The Changing Landscape Of HIT: What This Means For Early Careerists

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EARLY CAREERISTS COMMUNITY

Learning Objectives

- Examine the impact of data and technology on HIT careers
- Illustrate the skills that employers are seeking
- Explain how early careerists can prepare themselves to move into or advance in HIT roles

The Impact of Technology on the Workforce

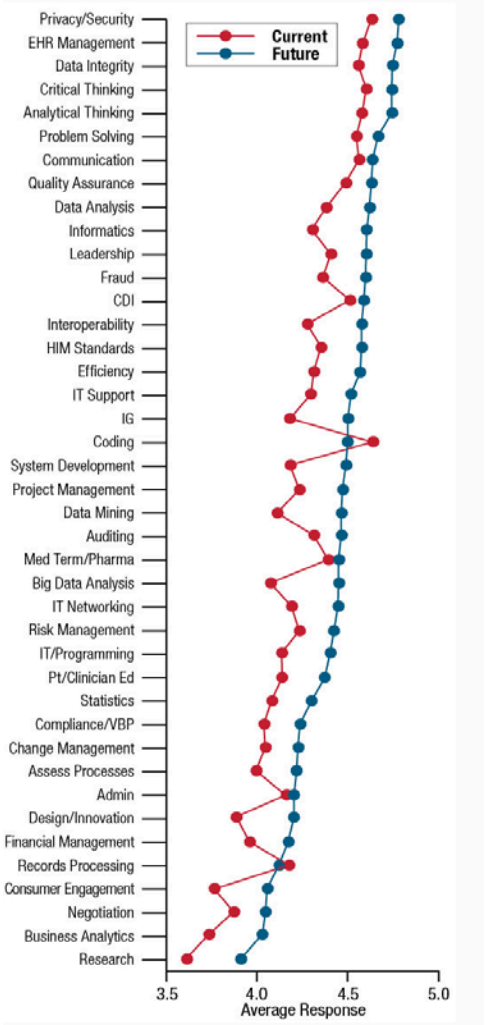
- Changes in HIT careers have happen rapidly in this age of technological development
- Implementation of the electronic health record (EHR) has been the largest contributor to the changes
- The Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 was enacted as part of the American Recovery and Reinvestment Act (ARRA)

Source: http://www.hitechanswers.net/about/about-arra/

Data is Changing HIT Careers

2015 workforce study defined how health information management (HIM) is shifting to meet future needs and what knowledge, skills, education, and credentials they need to be successful.

- Anticipate a lower percentage of time on diagnosis and procedural coding in the future
- Leadership, teaching, and informatics identified as tasks that will increase most significantly.



Sandefer, R., Marc, D.M., Mancilla, D., & Hamada, D. (2015). Survey Predicts Future HIM Workforce Shifts: HIM Industry Estimates the Job Roles, Skills Needed in the Near Future. Journal of AHIMA, 86(7), 32-35. Available at: http://library.ahima.org/doc?oid=107697#.Ww2ucFMvwW8

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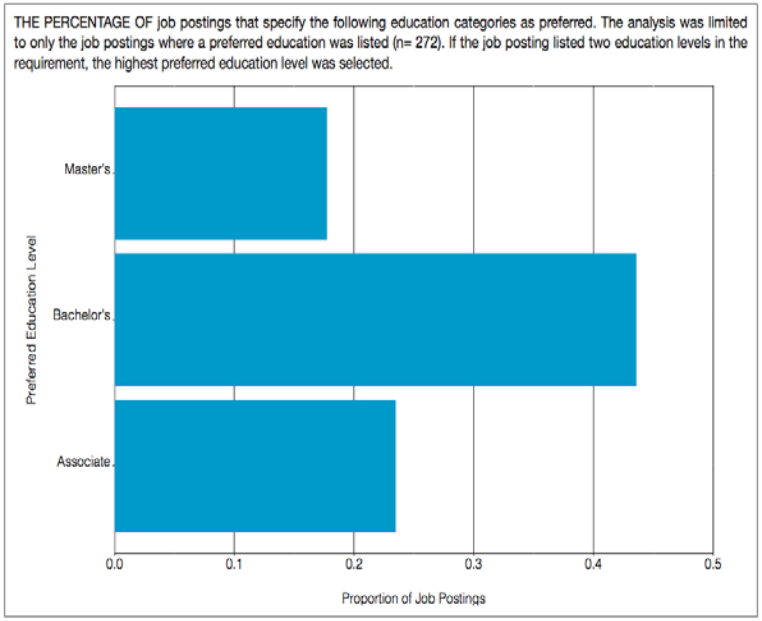
Source: http://library.ahima.org/doc?oid=107697#.WS4bUILMxE4

