

INSTITUTE FOR INNOVATIONS IN MEDICAL EDUCATION

YEAR IN REVIEW

2015

WELCOME MESSAGE



WELCOME



Marc M. Triola, MD



Crystal Mainiero

Founded in 2013, the Institute for Innovations in Medical Education (IIME) is a multidisciplinary team of faculty educators, education scientists, informaticians, and developers who apply the science of education and informatics to transform, teaching, learning and assessment at every level of NYU Langone Medical Center. IIME combines advances in education strategies with new informatics solutions to connect the three missions of NYU Langone - to serve, teach, and discover - resulting in a research and innovation program that is translational and provides direct benefits to our patients. With 22 full-time staff and more than 30 affiliate faculty, IIME is one of the largest medical education innovation groups in the country.

Two years ago, Robert I. Grossman, MD and Steven B. Abramson, MD announced the launch of the Institute for Innovations in Medical Education.

This report commemorates that milestone and recognizes the growth and accomplishments of the outstanding community we have here today.

In the past 24 months, there have been many important proceedings:

- Reorganizing IIME into three full divisions to better drive our innovation mission and serve the needs of the NYU Langone Medical Center community.

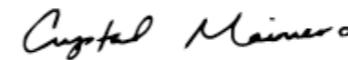
- Inducting 22 Faculty Fellows and 5 Faculty Scholars representing 14 different academic departments into the initial cohort of our faculty membership program. In 2016, we welcome five new Fellows highlighted in this report.
- IIME faculty are either Principal Investigators or key collaborators on all three of NYU School of Medicine's major education consortium grants: the [American Medical Association Accelerating Change in Medical Education Consortium](#), the [Association of American Medical Colleges Entrustable Professional Activities Consortium](#), and the [Josiah Macy Jr. Foundation's Consortium for Accelerated Pathway Programs in Medical Education](#).

- In addition to successful grant awards, IIME faculty and staff have published several manuscripts in the top education journals, made dozens of presentations at national conferences, and chaired numerous national committees. A listing of many of them is available [here](#).
- IIME co-chaired a national conference sponsored by the Josiah Macy Jr. Foundation entitled “Enhancing Health Professions Education Through Technology: Building a Continuously Learning Health System.” As a result, conference participants made several recommendations for how educational technologies can improve and transform not only our health professions education system, but the health care delivery system as well. The full report is available [here](#).
- IIME and the Office of Medical Education have co-sponsored the two most recent Annual Education Retreats which have become major events for the NYULMC education community.
- IIME faculty and staff have launched numerous new educational initiatives, including: the [Learner iPad Program](#), popular [educational ebooks](#) for undergraduate, graduate and continuing medical education, new 3D educational technology for learning pediatric cardiac surgery, new iPad-based assessment tools, a completely revamped set of powerful educational dashboards to drive quality improvement, and many more.
- IIME has launched several consulting services to support educators in the areas of: integrating education technology, IRB support for education research, the Digital Press for faculty publishing of educational books and resources, biostatistics and methods support, and evaluation design. Learn more about these services [here](#).

We are humbled to work with such a talented group of staff, faculty and collaborators and look forward to another year of success and innovation at NYU School of Medicine.

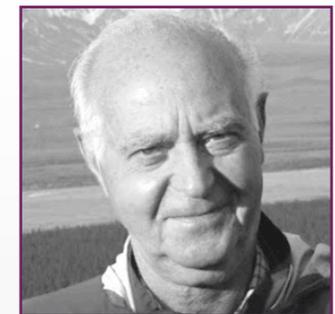


Marc Triola, MD
Associate Dean for Educational Informatics
Director, IIME

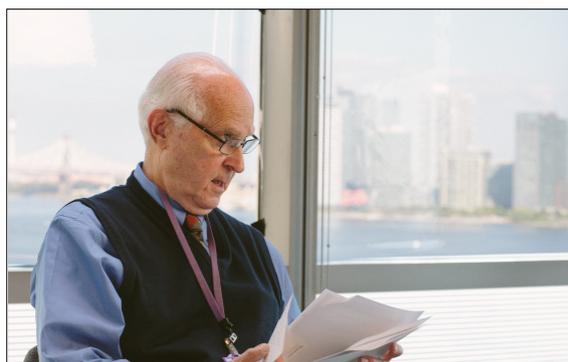


Crystal Mainiero
Executive Director, IIME

IN MEMORIAM
MARTIN NACHBAR, MD



IN MEMORIAM



Martin S. Nachbar, MD
1937-2015

Martin S. Nachbar, MD, or Marty as he liked to be called, was an esteemed friend, mentor, and colleague to several generations of faculty, students, and staff at NYU. Those who were fortunate enough to know him learned a great deal. Marty inspired and doggedly pushed his mentees to think critically and to never accept the status quo. He was extremely passionate about the pursuit of innovation in all aspects of teaching and learning and expected no less from those he collaborated with.

Marty was a person of substance and grit: his integrity, honesty, and humility were tangible things. Always quick to point out the weak links of an argument, he maintained an impenetrable optimism and enthusiasm for the innovation and transformation that he truly believed were possible.

He was the first to offer his critique whenever changes were proposed, and the first to volunteer to help see those changes through for the betterment of the institution.

It is impossible to overstate Marty's impact on medical education. He was a pioneer in the use of computer-based medical education and it was his courage and brilliance that led to the invention of the field of educational informatics in medicine. The work we do each day at the Institute for Innovations in Medical Education stands upon his shoulders.

We all owe so much to Marty. He strove to create an environment that would nurture all of us to explore and invent the future of medical education and he did it with genuine compassion, kindness, and unwavering support. He was never without a smile on his face and he always made time for those who needed it.

It is important that we remember him and honor his legacy. Going forward, the annual education keynote will be named the Martin S. Nachbar Memorial Lecture. Also in his name, a medical student will be awarded for the exemplary use of innovative technology and informatics in medical education.

For us at IIME, we will continue on the path that he started for us.

JUNE 17, 2015

Memorial event with family, colleagues and friends



IIME
IN 2015



Mission

To address the challenges of medical education in order to advance the health of our patients through world-class innovations in computer-assisted instruction, technology-enhanced assessment, and learning analytics. IIME supports the goals of NYU School of Medicine (NYUSOM) through the discovery, development and validation of new information technologies for undergraduate and graduate medical education and through academic collaborations focusing on novel research and curricular transformation.

IIME Founding Principles

To foster systems that enable personalized medical education across the continuum of medical education and training. This can be achieved by harnessing informatics and educational knowledge discovery support systems that create a medical education experience tailored to each individual student and resident.

To use educational big data to drive new teaching, learning, evaluation and assessment models that ensure the quality of educational experiences across NYULMC, in the full variety of health care settings and systems in which we practice. Akin to sequencing the 'educational genome' of our learners, a big data approach to education can provide unparalleled insight into the development of expertise within each unique learning.

To integrate the education and clinical missions of NYULMC to create a system of continuous learning, embedding data analytics that promote positive action by students, faculty, and their collaborators. By creating a curricula for our learners that is based on real clinical data of our practices, our teaching can be continuously aligned with the future demands of practice.

Goals

-
- To foster excellence in medical education by pursuing innovative models for teaching, learning and assessment;
-
- To improve the skills of teachers, the performance of students, and the health of our patients by using 'big data' to drive insight, research and innovation in medical education;
-
- To invent new technologies and novel informatics-based educational solutions;
-
- To integrate the education and clinical missions of NYULMC; and
-
- To develop teachers for the 21st century.

Division of Educational Informatics

The Division of Educational Informatics (DEI) has established a national reputation and has played a key role in shaping the future of educational technology in health professions education. It has been funded by the National Institutes of Health, the Integrated Advanced Information Management Systems Program, the National Science Foundation Advanced Learning Technologies Program, the Josiah Macy Jr. Foundation, and the U.S. Department of Education.

Section on Education Data

In 2015, a new Section on Education Data within DEI was established and charged with leading the transformation to a data-driven culture by delivering high-quality longitudinal education data and advanced analytical tools to drive decisions and insight across the education continuum.

