Redefining the Health Information Management Scholar Role

by Melanie S. Brodnik, PhD, RHIA; and Shannon H. Houser, PhD, MPH, RHIA

The demand for healthcare data and information has grown exponentially with increased efforts to improve quality of care, decrease healthcare costs, and implement more efficient and productive means of conducting medical research. The roles and responsibilities of health information management (HIM) professionals have expanded to meet the industry’s demand and reliance on health information technology (HIT) to process and manage the data and information. As the industry transitions from paper to electronic health record (EHR) systems, it is important for HIM practitioners to expand the profession’s growing body of knowledge through research and scholarship. “HIM practitioners need the results of research to support their efforts to reinvent and reposition HIM functions and practices…and to update or create new [academic program] curricula.”¹ HIM practitioners also have an ethical duty to “advance HIM knowledge and practice through continuing education, research, publications, and presentations.”²

Scholarship and research are crucial elements in a discipline’s quest for legitimacy as a profession. Specifically, scholarship refers to disciplined inquiry and critical thought used to create or acquire new knowledge.³ It includes the integration, application, and teaching of knowledge, which is disseminated through education, practice, publication, and presentation.⁴ Scholarship is often equated to research, which refers to a systematic process of collecting, analyzing, and interpreting data to answer a question or solve a problem. There are two types of research, basic and applied. Basic research focuses on the theoretical understanding of an issue, whereas applied research links theories to practice and seeks solutions to practical problems.⁵ It is through research that “a profession continues to advance its knowledge, education and practice.”⁶ Kramer and Lyons emphasize that “research is the hallmark of a true profession…for it is through research that the advancement and improvements in a profession’s service to the public are achieved.”⁷ The challenge for the HIM professional is to engage in research and scholarship as opportunities arise. This article discusses the evolving role of research and scholarship in the HIM profession over the last 30 years. Research and scholarship activities of HIM faculty and practitioners are highlighted along with research and scholarship opportunities in support of the healthcare industry’s growing reliance on healthcare data and HIT.

Evolving Role of Scholarship in HIM

The discipline of HIM grew out of the need for individuals skilled in the management of patient and aggregate clinical data in the early part of the 20th century. It, along with a number of other health disciplines, evolved to “keep pace with rapid, social, economic, and political
changes coupled with advances in, and specialized use of, technology in healthcare." Part of this evolutionary process included transitioning to the status of "profession," which required a discipline to identify a code of ethical practice, establish formal academic programs, and define its body of knowledge. Codes of ethics were adopted, and academic programs, mainly at the two- and four-year academic levels, were established. A more daunting task for the health professions, however, was building a body of knowledge based on sound, systematic research that validated the discipline's scope of practice. Issues hindering this task were related to academic program levels (hospital-based, associate, and baccalaureate levels) with heavy reliance on discipline-specific faculty with large teaching loads and little or no background in research and scholarship. Faculty rarely possessed doctoral degrees or had the type of focused research agenda often required of colleagues in more traditional disciplines on campus.

However, in 1980, the National Commission on Allied Health Education reported the need for academic program faculty, especially in baccalaureate programs, to strengthen their commitment to research to stay competitive in academe. As issues of healthcare quality, cost, and outcomes arose, it became apparent that health professions needed to validate their scope of practice through research. This report laid the foundation for the movement of many health professions (physical therapy, occupational therapy, nursing, speech and hearing, etc.) toward advanced educational programming including entry-level and/or advanced master’s and doctorate-level programs. The report also initiated movement of allied health faculty to obtain doctoral degrees to support the research demands of the respective professions. The HIM profession was not immune to this shift in thinking. Table 1 provides a brief summary of key activities that have transpired since 1980 in support of the profession’s goal to develop its body of knowledge and validate its scope of practice through research and scholarship. A few highlights from the table are discussed in more detail below.

In 1980, the first independent peer-reviewed journal in the profession, *Topics in Health Information Management* (THIM), was launched to provide a venue for the publication of theoretical and practice-based articles on the management of healthcare information relevant to the knowledge base of health information managers. The journal was topical in orientation and served the profession for 23 years, ending in 2003. In 1992, the American Health Information Management Association (AHIMA) implemented the peer-reviewed *Journal of Health Information Management Research*, which transitioned into *Educational Perspectives in HIM* in 1998. In 2003, with the last issue of THIM, the AHIMA Foundation of Research and Education (FORE) assumed responsibility for *Educational Perspectives* and transitioned the journal into the online, scholarly, peer-reviewed journal *Perspectives in Health Information Management* (PHIM). The focus of PHIM is to encourage interdisciplinary collaboration between HIM professionals and others to support and promote the linkage of practice, education, and research to provide improvement in HIM processes and outcomes.

