University of Cincinnati
COLLEGE OF NURSING

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University of Cincinnati College of Nursing

Cincinnati, OH

The **iCoN** Initiative is an ongoing partnership between University of Cincinnati (**UC**) College of Nursing (**CoN**) faculty, instructional designers (**ID**), and the informational technology department to transform the delivery of nursing education in the classroom, simulation laboratory, and clinical settings. This initiative facilitates an optimized learning experience by helping faculty to creatively leverage the iPads as a vehicle to engage students in learning. A secondary goal is to improve communication and collaboration among students, faculty and advisors.

Roll-out of the initiative occurred in three phases:
- **Phase 1:** Faculty and staff development through multiple **iPad Institutes** (a two-day immersive iPad boot camp).
- **Phase 2:** Classroom and simulation space enhancements to include iPad related devices and technologies, such as **Apple TV**, **AirWatch**, and iPad stands.
- **Phase 3:** Student roll-out of iPads - Beginning Fall 2013, all incoming Bachelor of Science in Nursing (**BSN**) and Doctor of Nursing Practice (**DNP**) students were required to purchase an iPad. Beginning Fall 2014, select Master of Science in Nursing (**MSN**) and Post-Master's Certificate students were required to purchase iPads.
- **Phase 4**: Students began using the iPad device in a clinical setting. In addition, student roll-out of the iPad is scheduled for the Accelerated Nursing program beginning Fall 2018

As part of the initiative, all entry level course lectures were rebuilt in iBooks which allows videos, links, and interactive content to be included directly in an iTunes U course. eTextbooks were strongly recommended for usage to provide linkages between textbook material, **iBooks lectures** and content delivery in the classroom. In addition, electronic nursing reference materials and relevant apps were provided to students and faculty.

 Distinguished Program

Visionary Leadership

Shared Leadership
School leaders take collective ownership of the initiative.

Individual Leadership
A credible and inspirational thought leader sets and articulates the vision.

Community Engagement
Broad community sponsorship supports the institution's initiatives.

Tap here to learn How to Use This Multi-Touch Book.

Shared Leadership

At UC College of Nursing, our vision is "Through creative leveraging of

technology and inclusive excellence, UC College of Nursing will lead the transformation of health care in partnership informed by the people we serve." At the core of this vision is a group of faculty, staff, students, alumni and community partners that embrace a spirit of innovation that allows us to evolve. Sometimes this evolution occurs through continuous iterative changes. Sometimes it occurs through a complete disruption to our current way of thinking. Our iCoN initiative has been one of the innovations that has transformed the way we teach and the way we lead as a college. Why iCoN? We named our initiative iCoN to capture our commitment to being an icon for what innovative nursing education looks like. Since embarking on this effort, we've seen continuous evolution. Again, some are iterative and some are monumental. Either way, it has been a day-in, day-out commitment to finding better ways to lead as nurses, educators, researchers, community partners and health care providers. The initiative has expanded far beyond what we could have imagined when faculty

Greer Glazer, Dean,
College of Nursing

members first explored the potential of grading on an iPad or incorporating iPad technology into the classroom. Students are now using the devices to improve patient education in the clinical setting. Students are connecting with orphanage residents in Sierra Leone via iPad to provide health screenings.

Faculty members continue to find innovative ways to flip the classroom and more fully engage students as learner and educator. As support for the transformation grows and our model for sustainability improves, our end goal remains the same – to graduate nurse leaders who are critical thinkers, confident with technology, so they are able to seamlessly access the technology they need to provide effective care without losing sight of what is most

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important – the patient. Our efforts are built on our 125+ year legacy of nursing leadership and innovation. However, our future of innovation and leadership begins every single day. We are continuously looking for partners to help us realize an even greater future that allows us to lead the transformation of health care. UC Nurses. We See Leaders.

Greer Glazer, RN, CNP, PhD, FAAN Dean, University of Cincinnati College of Nursing Schmidlapp Professor of Nursing Associate Vice President for Health Affairs

The University of Cincinnati will celebrate our bicentennial in 2019, and ahead of this monumental event, we created a sharpened vision, called Creating our Third Century. This vision includes additional investment in faculty, staff and students, along with funding for new, innovative research initiatives and eLearning advancements.