Data is Changing HIT Careers

- Associate: 22.5% 61
- Bachelor's: 44.0% 120
- Master's: 18.2% 50
- Significantly greater percentage of job postings that require a bachelor's degree ($p<0.001$)



Marc, David; Robertson, Janet; Gordon, Leslie; Green-Lawson, Zakevia D; Gibbs, David; Dover, Kayce; Dougherty, Michelle. "What the Data Say About HIM Professional Trends" *Journal of AHIMA* 88, no.5 (May 2017): 24-31.

Data is Changing HIT Careers

- Entry-level jobs had a significantly greater percentage of postings related to operations and medical record administration ($p<0.001$)
- Mid-level jobs had a significantly greater percentage of postings related to IT/infrastructure ($p<0.001$), operations and medical record administration ($p<0.001$), and revenue cycle management coding and billing ($p<0.001$)
- Advanced level jobs had a significantly greater percentage of postings related to informatics and data analysis ($p=0.04$) and operations and medical record administration ($p<0.001$)
- Master level jobs had a significantly greater percentage of postings related to operations and medical record administration ($p<0.001$)

Data is Changing HIT Careers

- Master level jobs had a significantly greater percentage of postings related to operations and medical record administration ($p<0.001$)

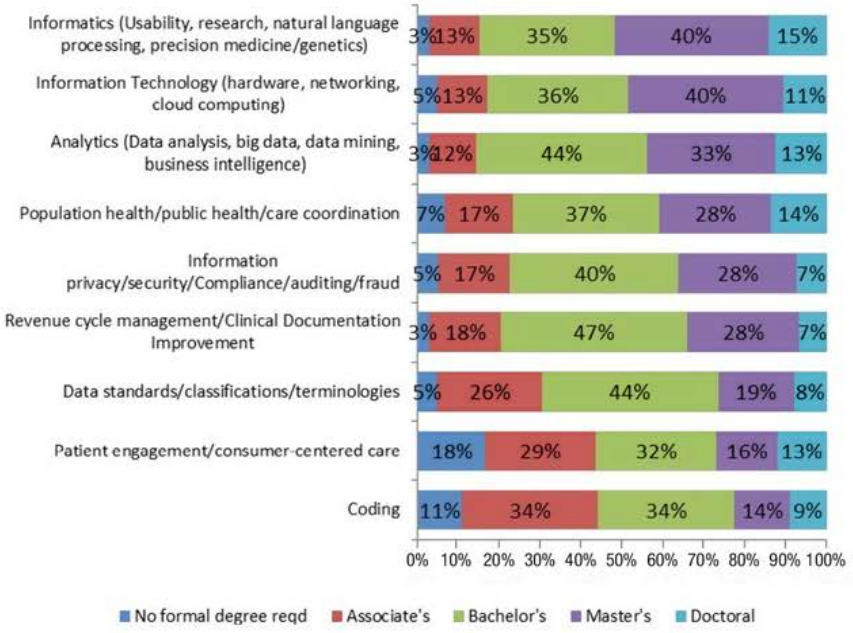
THIS TABLE DISPLAYS the percentage of job postings that meet the criteria of the six job categories and skill levels specified in the AHIMA Career Map.

Job Category	Entry-level	Mid-level	Advanced	Master	JOB CATEGORY TOTAL
Compliance/Risk Management	0.24%	0.24%	0.72%	0.00%	**1.20%**
Education/Communication	0.00%	0.00%	1.92%	0.48%	**2.40%**
Informatics/Data Analysis	0.00%	1.92%	4.08%	0.00%	**6.00%**
IT/Infrastructure	0.00%	6.00%	0.24%	0.00%	**6.24%**
Operations Medical Records Administration	7.19%	51.80%	8.15%	8.15%	**75.29%**
Revenue Cycle Management Coding and Billing	0.00%	8.39%	0.48%	0.00%	**8.87%**
SKILL LEVEL TOTAL	**7.43%**	**68.35%**	**15.59%**	**8.63%**	**100%**