As publication venues emerged throughout the 1990s, FORE (now AHIMA Foundation) began work on establishing goals to strengthen research and scholarship support in the profession. Over the last two decades FORE has supported and promoted the following developments: a) grant-in-aid programs to support merit scholarship, dissertation research assistance, and faculty development and small research grants; b) identification of fundable research priorities (see Figure 1 for current priorities); c) implementation of an annual research training program; and d) establishment in 2009 of a newly constituted AHIMA Foundation that is "committed to establishing public and private collaborations to advance applied health services research."
Running parallel to FORE’s activities in the mid-1990s was the AHIMA Assembly on Education’s development of curriculum guides for reforming HIM education at the associate, bachelor’s, and master’s levels of education.\textsuperscript{13–15} Curriculum content related to research methodologies and biomedical research support was incorporated into the bachelor’s and master’s degree curricula for three main purposes: 1) to provide the knowledge and skills necessary for HIM professionals to practice in a research environment; 2) to foster the importance of HIM practice that is grounded in research and scholarship; and 3) to encourage HIM professionals to engage in research and scholarship as a part of their lifelong learning responsibilities. Since 2000, numerous research and scholarly projects have continued in support of graduate education, workforce development, and consensus-based best practices research. Overall, in the last three decades, much has transpired in regard to transitioning the HIM profession from a practice-based discipline to a profession whose practices are evidence-based as a result of research and scholarship. Key players in the pursuit of the profession’s drive to enhance its research and scholarship base are faculty and practitioners.

**Faculty and Practitioner as Scholar/Researcher**

Research and scholarship are typically conducted by academic faculty in a given discipline; however, there is a growing emphasis for faculty researchers to collaborate with practitioners and/or clinicians in order to transition basic or bench research findings to the bedside in a more efficient, cost-effective manner.\textsuperscript{16} In addition, HIM practitioners’ involvement in developing consensus-based best practices has lent itself to increasing collaboration with faculty researchers. From a historical perspective, the scholarly activities of HIM faculty, especially those teaching at the baccalaureate and graduate level, have steadily increased over the last 20 years.\textsuperscript{17} Brodnik originally surveyed HIM faculty in 1987 as part of a larger allied health study to characterize the research environment and assess the research and scholarly productivity, interests, and needs of allied health faculty, including HIM faculty.\textsuperscript{18} Results of this study revealed that HIM faculty, similar to faculty in the nine other disciplines surveyed, had limited research experience and scholarship output. This finding was similar to what nursing had experienced in the 1950s.\textsuperscript{19}

In 1998 the study was repeated for HIM faculty to determine if progress toward research and scholarship had occurred over the last 10 years. Results revealed a slight but steady increase in faculty research and scholarship between 1987 and 1998.\textsuperscript{20} In 2008, the study was repeated again, and results revealed that over the last 20 years HIM faculty have increased research and scholarly activities specifically in the areas of 1) grantsmanship; 2) funded projects; 3) books and peer-reviewed publications; and 4) peer-reviewed presentations at state and national professional association levels.\textsuperscript{21} One notable area of growth was in faculty textbook authorship, which supports the importance of scholarship in teaching and learning. Study results also revealed an increased number of HIM faculty with doctoral degrees and that faculty prefer to spend more time on research and scholarly activities but barriers such as teaching load, time, and limited funding sources hinder faculty research and scholarship productivity.\textsuperscript{22} However, as funding sources increase with the support of federal money, HIM faculty are encouraged to take the lead and forge collaborative research opportunities with others interested in the management and use of healthcare data and information.

Along with HIM faculty involvement in research and scholarship, HIM practitioners have been contributing to the growing knowledge base of the profession through the development of e-HIM practice councils and consensus-based best practices groups.\textsuperscript{23} AHIMA practice councils and e-HIM workgroups have provided valuable information to the industry and profession through the publication of numerous practice briefs that focus on data management and quality, data privacy and security, use and implications of technology, and clinical terminologies.\textsuperscript{24} An
important aspect of consensus-based best practices development is that practices are benchmarked, tested, evaluated, and documented through a systematic investigation process in order to provide best “evidence” for these practices.25 For example, in 2005 and 2006, Amatayakul and Work conducted three research studies on best practices in revenue cycle management, EHRs, and privacy compliance. These topics were chosen since they represented areas fundamental to HIM practice that had also undergone significant changes in the last several years.26 A summary of the methodology and findings of the studies are discussed in their article “HIM Best Practices: What Field Research Demonstrates,” which also discusses the importance of conducting best practices research as the HIM profession strives to keep pace with industry changes.27