Focus areas include:

- Infrastructure development around NYUSOM's educational data;
- Data visualization and dashboards;
- Self-service business intelligence;
- Advanced statistical computing;
- Integration of clinical and education data; and
- Data governance.

Division of Education Quality

The Division of Education Quality (DEQ) focuses on the integrated and longitudinal evaluation of curriculum that captures educational innovation and outcomes across the UME to GME continuum.

Their aims include:

- **Quality:** Establish continuous quality improvement (CQI) processes to ensure that educational efforts are leading to intended learning outcomes;
- **Effectiveness:** Turn evaluation data into insight by producing evaluations that facilitate understanding and action; and
- **Efficiency:** Refine evaluation systems and workflows to create efficient, streamlined, consistent processes in order to make the best use of available resources while minimizing burden and disruption.

Division of Learning Analytics

The Division of Learning Analytics (DLA) facilitates innovation in the use of educational data at NYUSOM. It's mission is to identify and develop innovative learning analytics measures for improving the process and effectiveness of medical education.

DLA faculty and staff have expertise in some of the more advanced education research data analysis methods including:

- Linear modeling;
- Item-response theory;
- Classical test theory; and
- Learning curve methodologies.

DLA's ultimate goal is to nurture a system of continuous, embedded data analytics to promote positive action by students, faculty and their collaborators, in service of the health and well-being of their patients. DLA contributes to the development of individualized learning pathways by providing data and analysis templates that guide both learners and educators as they navigate the rich set of educational opportunities at NYUSOM.

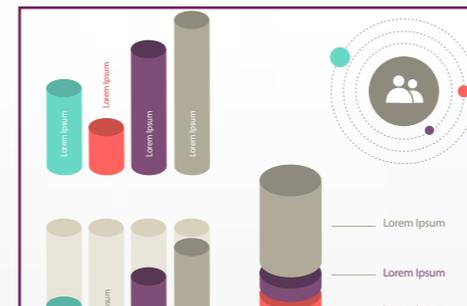
Program for Digital Learning

The Program for Digital Learning (PDL) is dedicated to the design, development, implementation and evaluation of digital learning resources for medical education. PDL provides assistance to faculty who seek to leverage existing technologies to improve and standardize the delivery of their educational content.

PDL expertise includes:

- Instructional design;
- Digital publishing;
- E-learning;
- Usability and user experience; and
- Outcomes analysis and research.

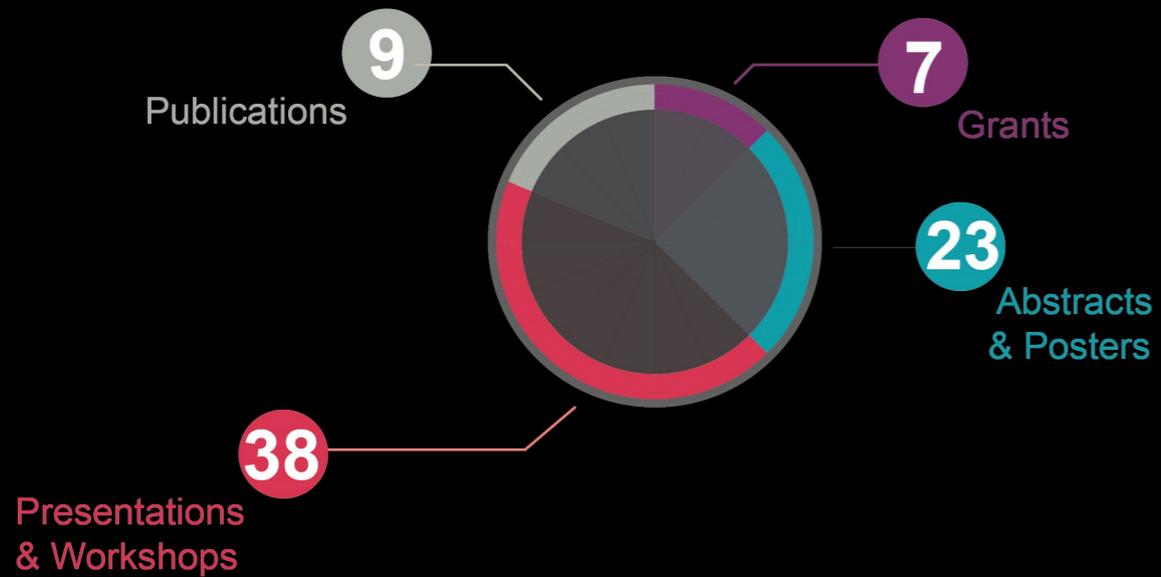
FACTS & FIGURES



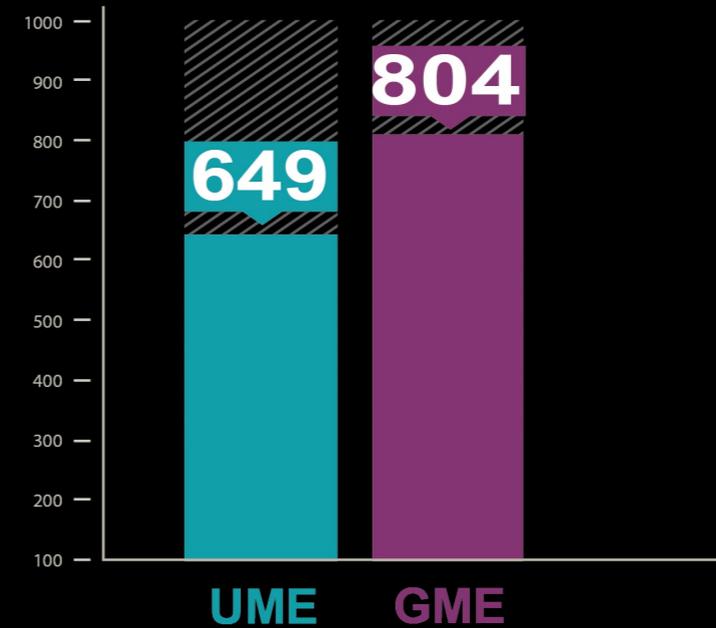
FACTS & FIGURES

32 Faculty

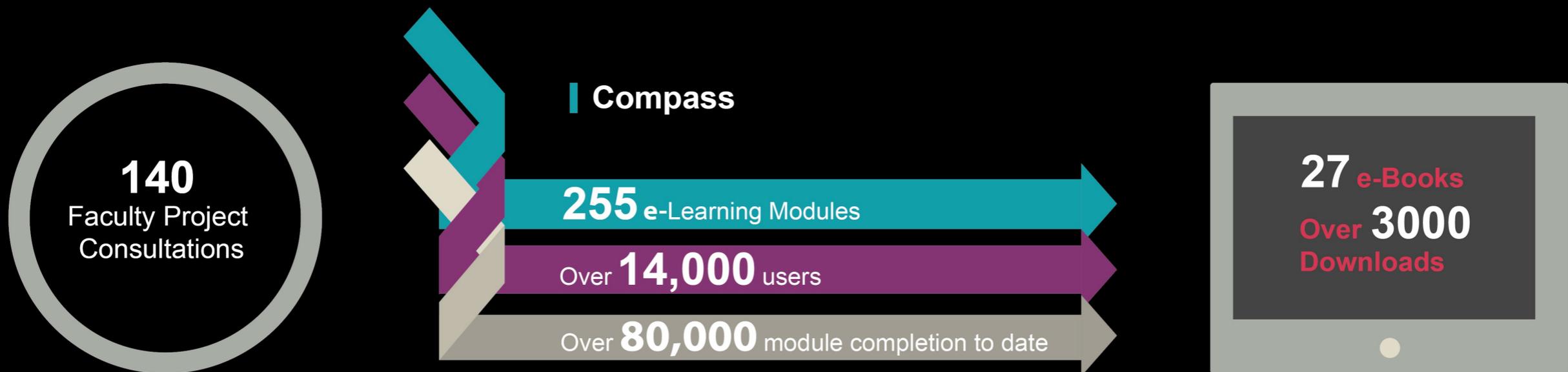
Dissemination & Scholarship



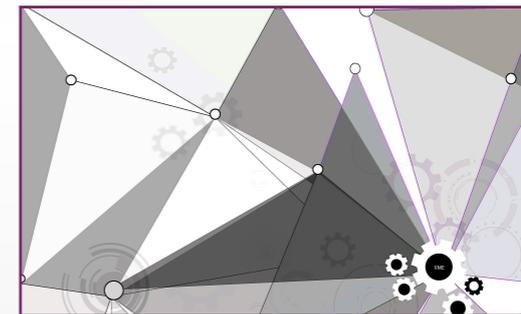
Learner iPad Program



Digital Resources for Medical Education



EDUCATIONAL 'BIG DATA'



