior, fewer samples of data application, and potential false interpretation of written reports or context evaluation. There have been a number of controversies among intellectuals regarding the authenticity of qualitative method as a research. In response to the discussions, Bishop (1998) and Rains, Archibald, and Deyhle (2000) referred to the call by First and Fourth World (FFW) scholars for an indigenous research ethics policies, and following this reference, studies by Denzin (2003; Denzin, Lincoln, & Giardina, 2006) equally propose and support an elaborate discussions of ethics, science, causality, trust, and a reiteration of moral and ethical criteria for judging qualitative research. These discussions with focus on the quality and potential ethical issues relating to qualitative research method continued with a statement by the National Center for the Dissemination of Disability Research Standards (2007), which states, “We need criteria for comparing research methods and research evidence, we need terms like credibility (internal validity), transferability (external validity), dependability (reliability), and confirmability (objectivity),” which may be very difficult to construct in a qualitative technique. Discussions on qualitative research method’s potential areas of contemporary ethical issues include but not limited to the complexities of new sources of data collection such as social media, modes of accessing participants, definition of research boundaries, informed consent, and analysis in the context of rapid changing research environment, confidentiality, and potentials for “disruptive questions.”

Traditional and contemporary philosophers are still divided on the basic concepts and principles of ethics: individual morality or integrity versus group ethics. Currently, there is no consensus on what is ethical and what is not. There are ongoing debates on what is legal, illegal, ethical, or unethical. The debate continues as we examine new technology related ethical issues such as nanotechnology, cyber-crime, Internet, intellectual property and patents violations, terrorism, fraud, copyright, trademark, and identity theft, to name a few.

To discuss contemporary issues surrounding ethical research method and practice, it is important to note the various effect of technology innovation at both the micro and macro levels of the society. Technology advancements come with potential benefits and challenges. The Internet brings with it new forms of knowledge and methods of disseminating information at a record speed (creating a knowledge socio-economy) but at the same time has raised potential ethical issues in research such as Internet data collection, sampling, and ethical issues of privacy, authenticity of data, cyber-crime including identity theft, and validity of research findings. Similar issues apply to smart phones, online education programs and degrees, to
name a few. Ethical issues abound in all of the above, including the advancement in nanotechnology which poses potential benefits and ethical challenges. Nano-
technology is generally defined the science of miniscule molecule or a wide range of technology that measure, manipulate, or incorporate materials or features with at least one dimension between approximately 1 and 100 nanometers (a nanome-
ter is one billionth of a meter; the width of an average human hair is 100,000nm) (National Nanotechnology Initiative, n.d.). As much as this new technology has enormous capability to positively change lives through medical innovations, green environmental initiatives, cleaner energy initiatives, water treatment, agriculture and food production, it is a relatively new and the impact has not been fully tested. At the micro level, for example, there are potential ethical issues in occupational safety and health in nanotechnology workplace including the impact of nanomate-
rial explosion during production. And at the macro level there are potential risks for both workers and consumers since there is currently neither clear oversight nor regulations for nanotechnology research. The integrity and moral behavior of a researcher to collect and report accurate data is very critical in nanotechnology research. Ethical values must be enforced in order for the macro society to benefit from all that nanotechnology has to offer.

From another angle, the power of this new phenomenon to enhance terrorism or terrorists’ activities by potentially arming the terrorist cannot be overlooked and must be examined as a major criminal and ethical concern. For example, weapons and surveillance devises can be made smaller, cheaper, more powerful, and easily portable. These possibilities may cause conflict among nations as reverse engineering, copying, and inexpensive manufacturing could lead to proliferation of such devices (Anyansi-Archibong & Udoka, 2010). As research continues on this new technol-
ogy, it is imperative that regulatory funding agencies develop policies and training programs to mitigate the risks and potential ethical issues that may arise especially in situations where firms and individuals who are more concerned with making money bring products to the market before the scientific data on their long-term effect on the consumer is fully and adequately tested. In addition, other potential and identified areas of ethical implications in nanotechnology include but are not limited to biomedical, biotech, military science, toxicology, human enhancement, artificial intelligence, and space exploration.

Another technology or computer-related ethical research issues which has been recently in the media is the cybercrime or ethics. Wikipedia defines this as the philosophic study of ethics pertaining to computers including ethical issues of the freedom of information in relation to privacy, intellectual property, security, and accuracy of information (Cyber Ethics, n.d.). Further expansion of this concept includes ethics of the accuracy of computer input and the use of computer to alter output, for example, retouching photos, and other documents. Others include privacy,
secrecy, and anonymity, as in protecting personal data and protection from undesired attention, respectively; intellectual property, as in the protection of original works, inventions, arts, logos, etc.; and finding ways to stop illegal copying and distributions of movies, music, and many other digital contents. Included in the cyber-ethics moral considerations is the issue of “Green Computing,” which examines the reduction or non-reduction of electricity and environmental waste while using computers (Shelly & Vermaat, 2011). There are toxic materials and potentially dangerous elements such as lead, mercury, etc. in computers that if not properly disposed may create major human and environmental disasters.