**Applying HIM Practice in Research and Scholarship**

HIM faculty and practitioners possess a unique blend of professional, clinical, and research knowledge and skill sets that enable them to assume credible, participatory roles within interdisciplinary research teams. Bailey and Rudman discuss the expanding role of HIM professionals in research activities, data management, and information technology as related to evidence-based practice and medicine.28 They suggest that HIM professionals should become more integrally involved in research-related activities to further expand the knowledge base of the profession and lend additional credibility to the field of HIM. However, they also warn that to be successful in research and obtain funding for research projects, HIM researchers must become part of multidisciplinary teams.29 To illustrate their points, they discuss the involvement of HIM faculty and practitioners from the University of Mississippi Medical Center (UMMC) in the design and implementation of three research projects.30 The HIM professionals’ roles in these projects included involvement in the “process of writing a grant proposal and…planning the research project, coordinating efforts of the research team, and implementing research design.”31

Hyde supports Bailey and Rudman’s discussion of HIM involvement in research and scholarship in her article “HIM Roles in Clinical Research.”32 With emphasis on evidence-based medicine, outcome management, and pay-for-performance initiatives, HIM professionals can use their expertise in collecting, processing, coding, and analyzing data in clinical research.33 Meli and Sivo believe HIM professionals have the ability to collaborate and lead in clinical research activities since HIM professionals are involved in the collection of healthcare data through a variety of ways (e.g., clinical data repositories, data warehouses, cancer registries, coding systems, claims databases).34

HIM faculty researchers and practitioners often conduct research studies as part of a team and contribute important skills to any interdisciplinary research team effort. Following are examples of research studies conducted by HIM professionals in recent years that demonstrate independent and collaborative research and scholarly activities. Osborn collected HIM practice standards and productivity data in acute care facilities to build evidence-based high-quality HIM practices.35 Fenton’s study determined the relative effect of financial incentives, practice characteristics, and regulatory guidelines on the utilization of documentation and coding technology among physician practices employing HIM professionals.36 Watzlaf and colleagues assessed the effectiveness of ICD-10-CM in capturing public health diseases.37 Roth attempted to measure the actual benefits of standardization under HIPAA (Health Insurance Portability and Accountability Act) transactions and code sets;38 similarly, Houser and colleagues’ study intended to explore problems and solutions in the release of medical record information under the HIPAA privacy rule.39 Mancilla examined current practices used by acute healthcare facilities in response to medical identify theft in order to “assist some practitioners to update
their practices and provide information regarding future needs.\(^{40}\) Garrett and colleagues identified barriers for adoption of new technology in rural hospitals.\(^{41}\)

**HIM Research and Scholarship Opportunities**

In the e-HIM era, the importance of redefining HIM practices based on an expanded and updated body of knowledge related to technological advances in managing and controlling healthcare data and information cannot be overemphasized.\(^{42-44}\) As government and private organizations reinforce the importance of using HIT and data management to reconfigure and reform the delivery of healthcare, numerous opportunities exist for HIM faculty and practitioners to assume leadership roles and expand their involvement in collaborative research activities whenever possible. For example, from the federal government standpoint, the Agency for Healthcare Research and Quality (AHRQ) has awarded over $166 million to support grants and awards that foster and stimulate HIT.\(^{45}\) The research reported by Bailey and Rudman is an example of AHRQ-funded research.\(^{46}\) In addition to supporting HIT, the agency supports health services research related to comparative effectiveness, prevention and care management (evidence-based practices), the value of healthcare, patient safety, and innovations/emerging issues.\(^{47}\) Every one of these topics can be supported by the knowledge and skills of HIM professionals in data management, quality improvement, privacy and security, project management, and coding and data analysis, to name a few.