Open Clinical Data
student education

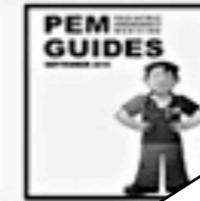
**ALEX to Brightspace: A New
Management System**

will efficiently launch Brightspace to the entire educational
board of Medicine. Our goal is to provide the educational
system that allows for superior user experience and
the curricula. More information and resources will be
months. Stay tuned!

**Toward Full Student
Engagement in
Clerkship Training**

article recently published in
Journal, Ruth Crowe, MD,
and Yiqing, PhD,
have learning
our students for
experiences
to provide
and
to

New eBooks Available on the Apple iTunes Store



Explore free and paid NYUSOM
education

Learn more

NYU School of Medicine is a leader among medical schools in the use of sophisticated tools to collect, analyze and display electronic learning data. The opportunities presented by such data are transformative: our evaluation of the effectiveness of curricula can move from the anecdotal to the epidemiologic; detailed learner-level data can drive the move towards individualized learning and personalized progression; the analysis of changes in performance over time can accelerate our transformation towards competency-driven health education.

A critical component of IIME's strategy has been to create effective systems for analyzing and synthesizing evaluation data for continuous quality improvement (CQI) of NYUSOM's education programs. Overseeing this strategy are two divisions and a newly created Section on Education Data within the Division of Educational Informatics.

Collectively, their mission is to establish an education data analytics ecosystem that provides stakeholder access to high-quality, longitudinal education data. Additionally, the focus is on facilitating both understanding (interpretation and synthesis) and action (planning and decision-making) across the medical education continuum.

Education Data Warehouse

The Education Data Warehouse (EduDW) aggregates the e-learning data of every NYUSOM student, resident and faculty member. This system integrates data from a broad spectrum of educational applications and technologies, such as our learning management system, computer-based testing, patient logs, student portfolios, student information system, evaluation systems, our simulation center OSCE systems, and more. The EduDW includes the continuum of learner data from undergraduate through graduate and continuing medical education. A key goal of IIME is to link the EduDW to the Clinical Data Warehouse, creating opportunities to explore clinical outcomes assessment at the individual learner level and at the education program level.

Evaluation Environment

In 2015, the IIME Division of Education Quality (DEQ) solicited feedback from pre-clerkship, clerkship, and graduate medical education (GME) leadership to create a suite of continuous quality improvement processes that enable leaders and educators to make evidence-based decisions in support of high quality teaching and learning.

In partnership with the Office of Medical Education, DEQ produced over 220 evaluation activities in undergraduate medical education (UME) throughout 2015:

- 99 clerkship rotation reports;
- 27 selective reports;
- 25 presentations to committees;

- 20 undergraduate OSCEs reports;
- 14 comprehensive pre-clerkship module reports;
- 8 comprehensive core clerkship reports;
- 3 surveys focused on our graduates (End-of-Medical School Student Survey, Survey of Residency Program Directors about NYU Graduates, Class of 2014 Alumni Follow-Up Survey);
- 3 comprehensive advanced clerkship reports;
- 2 inter-clerkship intensive (ICI) reports;
- 1 report evaluating the impact of our Curriculum for the 21st Century (C21);
- 1 report on the innovative Transition to Residency week-long program;
- 1 report on the quality of clerkship orientation; and
- 1 database and defined process for collecting and monitoring reports of mistreatment

DEQ designed and piloted CQI processes that occur monthly and annually for much of the UME program. Special reports highlight benchmarks in core performance areas that trigger immediate action, as well as in-depth analysis. Making data available in these ways has facilitated evidence-based decision-making regarding the content and delivery of educational materials. The CQI process has brought a fresh focus to key success factors in the clinical classroom of clerkships, quantifying the educational impact of both teaching faculty and house staff.

Data Visualization

Some of the most exciting work accomplished this year was in the area of data visualization.

DEQ and the Section on Education Data recently launched the first set of dynamic dashboards for key education information. These dashboards provide a single-point-of-entry for learners, faculty and education leaders to access program- and individual-level data as appropriate. Dashboards enhance NYUSOM's ability to make data-driven decisions around improvement.

The first set of dashboards provides both snapshot and in-depth views for:

- Education Administration: displays NYUSOM competitiveness and reputation metrics at the national level including rankings, admissions trends, and residency placements.
- Curriculum Evaluation: provides easy access to all program evaluation data on modules, clerkships, and selectives. With this dashboard, education leaders can easily compare and contrast educational programs within a given curricular stage and can view trends in the quality of educational programs over time, a critical aspect of monitoring curricular innovation.
- Evaluation of Faculty and Residents: faculty, residents and education leadership can examine evaluation data and narrative feedback from students and house staff that focuses on the quality of teaching, in both undergraduate and graduate medical education.

- Student Learning in Progress: students can examine their progress in meeting clerkship requirements via the Patient Log Dashboard and their progress in developing clinical skills via the Mid-Clerkship Feedback Dashboard. The mid-clerkship formative feedback process includes student reflective writing, self-ratings and preceptor ratings of demonstrated clinical skills and the development of individualized learning objectives, all of which are visualized in the dynamic, automatically updated dashboard.
- Clerkship Rotations in Progress: clerkship directors can examine the progress of students currently on rotation, both in meeting their clerkship requirements for clinical exposure (patient log domains) and in documenting mid-clerkship meetings with their preceptors. Behaviorally-anchored clinical skills data is collected via the iPad PRIMES app (Professionalism, Reporting, Interpreting, Managing, Educating, and Procedural Skills).

Access to the sensitive information in these dashboards is determined by policies formulated by a newly established Educational Data Innovations Task Force. The Task Force provides oversight and stewardship of the best use of electronic learning and outcomes data and ensures the protection of, and access to, data for NYUSOM students, house staff, and faculty.

Dynamic displays of key educational information continues to evolve with the goal of improving their utility in supporting the comprehension of meaningful trends and in enhancing decision-making. Looking ahead, DEQ and the Education Data Section will design methods for improving educators' and learners' facility with data so that they will have more opportunities to analyze and understand their own progress.

Learning Analytics in Medical Education

Learning analytics is defined as “the measurement, collection, analysis, and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environment in which it occurs.” (Society for Learning Analytics Research)

With the availability of the education data warehouse and the intersecting Database for Research in Education and Academic Medicine (DREAM), the Division of Learning Analytics (DLA) is realizing the potential of learning analytics by employing both predictive statistical modeling and innovative data visualizations that make actionable data accessible to learners, educators and leadership.

Learning analytics can individualize and personalize medical education. Data-driven, personalized education takes into account each learner’s unique background, experiences and aptitude with the goals of developing each learner toward the appropriate level of competency, and of fostering excellence.

Learning analytics in a medical school context can guide educators and leaders to the long-awaited promise of a truly integrated curriculum. Using the ever-increasing amounts of data that are collected along the educational continuum, NYUSOM can begin to apply “big data” techniques like data mining and predictive modeling to questions such as: how do our curricular elements connect to each other from pre-clerkship and clerkship experiences? How should we guide our students in their studying? Which experiences have the most impact?