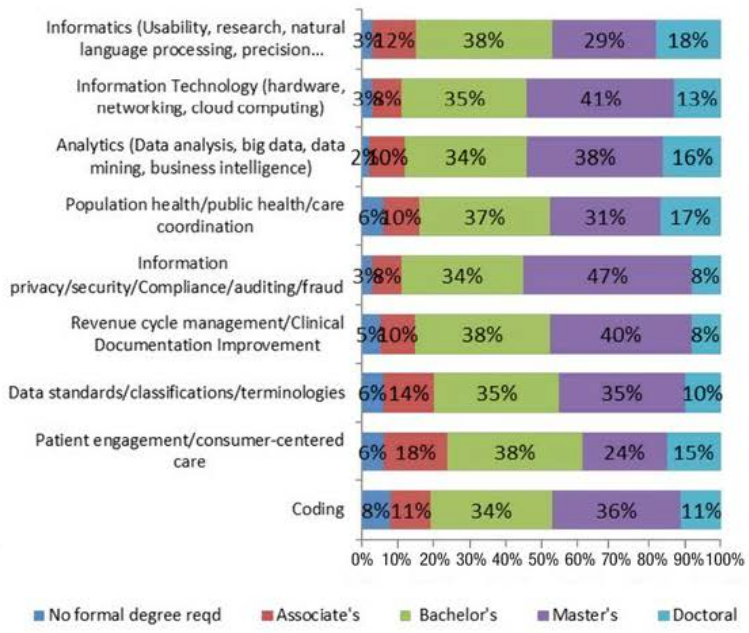
Data is Changing HIT Careers

THE FOLLOWING QUESTION was posed to market research participants: "Next you will see 2 short lists of HIM skills and competencies that some have identified as necessary to align with their future healthcare information management needs. For each skill, please indicate the education level you feel would best prepare a hiring candidate with that particular skill."

Summary of Education Level Needed for Particular Skill (Among Total Clinical)



Summary of Education Level Needed for Particular Skill (Among Total Non-Clinical)



Sandefer, RH (2018). New market research supports HIM Reimagined's call for professional adaptation. Journal of the American Health Information Management Association, 89(5), 20-23. Available at: http://bok.ahima.org/doc?oid=302487#.WwciQUgvxdg

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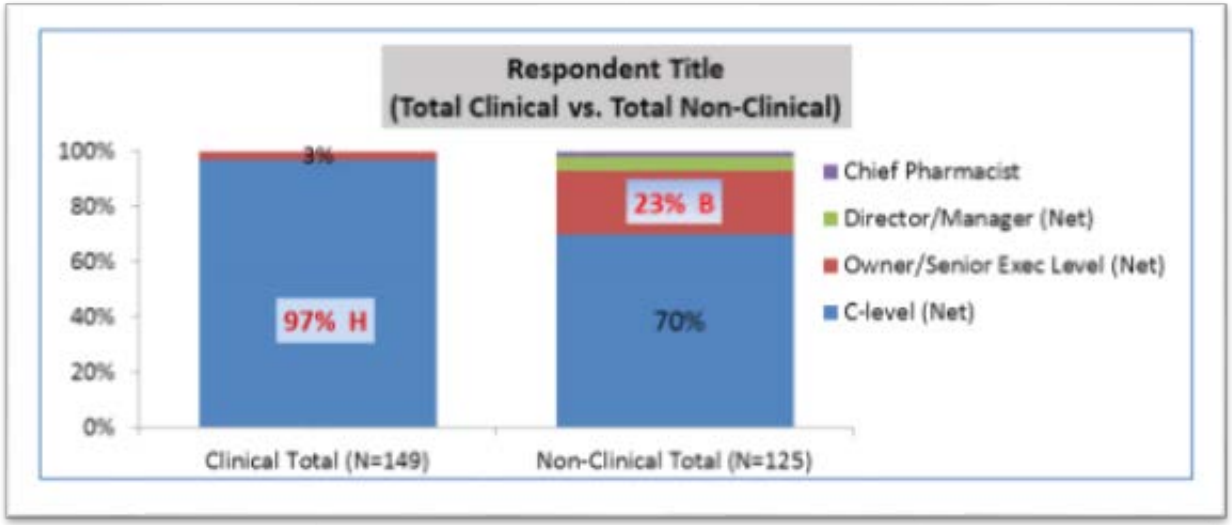
- The Clinical segment consists of Hospitals and Non-Hospitals (medical groups, alternative living facilities, government community health centers)
- The Clinical sample includes a mix of small, medium, and large hospitals as well as a mix of those located in rural, suburban, and urban areas
- The Non-Clinical segment consists of IT vendors, Clinical research companies, MCO/health insurance companies, and independent retail pharmacies



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Presented with a list of information and technology priorities, Provider and Vendor respondents were asked to indicate using a seven-point scale (1 = "not a priority"; 7 = "essential priority"), the extent to which each issue would be a priority in the coming year.