Another example is the research agenda of the National Institutes of Health (NIH). In 2002, the NIH implemented a “roadmap” for more efficient and productive medical research in the 21st century.\(^{48}\) One aspect of the roadmap focused on reengineering the clinical research enterprise to include partnerships between communities and academic researchers, developing new paradigms for how clinical research information is recorded, and encouraging the use of modern information technology platforms for research.\(^{49}\) Subsequently, in 2006 the NIH granted clinical and translational science awards (CTSAs) to academic medical centers as part of its roadmap design. To date, 24 academic medical centers have received awards, with an NIH goal of 60 institutions receiving awards by 2012. All institutions awarded CTSAs must have an informatics component as part of their grant activities since clinical and translational research requires the use of information technology for computational purposes and to manage large data sets and databases such as clinical data repositories.\(^{50}\) These massive awards support HIT activities to which HIM faculty and practitioners can lend their expertise as well as other CTSA areas that include clinical research ethics (encompassing privacy and security issues), clinical research management, program evaluation, and statistical support. What is unique about the CTSAs is that they offer competitive research funding opportunities to individuals within the medical centers, thus providing potential funding opportunities for HIM faculty and graduate students as well as HIM practitioners working within these centers.

As part of the federal government’s American Recovery and Reinvestment Act of 2009 (the stimulus act), the NIH opened competition for a series of challenge grants designed to focus on gaps, scientific opportunities, new technologies, data generation, and research methods in 15 different areas.\(^{51}\) A review of the areas and accompanying challenge topics revealed that the knowledge and skills of HIM professionals were applicable to at least six funding areas: behavior, behavioral change, and prevention; bioethics; comparative effectiveness research; enabling technologies; health disparities; and information technology for processing healthcare data. Involvement in NIH funding does require collaboration and the opportunity for HIM professionals to seek funding in research support as a member of a collaborative team. Several sections of the stimulus act also provide exceptional opportunities for HIM-related research.
Funding will be available related to Title XIII of the act, the Health Information Technology for Economic and Clinical Health (HITECH) Act, and Subtitle D: Privacy. In addition, opportunities will be available for numerous programs calling for research into multidisciplinary use of HIT in schools; training and dissemination of information on HIT best practices as related to EHRs and provider care; participation in demonstration projects to integrate HIT into clinical education; participation in extension programs and centers; and assistance in expanding or establishing medical or health informatics programs.\textsuperscript{52}

From a private organization standpoint, the interdisciplinary Committee on Engaging the Computer Science Research Community in Health Care Informatics of the National Research Council recently published a report on its two-year study that was designed to “identify how today’s computer science-based methodologies might be applied more effectively to health care and to identify the limitations in those methodologies that might be overcome by additional research and development.”\textsuperscript{53} The committee recommends that government institutions refocus investment in HIT to embrace measurable healthcare quality improvement as the driving rationale for HIT adoption efforts. In addition, the committee recommends that interdisciplinary research should occur and be supported “in three critical areas: (a) organizational systems-level research into the design of health care systems processes and workflow; (b) computable knowledge structures and models for medicine needed to make sense of available patient data including preferences, health behaviors, and so on; and (c) human-computer interaction in a clinical context.”\textsuperscript{54} Since aspects of HIM practice may touch on each of these critical areas, the HIM professional may find areas of mutual research interest with both health informatics and computer science researchers.

Opportunities for research and scholarship are available to the HIM professional in every aspect and setting of HIM practice. As the healthcare system strives to deliver safe, quality, cost-effective, and efficient healthcare, it will continue to rely on information technology to manage, analyze, and disseminate healthcare information and knowledge. The challenge for HIM professionals is to continually engage in research to determine the effectiveness of new systems, procedures, and/or programs and to bring the results of such inquiry into the daily practice of HIM through independent or collaborative research and scholarship efforts.

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Notes


4. Ibid.


10. Ibid.


21. Brodnik, M. “Scholarship and Research of Health Information Management Faculty: A National Survey.”
22. Ibid.
24. Ibid.
26. Ibid.
27. Ibid.
29. Ibid.
30. Ibid.
31. Ibid.
33. Ibid.
38. AHIMA. “Evidence-based HIM Research—A FORE Strategic Initiative.”
40. AHIMA. “Evidence-based HIM Research—A FORE Strategic Initiative.”
42. Fox, L. A., and P. T. Sheridan. “Formal Research Is the Path to Developing Deeper and Broader Levels of Competence, and It’s the Next Logical Step in Redefining HIM.”
52. Ibid.
54. Ibid.
Figure 1


- **Workforce**: Shortages, current and future best practices in HIM resources and shared expertise from HIM professionals

- **Best Practices**: Identification and dissemination of HIM field practices through scientific evaluation may yield new policies along the lines of incentive programs such as paying for quality for HIT/HIM implementation in medically underserved areas; effective and efficient management practices of electronic health