Individualized Paths to Competency and Beyond

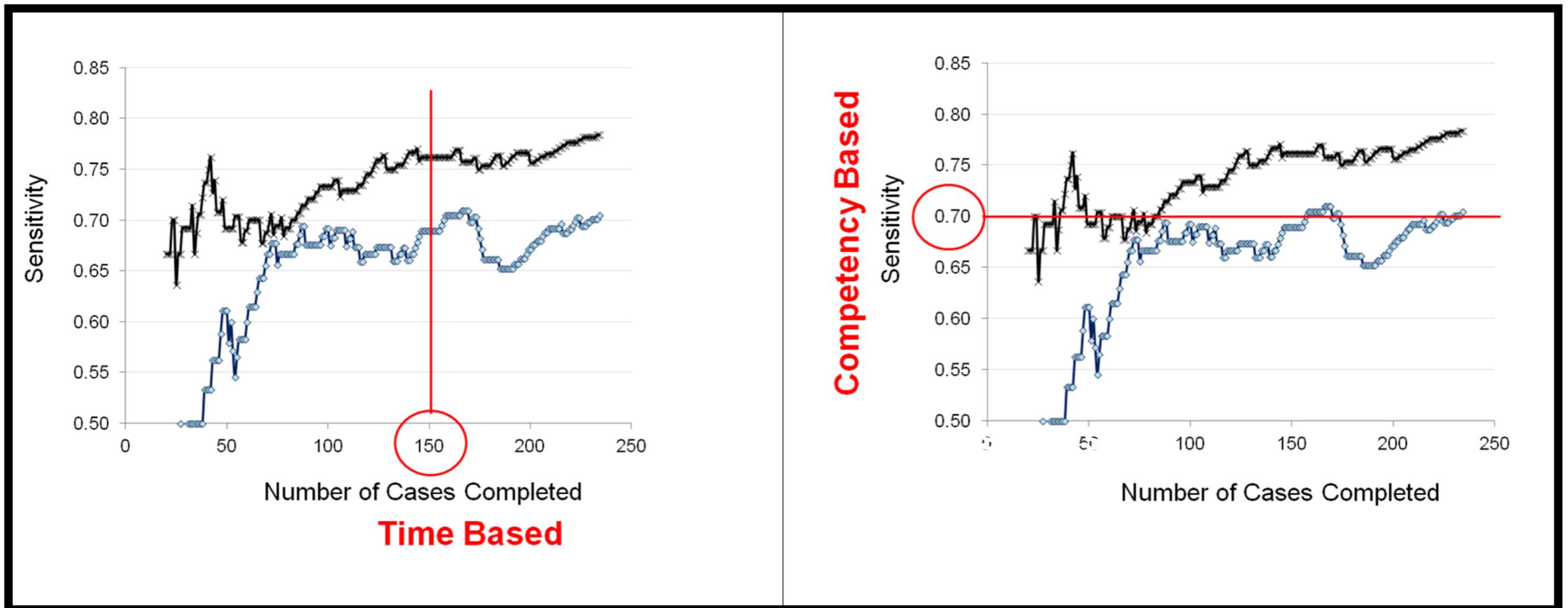
National accreditation bodies have mandated that medical schools embrace a competency-oriented approach that represents a shift from “standardized experience with variable outcome approaches to ones where variable approaches lead to standardized outcome.” (O’Brien, 2010)

In collaboration with the Department of Radiology and the Ronald O. Perelman Department of Emergency Medicine, students practice diagnosis with feedback according to their own individualized learning curve. As the graphic on the next page demonstrates, the method follows the adult learning principle of explicitly taking into account varying levels of prior knowledge to produce the amount of exposure and feedback necessary to achieve competency. This also allows for the pursuit of excellence by making available as much practice as is desired.

In a separate research project, in collaboration with the Mayo Clinic and the University of British Columbia, DLA has created an online repository of ECGs that allows students to practice on up to 600 annotated cases with immediate feedback. One particular type of feedback is shown, in which students are provided with their individualized “confusion matrix” showing their relative strengths and weaknesses in distinguishing one diagnosis from another. The example student would then be afforded the ability to practice with more of the types of cases that confused them.

ECG Practice Case Project

In collaboration with the Mayo Clinic and the University of British Columbia



TEACHING WITH TECHNOLOGY



HOW TECHNOLOGY CAN ENHANCE HEALTH PROFESSIONS EDUCATION

A REPORT COMMISSIONED BY THE JOSIAH MACY JR. FOUNDATION

In Spring 2015, the Josiah Macy Jr. Foundation called together leaders representing academic medical centers, technology start-ups and other innovators to discuss the future of health professions education. This premier event entitled “Enhancing Health Professions Education Through Technology: Building a Continuously Learning Health System” was co-chaired by Gail Stuart, PhD, RN and Marc Triola, MD.

The [proceedings of the conference](#), published October 2015, illustrate the transformative environment we find ourselves in:

“The current health care environment is dramatically different from the one that shaped our existing educational programs and pathways. Patient care is moving out of the hospital and into the community; providers who have traditionally worked in silos are now part of inter-professional teams; there is greater accountability for quality, value and cost in health care; and providers of all types need a wide variety of new competencies, including those related to technology and information management.

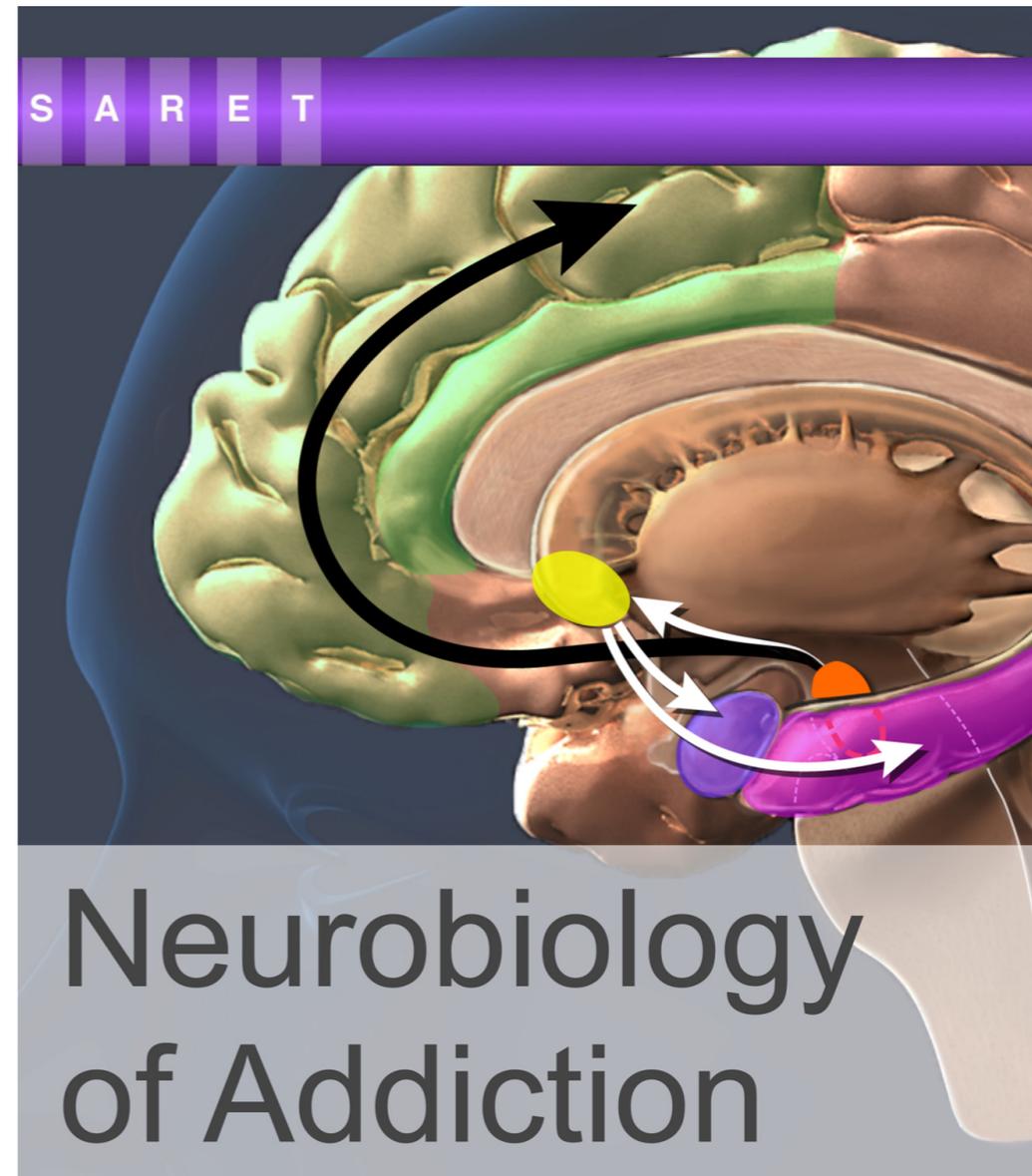
The conference captured both the excitement and the potential of this intersection...It acknowledged that there has been an explosion in the diversity and adoption of educational technologies across higher education, but it also recognized that important questions remain unclear to many educators.