Today’s media is awash with Internet and social media crimes (all associated with computer technology) from Facebook to Twitter in their applications by terrorists such as the organization of Islamic states for connectivity and information sharing to Internet hackers. There are many individuals who exploit the power of technology for criminal purposes instead of seeking the good that technology provides. Good cyber-ethics involves having reasonable understanding of the risks of harmful and illegal behavior associated digital online activities. As much as technology-related ethical issues are closely related to the traditional research misconduct, the ease with which one can access and manipulate data makes these contemporary issues in research ethics more critical.

Another technology-related ethical issue on the rise is the relationship between research institutions and businesses. The global economy driven by technology advancement continues encourage and promote relationships among researchers and corporate R&D. According to Josephson of the Josephson Institute (2010), today’s ultra-competitive, high-tech and global business world, charisma without conscience, and cleverness without character is a recipe for economic and personal failure of epic proportions. However, as much as businesses need to be competitive and innovative to succeed, the operations must be regulated by strong ethical principles. Executives must have characters that include honesty, integrity, fairness, respect, law-abiding, accountability, and responsibility, most of which form the foundation for ethical behavior and practice.

Several organizations (ENRON, 2006, Arthur Anderson, 2006, Tyco International, 2004, Martha Stewart, 2005) have been indicted and found guilty of many ethical violations including insider trading, banking fraud, accounting irregularities, employee discriminations, bribery, and many more. The same can be said of professionals and government officials. Ethical issues among professionals in academia range from co-authorship, mentor-mentee relationships, data ownership, to publication violations. With the pressure to “publish or perish” situations at the universities and colleges, academic professional find themselves plagiarizing, committing less time to quality research and mentoring, demanding authorship recognition without adequate input in supervised dissertation, duplicating of journal submissions, and many more. These
practices relate to the individual integrity and morality. An unethical business or institutional leader or researcher will promote unethical practices for profit. It was recently reported that many new digital gadgets and products are embedded with data gathering devices that secretly collect data on individuals’ habits including likes and dislikes. This data is often sold to companies for advertising and marketing.

To minimize these growing ethical issues many organizations (professional, for-profit, and not-for-profit) have developed ethical code of conduct and many such as the Academy of Management, Engineering, Psychology, and other professional organizations not only have ethics codes but committees designed to monitor and set up ethics discussion sessions at the annual meetings. However, in both situations, it is not possible to engage every member of the organizations in ethical discussions even on an annual basis. As much as the effectiveness of ethics code is questionable, it is better to have one than none. However, it is important that the codes be continually upgraded to include current ethical concerns and practices.

In addition to researchers, professional and business organizations working with researchers, unethical practices continue to surface amongst politicians and government officials. For example, USA Today’s (2014) opinions section reported on how congress backpedals on insiders trading bills and their investments on the Stop Trading on Congressional Knowledge (STOCK) Act. Data is being manipulated to give government officials an advantage in stock investment. Although this is a clear conflict of interest and this happens when members of congress write laws governing companies and industries in which they invest, it involves research ethics since these individuals are manipulating the stock information for their respective benefits.

In the state of North Carolina, a 2012 debate on whether the “euthanization” of over 400 individuals was ethically or legally justified was finally resolved in 2014. Surviving individuals were asked to file for compensation of a specific amount determined by the state (Greensboro News and Records, 2014). Lists of examples continue as you open the newspapers or listen to the radio, read journals, etc. The question of ethics in both research methods and practices is a multidimensional issue. It involves factors ranging from personal and organizational values to national cultures and the environment. Contemporary ethical concerns, which have been made more complex by globalization and technology advancements abound and span from concerns for ethical research design, data collection, data analysis and interpretation, to authorship, co-authorship, ownership of data, storage and sharing, privacy, security, etc. There are also growing concerns for social responsibility in nanosciences, nanoengineering, and environmental sustainability issues. Human rights, child labor abuse, intellectual property violations, patents, animal abuse, governance, corruption among leaders, terrorism, to list a few, are at the top of the United Nations’ ethical agenda. The United Nations’ Global Compact has stepped up its efforts to call on organizations, especially Business Corporation to become a
more responsible and ethical entities (UN Global Compact, 2010). The Millennium Development Goals also call on governments and multinational corporations to improve human conditions by eradicating hunger, health issues, enhance education, and ensure environmental sustainability. These issues are prevalent in the use of qualitative research method which was presented earlier in this preface.

But the questions remain unanswered: What is ethics and what is morality? Is there a consensus on what is ethical or how we teach the concept (process and content)? What are the major areas of ethical concerns in research methods and practices? How do people and organizations make ethical decisions? What are the potential implications of ethical research behavior in the micro and macro levels of the society?