Our Third Century plan for eLearning leadership aims to install collaborative and creative workspaces and enhance classrooms to support active learning. We're investing in software and infrastructure, along with instructional design and faculty development as we reimagine the student experience. UC recently funded new technology projects that will transform original ideas into reality and keep the university on the leading-edge of education. One of these projects will create a virtual clinical laboratory environment in which students in health-related programs

Beverly Davenport, Interim President, University of Cincinnati

will be able to safely practice medical scenarios in interdisciplinary teams. This kind of simulation will offer an effective and accessible way to develop health care leaders of the future who are equipped to partner in the field. At the same time, UC College of Nursing continues to pioneer many eLearning strategies to lead the transformation of health care. The iCoN initiative is using iPad and related technology to connect students, faculty and advisors in creative ways and preparing students to be nursing leaders who are ready to implement the latest health care innovations when they enter the workforce. These initiatives and more are helping UC continue to build on our unparalleled success and gain momentum as we move full steam ahead into our third century as a university community.

Beverly J. Davenport, PhD

Interim President

University of Cincinnati

Individual Leadership

The use of iPads as an instructional tool in the classroom allows every faculty member to be an individual leader in utilizing innovative teaching strategies designed to increase student engagement in a deeper learning experience. As a result of the maturing faculty expertise in the use of the iPad, technology has expanded to all classrooms. For example, the nurse practitioner program utilizes the iPad to teach advanced nursing skills such as suturing and intubation through the iPad video features and AirPlay. The Undergraduate

Denise Gormley, Associate Professor and Executive Director, Graduate Programs Coordinator, Nursing Administration Program

program faculty, in collaboration with instructional design staff, utilize a number of apps and have created innovative widgets to support a variety of learning needs. The iPad also allows for more robust simulation activities for both undergraduate and graduate nursing students. The iPad initiative has been the focus of active research as a Scholarship of Teaching & Learning (SoTL) project that continues to advance the science of nursing technology and education. As a practice tool, iPads have been incorporated into the clinical environment as a resource for students, an education tool for patients, and as a motivator for change among practice partners. In addition, the use of iPads has contributed to the advancement of professional nursing education. As the result of wide-spread adoption of the iPad at the UC CoN, the movement to a more innovative approach to teaching with a stronger emphasis on learner focused teaching has occurred. The development of iBooks for use with iPads has allowed faculty to experiment with new technology within the context of their own curriculum and courses. And while we are not able to immediately and completely eliminate classrooms with rows of desks, technologies such as AirPlay continue to support full engagement of students in ways that have not been possible in in the past.

Denise Gormley, PhD, RN
Associate Professor and Executive Director, Graduate Programs Coordinator, Nursing Administration Program

Yvette Pryse, Associate Director of the Undergraduate Program Associate Professor of Nursing

Yvette Pryse, PhD, RN
Associate Director of the Undergraduate Program
Associate Professor of Nursing

The Theory Behind the Leadership

Within the past 20 years, technologies have greatly impacted education. Instructors have witnessed widespread classroom adoption of computers, the Internet, wireless and mobile technology. Now, the iPad and complementary apps and platforms, such as AppleTV, iTunes, the App Store, iBooks, and iTunesU, have provided an opportunity to go beyond impacting education and transform the way we learn, interact and collaborate. For UC CoN, this transformation has not occurred in a vacuum. It has been fostered by an organizational culture that embraces technology in the classroom, along with committed leadership and a partnership between information technology (IT), instructional design and subject matter experts. To drive a culture change, the CoN initially implemented a technology-driven strategic plan, and with that as a foundation, we have:

*Matt Rota, PhDc
Director, Center for Academic Technology, Educational Resources and Instructional Design*

- Developed a customer-oriented support philosophy
- Created a robust training program for faculty, staff, and students
- Created innovative learning spaces

- Improved student and faculty access through the use of technology

Driving Technology Adoption

The degree to which faculty and students adopt, integrate, and leverage technology is closely linked to the quality of support, development, and design services readily available to them. The support infrastructure must be consistently customer-focused, high energy, rapid-responding, and forward-thinking so that faculty and students are willing to try new technologies. At the CoN, the TPACK Model, the Whole Product Model, and the Technology Adoption Life Cycle, coupled with an organizational vision to creatively leverage technology, created the comprehensive framework to advance the pioneering of iPad tablets in the classroom, lab, and clinical settings. The TPACK Model describes the positive interactions that flow from a synergistic relationship between faculty, instructional design professionals, and information technology professional. The Whole Product Model defines a comprehensive list of services (support, development, training, communication, marketing, etc.) needed to make a technology initiative successful. This framework allowed the CoN to transcend adoption and redefine

pedagogical strategies as described the SAMR Model.