- What characteristics should we look for in educational technology?
- What preparation do faculty need to understand, evaluate and optimally utilize these technologies?
- How do educators, clinicians and administrators keep up with the pace of change in technology?
- And most fundamentally, how can educational technologies help bridge the gap between a changing health care system and an evolving educational system?”

Digital Learning Resources

IIME has established a formal consultation service for faculty who seek to leverage the powerful, mobile environment for teaching and learning. Through the Program for Digital Learning, NYUSOM faculty have published 27 e-books for undergraduate and graduate medical education, faculty development and patient education.

Select Publications



Substance Abuse Research Education and Training



Learner iPad Program

The Learner iPad Program, now in its second year, facilitates easy access to mobile resources for every medical student and resident at NYU Langone. The iPad minis fit in a white coat pocket and are provided to learners with a series of recommended applications and resources to aid in their educational and clinical experiences.

Program goals:

- Create a ubiquitous and uniform e-learning environment for NYU Langone;
- Enable timely workplace-based assessment and feedback across the learning continuum;
- Create a new platform for student/trainee and faculty collaboration;
- Develop an iPad-enabled curriculum by adapting current curriculum and creating new mobile apps, ebooks, and dynamic content; and
- Facilitate mobile access to educational and clinical resources.

GME Assessment Application

As part of the iPad program, the Division of Educational Informatics (DEI) developed a custom iOS application for the Internal Medicine Residency Training Program, designed specifically to support frictionless, workplace-based assessment. This app, called IOU (It's On You), provides residents with the ability to request and record immediate feedback from faculty and chief residents - eventually allowing for 360 evaluations from peers, patients, and other members of the health care team. The app can be used with or without wireless connectivity in all settings in which our residents train. Use of this application supplements existing evaluation processes to contribute additional feedback to residents about their progress in developing core

competencies and meeting related milestones. Going forward, the IOU app can be expanded to any interested GME program.

NYUSOM Health Care by the Numbers

As a result of a grant from the American Medical Association, NYUSOM has created NYU Health Care by the Numbers, a flexible three-year, individualized, technology-enabled blended curriculum to train medical students in using big clinical data to improve care coordination and care quality.

Patient panel databases provide the foundation of the curriculum, which are derived from de-identified patient data gathered from NYU Langone's physician network practices and government-provided open data sources. These panels immerse students in the 'big clinical data' of our health care system - from the 2.5 million patients admitted each year to New York hospitals to the individual patients seen in NYU's outpatient clinics.

The NYU Health Care by the Numbers Curriculum emphasizes the use of big data and technology for patient and population management and allows students to track their own activities for quality improvement, safety and value-added care.

Program for Medical Education and Technology

The Program for Medical Education and Technology is responsible for the development and deployment of innovative online resources for health professions education, including the Web-Initiative for Surgical Education Modules (WISE-MD) and the recently released WISE-onCall Modules. WISE-MD is an application that is an integral part of the third year medical student surgical clerkships. Today, it consists of 34 online modules and is used in 80 percent of medical schools in the U.S. with a growing number of schools abroad. Through institutional subscriptions, WISE-MD has been used by over 16,000 U.S. medical students.

WISE-onCall is a program designed for transitioning medical students and first-year medical and surgical residents. The goal of these modules is to provide new residents with a framework for assessing and managing patients who display common clinical symptoms linked to a variety of diagnoses. The modules also provide program directors and hospital administrators with a means by which they can begin assessing junior residents patient management skills. WISE-onCall has been piloted in 31 medical schools with approximately 300 medical students. A parallel program of simulation scenarios is being developed that will assess the ability of learners to apply information to a clinical situation.

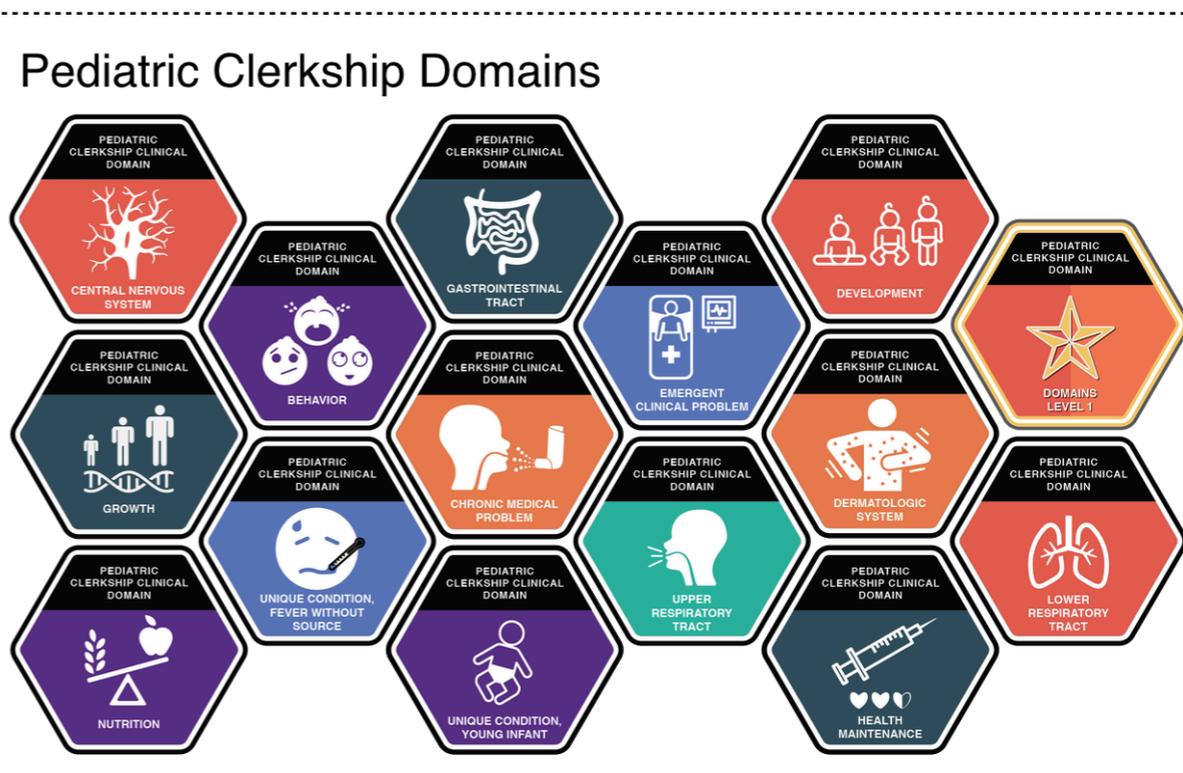
Badges Pilot

Digital badges have been used in various settings to represent an individual's achievements to the wider audience of the Internet, where standards are emerging to present badges in a variety of applications and websites. At NYUSOM, badges provide a simple and visual way of engaging and informing learners on how they are developing key competencies and skills throughout their personal trajectory along the educational continuum.