Table 4: Vendors – Mean Scores (2019)

Based on a 1 to 7 scale where 1 = "not a priority"; 7 = "essential priority"

Information and Technology Priority	Vendors
Cybersecurity, Privacy, and Security	5.38
Improving Quality Outcomes Through Health Information and Technology	5.35
Data Science/Analytics/Clinical and Business Intelligence	5.05
Clinical Informatics and Clinician Engagement	4.95
Consumer/Patient Engagement & Digital/Connected Health	4.95
Health Information Exchange, Interoperability, Data Integration and Standards	4.92
Process Improvement, Workflow, Change Management	4.73
User Experience, Usability and User-Centered Design	4.73
Healthcare App and Tech Enabling Care Delivery	4.49
Population Health Management and Public Health	4.46
Culture of Care and Care Coordination	4.32

Observation: **"*Cybersecurity, Privacy, and Security*" and "*Improving Quality Outcomes Through Health Information and Technology*" are shared top priorities by Vendors and Providers.**

Implication: **The synergies emulating from a shared understanding of top priorities can be leveraged to generate significant change on the selected issues.**

HIMSS (2019). 2019 HIMSS U.S. Leadership and Workforce Survey. Available at: https://www.himss.org/sites/himssorg/files/u132196/2019_HIMSS_US_LEADERSHIP_WORKFORCE_SURVEY_Final_Report.pdf

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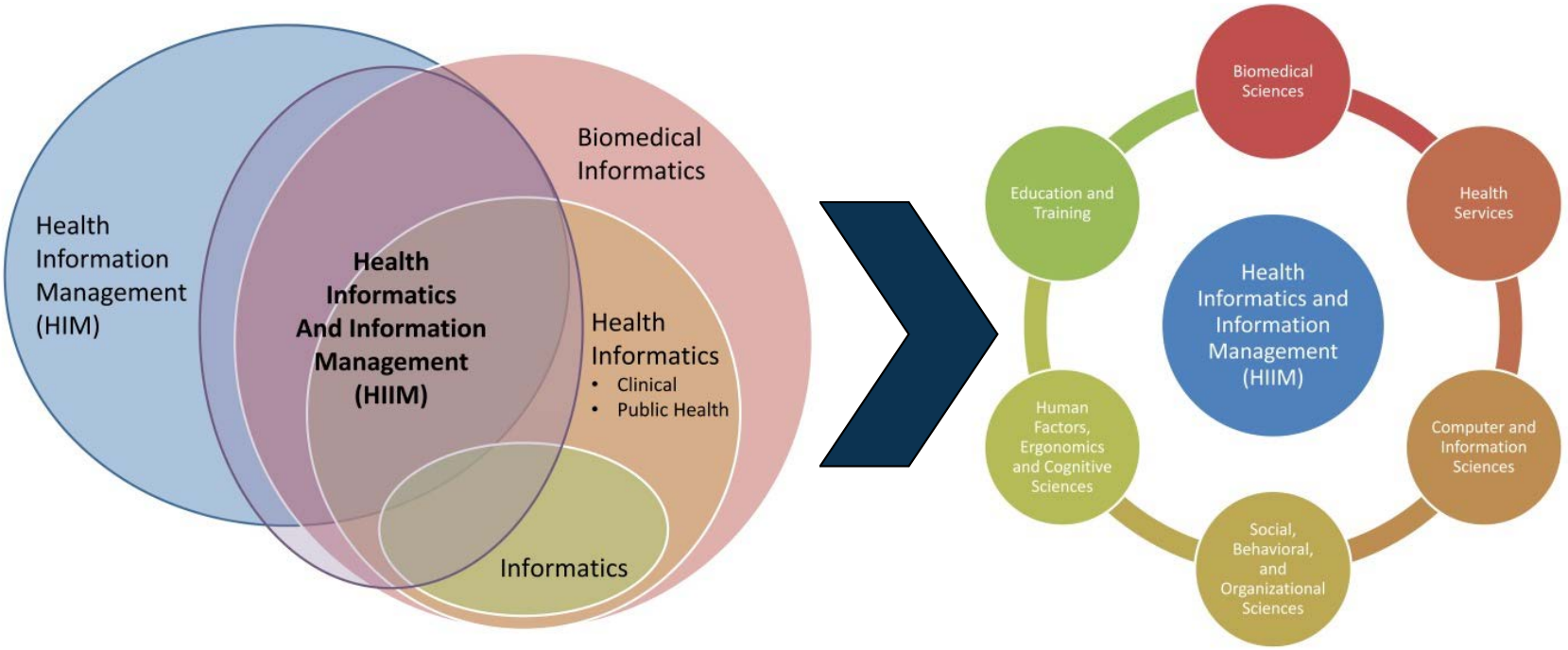
Table 5: Providers – Mean Scores (2019)