Matthew Rota, PhDc

Director of Technology Enhanced Learning and the Center for Academic Technologies and Educational Resources (CATER)

Community Engagement

It is an exciting time for our students at Hughes STEM High School. We are inspiring our students to expect more from themselves and their education – to dream bigger than they thought possible.

We do this by extensively integrating technology into the curriculum and emphasizing experiential learning through job shadowing, internships and summer opportunities that allow students to earn college credit and professional certifications. This kind of approach provides a seamless pathway into college and, eventually, a career.

Our partnership with the University of Cincinnati fits perfectly with this philosophy. Through the Pathways for Emerging Health Care Leaders program, students are introduced to the colleges of medicine, nursing, pharmacy and allied health sciences through interactive, technology-based programming. This gives them a real-world look at health professions majors and the kinds of jobs available to them in these fields after they graduate.

*Ronnda Cargile
Director, Innovation Lab
Hughes STEM High School*

As the director of the high school's Innovation Lab, I'm fortunate to have a front-row seat to the kinds of authentic experiences that are afforded our students through the partnership, and the innate ability of program coordinators to build meaningful interactions that not only support, but in some cases shape and stretch, the understandings that our students have about the world in which they live.

It's truly empowering and life-changing for many of our students, and I look forward to continuing and expanding this partnership within the coming years.

Ronnda Cargile
Director, Innovation Lab
Hughes STEM High School

As the Interim Chief Administrative Officer and Vice President of Patient Care Services of a large academic medical center in Cincinnati, I am reminded on a daily basis how technology is changing and advancing in the healthcare industry. As a bedside care provider it is important that we are competent in the latest technologies so we can ensure we are providing the safest care possible. I strongly feel the future of nursing will require proficiency in technology. Instilling

these skills early in a nurse's education is the key to acquiring and retaining

knowledge of technology. Technology continues to change the landscape of health care, and I am encouraged to see the skills recent UC College of Nursing graduates are bringing to the workforce. The ability to effectively apply these skills will greatly impact patients, visitors and associates every day. The College of Nursing federally-funded interprofessional practice project using iPads at the bedside to access medical records during interprofessional rounds is an excellent example of how we are utilizing technology in our interactions with our patients. Technology is

allowing us to provide more accurate and effective care which increases the overall patient experience.

Jennifer Jackson, DNP, RN, CNRN
Vice President of Patient Care Services and Chief Nursing Officer Interim Chief Administrative Officer University of Cincinnati Medical Center

Jennifer Jackson, Vice President of Patient Care Services and Chief Nursing Officer Interim Chief Administrative Officer University of Cincinnati Medical Center

Innovative Learning and Teaching

Student Learning
Learning is a personal experience for every student.

Instructional Practices
Faculty are master learners who expertly guide their students through difficult and complex tasks.

Curriculum Design
Innovative and rigorous curriculum is designed to leverage technology.

Student Learning

iPads enable instructors to take their teaching to a whole new level by facilitating on demand access to online resources, eTexts, and a myriad of apps. The use of iPads as an interactive tool is only limited by the imagination of the instructor. Utilizing **AirPlay** to share a student's screen shifts the focus from faculty-centered, to one that places the student at the center of the learning activity.