DEI, DEQ and the Program for Digital Learning (PDL) partnered with the Pediatrics Clerkship to create a badges pilot project focused on exposure to clinical conditions that are essential to a clerkship experience. NYUSOM students digitally record information about clinical cases in a patient log. Timely logging of these encounters, when the memory of the interaction is fresh, is encouraged and is a key element of professionalism in the clerkship setting. Logging cases provides an opportunity for students to reflect on patient interactions and their clinical significance. The patient log is a valuable administrative tool for clerkship directors and preceptors, ensuring that students have the required broad exposure to clinical domains. At clerkship mid-point, the patient log supports identification of individual students' learning objectives.

The pilot involved defining logic related to educational data sources, implementing Badgekit open source technology, and enhancing and automating messages from the Pediatric Clerkship Director. These technical components supported three educational objectives:

- Provide students with immediate acknowledgement of their patient logging activity;
- Articulate and reinforce the educational value of documenting clinical experiences during clerkship, and
- Provide a visual roadmap of individual student progress toward clerkship requirements.

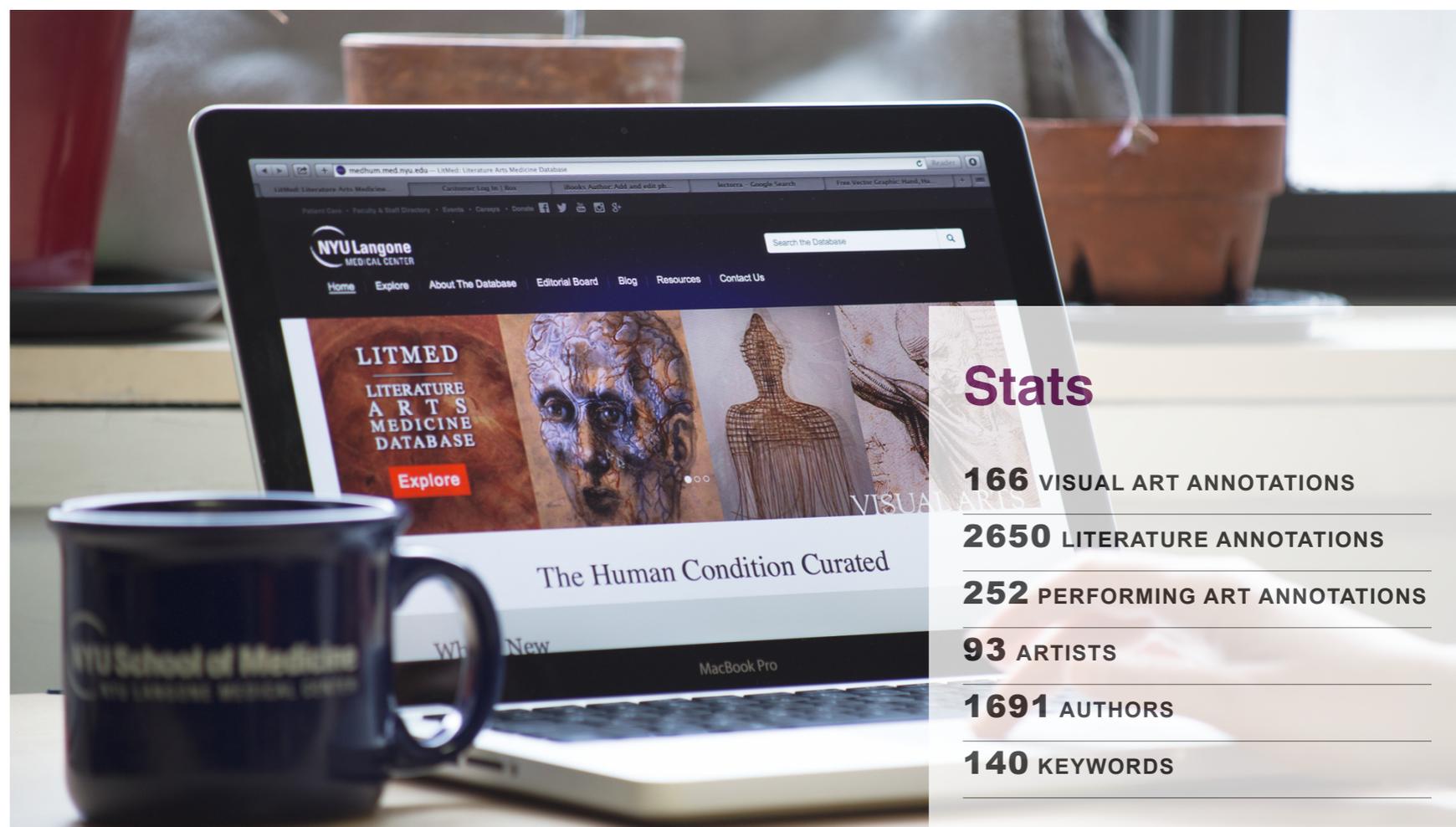


The pilot phase of the project was conducted in September 2015 and included 22 students in the Pediatrics Clerkship. Badges created for this first phase included 14 required clinical domains and a defined “milestone” badge indicating that a student had completed all of the 14 clinical domain requirements. Students in the badging project created 30 percent more logs than did students in the prior rotation, with a total of 1,156 logs versus 824. Over 430 badges were issued and students accessed their badge “trophy case” of issued badges more than a hundred times.

Future directions may include components of competency development or entrustable professional activities, to support recognition of residents as educators, or to allow learners to design their own challenge to achieve badges related to their individual learning objectives.

Literature, Arts and Medicine Database

IIME partnered with the Department of Medicine’s Division of Medical Humanities to release an enhanced version of the Literature, Arts, and Medicine Database (LitMed), an evolving collection of annotated works exploring the intersection between healthcare and the human experience. Originally created in 1993 by NYUSOM faculty, the program consists of annotations from an invited editorial board of scholars from all over North America. The site has grown tremendously since its inception and currently attracts thousands of unique visitors daily. It serves as an invaluable resource for scholars, educators, learners, patients, and others interested in medical humanities.

A photograph of a laptop displaying the LitMed website. The website header includes the NYU Langone Medical Center logo and a search bar. The main content area features a banner for 'LITMED LITERATURE ARTS MEDICINE DATABASE' with an 'Explore' button. Below the banner, there are sections for 'The Human Condition Curated' and 'What's New'. A semi-transparent statistics overlay is positioned on the right side of the laptop screen.

Stats	
166	VISUAL ART ANNOTATIONS
2650	LITERATURE ANNOTATIONS
252	PERFORMING ART ANNOTATIONS
93	ARTISTS
1691	AUTHORS
140	KEYWORDS

Elective Registration System

In response to student recommendations to improve the elective enrollment process, DEI collaborated with the Offices of Medical Education and Registration & Student Records to engineer a powerful new Elective Registration System (ERS). ERS provides eligible students the ability to participate in elective lotteries and - for the first time - directly manage their official schedules for elective rotation enrollment. This provides unprecedented transparency and flexibility for students to plan and manage their elective experiences in Stages 3 and 4 of the medical school curriculum.