Based on a 1 to 7 scale where 1 = "not a priority"; 7 = "essential priority"

Information and Technology Priority	Hospitals	Non-Acute	Providers
Cybersecurity, Privacy, and Security	5.81	5.43	5.69
Improving Quality Outcomes Through Health Information and Tech	5.28	5.13	5.23
Clinical Informatics and Clinician Engagement	5.24	4.90	5.14
Culture of Care and Care Coordination	4.92	4.94	4.93
Process Improvement, Workflow, Change Management	5.03	4.61	4.90
User Experience, Usability and User-Centered Design	4.86	4.94	4.88
Data Science/Analytics/Clinical and Business Intelligence	4.91	4.33	4.73
Leadership, Governance, Strategic Planning	4.90	4.18	4.68
Safe Info and Tech Practices for Patient Care	4.62	4.67	4.63
HIE, Interoperability, Data Integration and Standards	4.62	4.22	4.50
Consumer/Patient Engagement & Digital/Connected Health	4.80	3.64	4.44

Convergence of Disciplines

Shared knowledge concepts between HIM and HI



Gibson, C. J., Dixon, B. E., & Abrams, K. (2015). Convergent evolution of health information management and health informatics: a perspective on the future of information professionals in health care. *Applied clinical informatics*, *6*(1), 163.

Jobs Related to Informatics

EU Role(s) (English)	US Role(s)	Definition	Domain	Role Type	Level	Service Category
Administrative Assistant in Clinical Informatics	Administrative Assistant in Clinical Informatics	Administrative assistants in clinical informatics could work in a variety of areas. An example could be supporting the Informatics Learning Networks (ILN) and coordinating training for electronic health records implementations, including scheduling, classroom and media management, and results reporting. ILNs provide networking and continuous professional development opportunities for clinicians and other healthcare staff. They offer a variety of support, including seminars, small focused learning groups and web support. The informatics administrative assistant may also coordinate, record and organize workflow process documentation and compile results of informatics surveys or analyses.	Informatics	Operational-Technical	Basic	Ancillary
Health Librarian Assistant	Assistant Health Librarian	The Library Assistant, under general supervision, performs duties requiring a good working knowledge of the policies and procedures of the hospital library and basic knowledge of related services. Duties include assisting library customers in the use of various electronic resources, conventional library materials and office equipment; setting up and maintaining serials and monograph control records and related activities; and performing a variety of duties to support effective library operations	Informatics	Operational-Technical	Basic	Ancillary
Audit Facilitator	Audit Specialist	The Audit Specialist is responsible for assisting the Audit Officer as directed; conducts financial, operational and compliance audits for the healthcare organization. Examines the accuracy and completeness of records and procedures for internal control to safeguard organizational assets and ensures areas of the organization are in compliance with policies, procedures, regulations and laws. Reports audit findings to the Audit Officer and makes recommendations to mitigate risk. Responsible for performing routine daily tasks and participates in special department projects.	Informatics	Operational-Technical	Intermediate	Ancillary
Clinical Bioinformatics Specialist	Bioinformaticist, Clinical	Bioinformatics Scientists conduct research using bioinformatics theory and methods in areas such as pharmaceuticals, medical technology, biotechnology, computational biology, proteomics, computer information science, biology and medical informatics. May design databases and develop algorithms for processing and analyzing genomic information, or other biological information.	Informatics	Professional	Intermediate	Ancillary
Clinical Nurse Specialist	Clinical Nurse Specialist, Informatics	The Clinical Nurse Specialist of Informatics integrates nursing science, computer science, and information science to manage and communicate data, information, and knowledge in nursing practice. The CNS-Informatics has responsibility for functional leadership and day-to-day operational support of Clinical Information Systems utilized in patient care areas. This position will serve as a liaison in system initiatives to all patient care disciplines and the IT department as it relates to clinical information systems. Typically require a bachelor's degree in area of specialty and at least 3 years of experience in the field or in a related area; requires certification as a registered nurse (RN).	Informatics	Professional	Advanced	Nursing
Informatics Analyst	Clinical Informatics Coordinator	The Clinical Informatics Coordinator is responsible for the implementation and utilization of information systems required for patient care initiatives. Also may coordinate activities and reports of nursing clinical informaticists. May participate in evaluation of applications or vendors to best meet the needs of the organization. Participates in or provides technical training, systems testing, and support to end users. Familiar with a variety of informatics concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals.	Informatics	Operational-Technical	Basic	Ancillary
Informatics Analyst	Clinical Information/Data Analyst	Clinical data analysts work to help a research team accurately and appropriately capture and record data for scientific study and validation. These professionals ensure that experiments or protocols are completed consistently and that there is verifiable scientific data to back the research. They develop, design, implement and manage data tracking systems and perform statistical analysis to determine the efficiency of clinical trials and evaluate the resulting data. They are often responsible for the integrity of data, data systems, reports, adequacy and accuracy of the clinical studies/databases.	Informatics	Operational-Technical	Intermediate	Ancillary
Clinical Application Specialist	Clinical Workflow Analyst	The Clinical Workflow Analyst utilizes practices, policy & procedures, and tools for analysis of manual and automated workflows. Develops guidelines, documentation, and methodologies to create the framework to move clinical processes into the implementation phase. Uses knowledge of clinical activities, tasks and practice, deliverables and techniques for implementing new or enhanced processes using information technology. The analyst performs regular data integrity checks, and works closely with clinicians and IT on all system implementations, upgrades and testing (beta development, functionality testing, movement into production environment).	Informatics	Operational-Technical	Intermediate	Ancillary
		The Director of Medical Informatics or Medical Director of Health Informatics is responsible for ensuring				