- **HIM and EHR/EMR Workflows**: Re-examining and re-engineering workflow processes needed for greater patient safety and operational efficiencies in an environment where unprecedented health information dissemination and uptake, is combined with rapid diffusion of health information technology

- **Electronic Health Records**: Unintended clinical consequences/patient safety; legal and regulatory issues and implications around electronic health information exchange such as variation in local and national security measures (authentification, access) and patient identification standards

- **National Standard Terminology and Coding Classification Systems**: Inform future development and evolution of classifications such as ICD-10-CM, CPT, SNOMED CT; and identifying promising coding accuracy practices towards better management of health information

- **Personal Health Records**: Promoting and increasing the consumer awareness through research of the importance of managing health information

# Table 1

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<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td>1980</td>
<td>The National Commission on Allied Health Education reports that allied health faculty must strengthen their commitment to research to stay competitive in academe.</td>
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<td>1980</td>
<td><em>Topics in Health Information Management</em> (THIM) began to address the need for scholarly, peer-reviewed journal in health information management.</td>
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<td>1987</td>
<td><em>HIM Educator Research and Scholarship Productivity</em> was the first study conducted on this topic.</td>
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<td>1992</td>
<td>AHIMA launches research journal, the <em>Journal of Health Information Management Research</em>.</td>
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<tr>
<td>1995</td>
<td>AHIMA reenergizes Foundation of Research and Education (FORE), appoints Research Committee, supports grant-in-aid program to stimulate research activities.</td>
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<td>1995</td>
<td>Assembly on Education publishes curriculum guides for entry-level HIM education at baccalaureate and master’s level that require content in research methods and biomedical research support.</td>
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<td>1995</td>
<td>Assembly on Education passes resolution establishing the annual Leslie Blide Research Forum.</td>
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<td>1996</td>
<td><em>Vision 2006 Goals</em> identifies the goal that HIM be well grounded with standards of practice supported by applied research.</td>
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<td>1997</td>
<td>AHIMA establishes position of director of research.</td>
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<td>1998</td>
<td>Research journal transitions to new research journal, <em>Educational Perspectives in HIM</em>.</td>
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<td>1998</td>
<td>Second study conducted on HIM educator research and scholarship productivity.</td>
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<td>1999</td>
<td>AHIMA reinstitutes formal Research Committee, which transitions to FORE Research Committee in 2007.</td>
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<td>1999</td>
<td>FORE sets goal to build on strategic efforts of strengthening research and scholarship support.</td>
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<td>1999</td>
<td>“White Paper on Health and Well-Being of Professional Education in HIM” sets five strategic goals, one of which is to “increase research productivity.”</td>
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<td>1999</td>
<td><em>Evolving HIM Careers: Seven Roles for the Future</em> addresses evolving role of HIM professional as research specialist.</td>
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<td>2001</td>
<td>FORE institutes grant-in-aid program.</td>
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<td>2002</td>
<td><em>Information to Design Sustainable HIM Curriculum Transformation</em> study supports graduate education in HIM and the need for HIM researchers.</td>
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<td>2003</td>
<td>AHIMA commissions e-HIM work groups to produce consensus-based best practices in key areas of practice, subsequently laying foundation for further efforts in evidence-based best practice research activity.</td>
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<td>2003</td>
<td>FORE increases grant support, establishes research agenda priorities.</td>
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<td>2003</td>
<td>Last issue of THIM: <em>Educational Perspectives in HIM</em> transitions to online, peer-reviewed journal <em>Perspectives in Health Information Management</em>.</td>
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<td>2004</td>
<td><em>Data for Decisions: The HIM Workforce and Workplace</em> research study identifies the professional role of researcher for HIM professionals as result of technological changes in HIM.</td>
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<td>2007</td>
<td>FORE Research Summit establishes focused research agenda for applied HIM research.</td>
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<td>2007</td>
<td><em>Vision 2016 Blueprint for Quality Education in HIM</em>’s consideration of HIM at the master’s level reinforces need for research and scholarship in the HIM profession.</td>
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<td>2007</td>
<td>FORE hosts first Annual HIM Research Training Institute.</td>
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<td>2008</td>
<td>Second Annual HIM Research Training Institute takes place.</td>
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<td>2008</td>
<td>Third <em>HIM Educator Research and Scholarship Productivity</em> study conducted.</td>
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<tr>
<td>2009</td>
<td>Third Annual HIM Research Training Institute scheduled.</td>
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<td>2009</td>
<td>FORE changes name to AHIMA Foundation, establishes a policy and research institute, and appoints program director for institute.</td>
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