Your Schedule

Please Note: Courses that are not modifiable (indicated with ) are either:

- Required courses
- Courses beginning less than 60 days from today's date
- Elective courses that are not assigned via the Elective Registration System

[+ Add Rotations](#)

Rotation	Duration	Block	Status	Actions
Medical Toxicology	4 Weeks	May-23-2016 - Jun-19-2016		  95 days to edit
Critical Care Medicine Clerkship	4 Weeks	Apr-25-2016 - May-22-2016		
Dermatology Clerkship	4 Weeks	Mar-28-2016 - Apr-24-2016		  39 days to edit
Ophthalmology	2 Weeks	Feb-22-2016 - Mar-06-2016		  4 days to edit
Psychiatry	6 Weeks	Nov-09-2015 - Dec-20-2015		
Pediatrics	6 Weeks	Sep-28-2015 - Nov-08-2015		

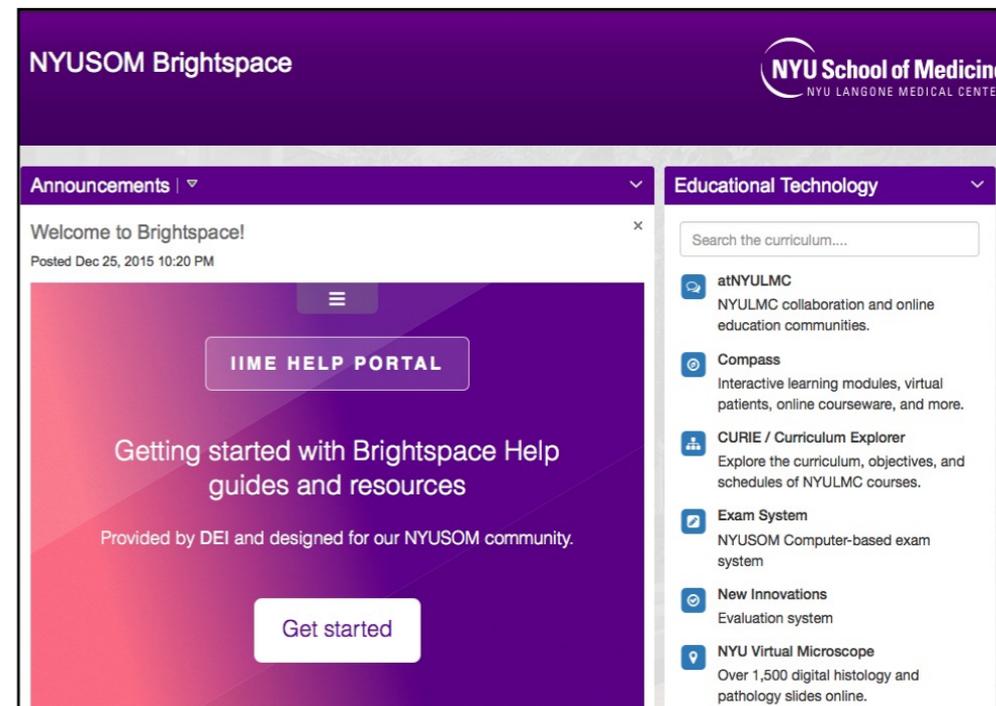
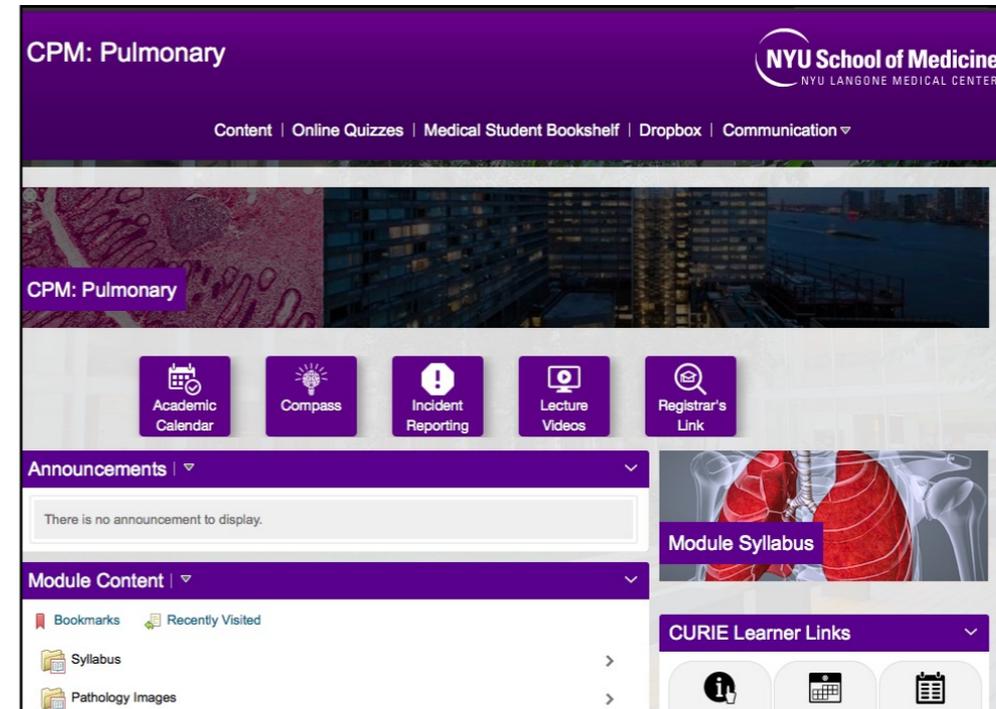
Looking Ahead: A New Learning Environment in Brightspace

Since 2007, ALEX has served as the NYUSOM Learning Management System (LMS). In the years since ALEX was first introduced, much has been changed in both our curricula and the technological landscape - prompting the formation of a working group with representation from faculty, students and administrators across the education mission to determine the next generation LMS to best support teaching and learning. After an in-depth evaluation, this working group selected the new learning environment for NYUSOM called **Brightspace**.

This flexible platform goes beyond the traditional LMS, supporting a personalized learning experience and offering features that have been frequently requested by educators and learners, including:

- Mobile access to educational content and tools;
- Improved content creation and collaboration features;
- Built-in dashboards and learning analytics; and
- A more modern and easy-to-use interface.

IIME is partnering with educators across undergraduate and graduate medical education to pilot selected sites between January and June 2016 with full implementation across all sites in July 2016.



RESEARCH, GRANTS & AWARDS



RESEARCH & GRANTS

Accelerating Change in Medical Education Initiative

Sponsored by the American Medical Association

In 2013, NYUSOM was one of eleven accredited medical schools awarded a chance to develop and implement innovative ways to shift the focus of medical education towards team-based care, population health and chronic health management. As part of that effort, NYUSOM received a \$1 million grant to leverage the institutional partnership of the medical school and physician network to create an integrated, longitudinal curriculum based upon the clinical data of its practices. Within the first few months of medical school, students are exposed to real-world clinical settings and are charged with thinking about health care quality and costs by performing a quality improvement capstone project. The AMA consortium now has 32 medical school members.

Consortium of Medical Schools with Accelerated Pathway Programs

Sponsored by the Josiah Macy Jr. Foundation

In collaboration with Steven B. Abramson, MD (PI) and Joan Cangiarella, MD

NYUSOM is leading a consortium of eleven medical schools that aim to address and understand the logistical, regulatory, professional development and competency questions associated with the formation of an accelerated pathway program. The consortium provides a venue for discussion about the diverse nature of these programs and focuses on the challenges and opportunities that can lead to improved quality and outcomes.

Reframing Readiness for Residency: Core Entrustable Professional Activities (EPAs) for Entering Residency Pilot Program

Sponsored by the Association of American Medical Colleges (AAMC)

In collaboration with Mel Rosenfeld, PhD (PI), Patrick Cocks, MD, Linda Tewksbury, MD

NYUSOM is one of ten medical schools selected to implement and test the feasibility of the core EPAs for entering residency. Specifically, the program seeks to address four main areas related to full implementation: curriculum development, assessment of competency using the EPA framework, the path to entrustment and faculty development.

Of the thirteen existing EPAs, NYUSOM is responsible for:

- Prioritizing a differential diagnosis following a clinical encounter;
- Forming clinical questions and retrieving evidence to advance patient care;
- Collaborating as a member of an interprofessional team; and
- Identifying system failures and contributing to a culture of safety and improvement.

As a result of the program, the AAMC hopes to create a robust learning community that will share best practices and resources related to optimizing the use of the core EPAs. The program is now in its second year.

Learning Analytics and Medical Images

Sponsored by MedU

This study takes a fine-grained look at how learners interact with medical images and video within multimedia educational modules, resulting in a widely-applicable conceptual model for defining and using learning analytics with medical images. Preliminary results show that the pattern of online behavior such as how long a student spends on certain pages and their pattern of using available hyperlinks predicts their success on subsequent content questions. The implication is that

medical instructional designers can then use this model to institute “A/B testing” in which the best ways to teach a concept is subjected to rigorous empirical validation based on comparing competing strategies against their downstream effectiveness. Study participants include medical students, residents and attendings at select institutions. MedU is a not-for-profit organization that advances medical education through collaborative development, maintenance, and research of innovative and comprehensive computer-assisted instruction programs.