The answers may lie in the ability of society to educate, regulate, enforce, and possibly develop universal or cross-cultural policies and guidelines for ethical research conduct. Comstock (2013) proposed an initiative that is designed to create a vibrant moral community and a coherent introduction to ethical thinking. The intent is for the initiative to substantially depart from the conventional model of Responsible Conduct of Research (RCR) compliance-based training. The objective of this initiative is to create a welcoming community of scholars that is a group of people with critical thinking skills and bold enough to ask questions and challenge the rules. This initiative calls for discussion leadership approach and Socratic methods to ethics training. This approach uses the case method of learning which has been credited with longer retention of knowledge, development of critical thinking skills, questioning of the status quo, and development of effective communication skills. Most of the contemporary issues in research ethics and practice (computer and digital contents) need further exploration and the Socratic methods may allow researchers to explore ethical issues within their respective communities as well as retain knowledge thereby think of consequences of their actions in relations to research.

All the ethical questions may not be completely answered in this book just as it is difficult to reach a consensus among philosophers, bioethics, scientists, sociologists, medical personnel, etc. on what the concept or principles of ethics really are. However, the book presents a selection of topics that cover major contemporary ethical issues in research and practice.

This book is an initiative designed to raise further awareness of increasing ethical issues with a focus on research methods and practice and the need for ethical education and training approaches that go beyond compliance focused training. The book also presents some thought provoking topics that need further investigations and discussions to promote a more adequate and effective research ethics practice and education. This book is organized into four themes or sections with a total of 13 chapters. A brief description of each section and the chapters are presented below.
Section 1 presents a general perspective on ethics and ethical issues. Chapter 1 discusses the philosophical background to the concept of ethics with focus on the general definitions, principles behind the concept, trends in ethical research and practices, and select literature on the topic. The chapter summarizes the concept with the notion that philosophers and researchers have not reached any consensus on what ethic is and how ethical decisions are made. Chapter 2 examines law and economics of integrity as a social capital. This chapter proposes that integrity as a social capital engenders a kind of virtuous-circle feedback-mechanism respecting the very character of a citizenry. The chapter contends that individual responsibility is a critical feature of any successful market economy and proceeds to examine law and economics backdrop to these realities.

Section 2 focuses on research methods perspectives. Chapter 3 examines the ethical issues in case study research. The chapter highlights some of the discussions mentioned earlier about debates on the scientific nature of qualitative research methods. It presents some moral discussions on the case author’s objectivity, authenticity, and co-authorship, especially with graduate students. While Chapter 4 highlights the ethical concerns in human subject research and IRB compliance with a focus on ethical issues in studying teen mothers, Chapter 5 examines issues in “networked” Saudi Arabia society and discusses issues of Internet data and ethical issues.

Section 3 presents perspectives on professional and organizational research ethics and practice. Chapter 6 examines the literature on the role of ethical leadership in ethical organizations with some focus on leadership integrity in creating ethical organization. Emphasis is on the application of ethical leadership in ethical organization to improve performance in the social media age. Chapters 7 and 8 present ethical dilemmas facing pediatric researchers in working with minors and ethical issues in professional mentor-mentee relations, respectively. The issue in pediatric research is concerned with the ethical obligations of observation of potential clinical significance unexpectedly discovered in research participants and unrelated to the purpose of the study. The chapter on mentor-mentee relationship explores the physical and psychological that when breached might create an unethical issue. Rounding out this section are Chapters 9 and 10, which, respectively, present some conceptual framework for examining ethical decision making in organizations using the ethical triangle model and a socio-economic model for developing ethics code and ethical behavior in a multicultural environment. The value proposition for these two chapters is an attempt to enhance practitioner approach to development of more meaningful and effective ethics training and education, especially in relationship with research and development department, supplier relationships, and customers.

Section 4 rounds out the book with topics in ethics education. This is a critical part of the discussion since major debates on the issues of research ethics and practices have been blamed on ineffective education programs and training procedures and
for the increase of ethical misconduct as well as the proliferation of non-compliance issues. Chapter 11 discusses challenges in ethics education with a focus on the content and process and recommends a potentially new approach for delivering ethics education. The chapter presents some results of a study designed to assess research ethics education through an open seminar process. The objective was to compare the process of building a “community of ethical learners and researchers” with a group of regular lecture approach to ethics training. While Chapter 12 presents specific ethical issues in preparing instructional manual and delivery of instructions through the case method of teaching and learning and raises the issues of authorship, validity, students’ potentials for plagiarism through the Internet, Chapter 13 examines the challenges of teaching religious ethics in a developing society. This chapter raises the challenges presented by Christian morality, which conflicts with both African tradition and the rapidly changing social context. Social context in this case is represented by “fast and often chaotic modernization, urbanization, and globalization,” creating interrelated political, social, economic, cultural, and moral crises.

In summary, this book presents many thought-provoking topics (ethics education and training, cross-cultural ethical decision-making models, leadership ethics, ethical issues in case research and teaching, ethics in medical research, social media, religious morality, technology-related research and practices, etc.) for ongoing discussion on the subject of ethics and moral behavior. Recommendations on each topic or chapter call for ideas and proposals to minimize unethical behavior across the board. Each chapter recognizes both the interdisciplinary and global nature of the concept and the need for a more effective and collaborative training program with the objective of building an ethical society. As the conversation continues, it is imperative to know and understand that integrity is should never be compromised and that ethics is never situational.

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