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http://hitcomp.org/roles/

Jobs Related to Informatics

Health Informatician	Health Informaticist	Health informaticists are responsible for overseeing clinical application systems and databases. The job can include duties related to all aspects of the system, from implementation and modification, to training and solving any problems that might arise with the software itself. Health informaticists are often charged with developing and creating an electronic system to document all patient medical information, commonly called an electronic medical record or electronic health record. Health informaticists can be clinical or nonclinical. Health informaticists must be expert in concepts such as business process and clinical workflows, computer science, medication administration and delivery, health information organization, clinical decision support, medical image processing, and organizational and sociological issues.	Informatics	Operational-Technical	Intermediate	Ancillary

Hard vs. Soft Skills

Hard Skills

- Databases
- Data preparation and manipulation
- Analytics
- Data visualization
- Data mining
- Data management
- Understanding of the healthcare setting

Soft Skills

- Problem solving
- Critical thinking
- Communication
- Teamwork
- Work ethic
- Attitude
- Time management

Importance of Soft Skills

- Students with stronger hard and soft skills are likely to survive and succeed professionally
- Students who succeeded in the workplace have the right attitude, personality, and behavior
- Employers tend to "recruit for attitude and train for skill"
- Students should understand the basic expectations of employers in order to present themselves accordingly
- Both faculty and students must be open and receptive to honing soft skills in order to survive and succeed in the corporate world

Tell me and I forget. Teach me and I remember. Involve me and I learn.

- Benjamin Franklin

Rao, M. S. (2014). Enhancing employability in engineering and management students through soft skills. *Industrial and Commercial Training, 46*(1), 42-48. doi:http://dx.doi.org.akin.css.edu/10.1108/ICT-04-2013-0023

Considerations to Advance Your Career

- Credentials
- Need for advancements in education
- Trainings and conferences
- Networking opportunities
- Social media presence
- Professional associations (local and national)
- Resume building
- Transferrable skills

The importance of education and training

- Initiate skill advancement through:
  - Formal education (Degree programs)
  - Free courses (MOOCs)
  - Workshops (Local or national)
  - Webinars
  - Trial and error

Topics to consider for skill advancement

- Technology and data
  - Analytics/data science, software development/programming, privacy/security
- Project Management
  - Process improvement, setting expectations/timelines, management tools
- Leadership
  - Managing people/team, conflict resolution, strategic planning, change management
- Health humanities
  - Holistic view of healthcare

How to sell yourself

- LinkedIn
  - Well rounded profile
  - 500+ connections
- Networking
  - Event spaces
  - Professional Organizations
  - Conferences

Final Remarks

- We will continue to collect massive amounts of healthcare data
- There is a need to find better ways of using that data to benefit healthcare organizations
- HIT careers are pivoting to cover this need by advancing technical skills of graduates
- You are positioned to fill the need in healthcare to advance the use of data while also advancing HIT careers

Questions?

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