Accelerating Analytics Maturity at NYULMC

Funded by the MCIT Innovation Campaign

This project aims to accelerate the institution’s advancement in analytics by moving from a primarily manual workflow and building an automated data management infrastructure that integrates free advanced statistical computing software within a data-governed environment. This integration enables stakeholder use of powerful statistical functions, predictive and prescriptive methods, machine learning algorithms and text mining. IIME’s Education Data Section, Division of Education Quality and Division of Learning Analytics partnered with the Data Core team to develop cross-mission pilot projects that harnesses the new advanced statistical infrastructure. These pilots are expected to be completed in Spring 2016.

Big Data to Knowledge (BD2K) Initiative Research Education: Open Educational Resources for Sharing, Annotating, and Curating Biomedical Big Data

Funded by a National Institutes of Health R25 Grant
In collaboration with Alisa Surkis, PhD and Kevin Read, MLIS, MAS in the NYU Health Sciences Library (PI)

This project aims to accelerate the institution’s advancement in analytics by moving from a primarily manual workflow and building an automated data management infrastructure that integrates free advanced statistical computing software within a data-governed environment. This integration enables stakeholder use of powerful statistical functions, predictive and prescriptive methods, machine learning algorithms and text mining. IIME’s Education Data Section, Division of Education Quality and Division of Learning Analytics partnered with the Data Core team to develop cross-mission pilot projects that harnesses the new advanced statistical infrastructure. These pilots are expected to be completed in Spring 2016.

What is the Impact of Reflection as a Teaching Tool in Graduate Medical Education? Examining the Evidence

Funded by the Arnold P. Gold Foundation
In collaboration with Abigail Ford Winkel, MD (PI), James Lebret, MD, and Joseph Nicholson, MLIS, MPH

This project entails rigorous reviews of the literature on humanism in health care. All participants in the Mapping the Landscape, Journeying Together effort make up an active community of practice with the goal of translating research into practice.

Marc Triola, MD Awarded Master Educator At The 14TH Annual Dean's Honors Day



Ceremony at Farkas Auditorium on October 5, 2015

**AFFILIATE
FACULTY**



NEW MEMBERS

Since 2014, IIME has offered select faculty with affiliate appointments within the Institute. The goal of this program is to develop a cadre of medical educators recognized as leaders of teaching and learning innovations within NYU Langone and nationally.

The program provides value to the departments via faculty skill development, community building, and innovation projects. Members leverage the unique resources of IIME's team to advance their educational agendas and serve as mentors throughout the education continuum - to students, residents, and other faculty at NYU Langone.



Karen M. Duncan, MD

Department Of Obstetrics & Gynecology

Karen M. Duncan, MD is an assistant professor and medical student clerkship director in the Department of Obstetrics and Gynecology. She works clinically as an attending physician at Bellevue Hospital.

Dr. Duncan is a member of the Ob/Gyn Education Committee and the Ob/GYN Medical Student Education Committee.

She received her medical degree from the University of South Florida College of Medicine and completed her residency, as well as advanced training in gynecologic imaging there.



Larissa Laskowski, DO

**Ronald O. Perelman
Department Of Emergency
Medicine**

Larissa Laskowski, DO is a clinical assistant professor for the Ronald O. Perelman Department of Emergency Medicine, medical toxicologist and consultant for the New York City Poison Control Center (NYC PCC) and co-director of the Public Health Education Partnership (PEP). In her role within the Department of Emergency Medicine,

Dr. Laskowski has contributed to resident education through the creation of a Cost-Conscious Care (now Value-Conscious Care) curriculum which was recognized with an Innovation Award by Cost of Care and the ABIM Foundation.

Dr. Laskowski completed her undergraduate degree at Duke University and medical degree at the Philadelphia College of Osteopathic Medicine. She completed residency in emergency medicine at NYU/Bellevue where she served as chief resident and completed fellowship in medical toxicology at the same institution.



Toni M. McLaurin, MD, MMI

**Department Of Orthopaedic
Surgery**

Toni M. McLaurin, MD is an associate professor and associate director of orthopaedic surgery in the Department of Orthopaedic Surgery at the NYU Hospital for Joint Diseases. She was appointed chief of the orthopaedic service at Bellevue Hospital in January 2015 and specializes in managing complex orthopaedic trauma.

She joined the orthopaedic faculty in February 2003 and has been an integral part of the teaching and training of orthopaedic residents, twice awarded Teacher of the Year. She has been actively involved in the mentoring of women and underrepresented minorities interested in orthopaedics at both the local and national levels for which she was awarded the Alvin H. Crawford Mentoring Award in 2014. She has served on the Diversity Advisory Board of the American Academy of Orthopaedic Surgeons and is a member of the Diversity Committee of the NYU Hospital for Joint Diseases Department of Orthopaedics.



Joey Nicholson, MLIS, MPH

NYU Health Sciences Library

Joey Nicholson is an assistant curator and the education and curriculum librarian for the NYU Health Sciences Library. Mr. Nicholson has been the content director for information literacy and evidence-based searching for the undergraduate medical curriculum since 2011. His research interests focus on teaching and assessment of

evidence-based medicine practice in medical students. In 2015, he was awarded a PrMEIR grant to investigate how medical students and residents are using technology at the point-of-care with a focus on best practices in the use of technology to improve evidence-based medicine practice for patient care support.

Mr. Nicholson received his undergraduate degree from the University of California Davis, his Masters in Library and Information Science from the University of Pittsburgh, and his Masters in Public Health from Columbia University Mailman School of Public Health.



Anand Swaminathan, MD, MPH

**Ronald O. Perelman Department
Of Emergency Medicine**

Anand Swaminathan, MD, MPH is an assistant clinical professor and assistant residency director in the Ronald O. Perelman Department of Emergency Medicine. His main interests are in resident education, resuscitation and knowledge translation. He is the president and one of the founding members of the All NYC EM Committee and co-creator of the EM Lyceum blog.

He is a contributor to a number of Free Open Access Medical Education resources, including Life in the Fastlane, Academic Life in Emergency Medicine, ER Cast, the Skeptics Guide to Emergency Medicine and iTeachEM. He is the assistant director of the Teaching Institute and a faculty member for EM: RAP and the Essentials of Emergency Medicine Conference.

Dr. Swaminathan completed his medical school training at the University of Medicine and Dentistry of New Jersey, New Jersey Medical School in 2005 and his residency training in emergency medicine at the Bellevue/NYU Emergency Medicine Program in 2009. He is currently an ABEM board certified physician.

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CONSULTATION SERVICES



Digital Resources for Medical Education

- Instructional design - Given today's advances, there are many more decisions to be made as to how to integrate learning material effectively. We can help you apply evidence-based theory to ensure knowledge transfer through technology.
- Content creation - Our team has expertise in visual design, multimedia development and usability. We guide faculty through the process of creating digital resources for medical education.

Education Technologies

- Mobile computing - Leveraging the Learner iPad Program to improve how educational content is delivered and accessed within the educational environment
- Curriculum data management and competency mapping

Self-Service Business Intelligence Tools

- Using self-service business intelligence tools for data discovery and decision-making
- Utilizing advanced statistical computing and machine learning
- Building and sharing interactive dynamic dashboards and reports

- Setting up data-driven alerts
- Metrics development

Education Study Design

- IRB protocols for education study
- Educational research designs
- Education data analysis

Program Evaluation and Assessment Measures

- Evaluating existing and new curricular elements
- Making decisions with evaluation data
- Using the Medical Education Student and Resident Research Registries
- Measuring and ensuring quality for teaching, learning and evaluation
- Analyzing and interpreting qualitative education data, including text-based data
- Designing and implementing surveys

[Download](#) our full list of consultation services and program priorities.

IIME
TEAM



IIME TEAM

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MEDICAL CENTER LEADERSHIP

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