Use of iPads in the simulation lab affords **UC CoN** students a distinct advantage over competing schools of nursing. **UC** students record themselves completing skills in order to provide opportunities for self-evaluation and reflection and ultimately, greater student awareness and confidence. Students at **UC CoN** are truly icons of what a 21st century nurses should be when they enter the health care settings of today.
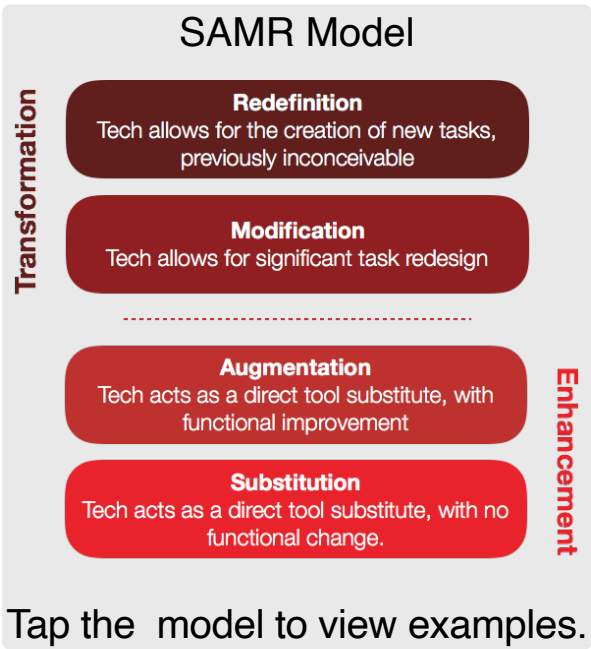
When **UC CoN** students enter a clinical site, our goal is for them to stand out among the crowd. These students, regardless of level of education, enter the clinical site with the confidence and competence to access tools without being so distracted by technology that they appear disconnected from the patient. They are not necessarily reliant on books or laptops to access pertinent information, rather they have a large repertoire of resources at the touch of a finger in the highly portable iPad format. Students can access information about medications and patient diagnoses as well as provide on-the-fly patient education utilizing a variety of apps and online resources.

Instructional Practices

The SAMR model, developed by Ruben Puentedura, is used to integrate iPads into instructional practices. Instructors are devising uses for iPads in a variety of instructional settings across the curriculum including undergraduate **BSN**, master of science **MSN**, and doctoral **DNP** courses in both onsite and online formats.

SAMR Model

Transformation

Redefinition
Tech allows for the creation of new tasks, previously inconceivable

Modification
Tech allows for significant task redesign

Augmentation
Tech acts as a direct tool substitute, with functional improvement

Substitution
Tech acts as a direct tool substitute, with no functional change.

Enhancement

Tap the model to view examples.

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Interesting Infographics

"Students in the Doctor of Nursing Practice (DNP) Program work to curate scholarly articles and create their own content for the course Essentials of Research Methods for Evidence Based Practice. For this assignment, students receive an introduction to methods of evidence based practice from faculty. Students are then divided into groups of two and assigned a model of evidence based practice (EBP). The first part of the assignment requires the students to summarize the model and the types of projects for which the model is appropriate, by creating a video using Explain Everything. Additionally, students develop an infographic to provide a clear snapshot or summary of the model for quick reference. As a culminating finale, the students work through the process of choosing scholarly articles that use or are associated with their assigned EBP model. All of these materials are then shared with other classmates through an iBook for further contemplation and discussion." **Melissa Stec, DNP, APRN, CNM, FACNM, Apple Distinguished Educator.**

Dr. Melissa Stec

Building Pedigrees

Dr. Yvette Pryse

"Learning is more fun when the student is immersed in the experience and "creates" something. Invitae Family History Tool, helps the novice nurse create a visual family history or pedigree which is a key part of evaluating a patient's genetic health and determining if further genetic testing is needed. The student, utilizing their own family kindred, engage in a personalized genetic assessment with the app . Data collected is evaluated and the student interprets and makes genetic recommendations. This assignment supports learning how to conduct a genetic assessment in a fun and personalized manner, promotes beginning evaluation and referral skills, and also supports the use of technology as an assessment and teaching tool at the bedside." - **Yvette Pryse, PhD, RN, Executive Director of the Undergraduate Program, Associate Professor of Nursing**

Educating First Responders

Angela Clark, PhD, RN, assistant professor at the University of Cincinnati (UC) College of Nursing has developed a multi-touch book using iBooks Author aimed at preventing opioid overdoses. The 23-page book used to educate first-responders describes what opioids are and what they do in the body. In addition to text and photographs, the book has interactive videos and tools to help facilitate a discussion on the dangers of opioids. "Through technology, we're able to prompt interventionists in a way that's engaging for everyone," Clark says. "I tapped into the College of Nursing's vision to leverage technology to transform health care, in partnership with the people we serve."

Dr. Angela Clark

In Dr. Carolyn Smith's course, students show up knowing to expect a quick quiz on the online lecture and multi-touch book that were assigned to review prior to coming to class. The real-time assessment, which students respond to by using socrative.com from their individual device, allows Dr. Smith to gauge the class's current level of knowledge and understanding of the new concepts. From there, she can provide a mini-lecture on targeted topics, if needed. This frees up the rest of the class to apply the new knowledge in ways that better mimics situations that students would encounter in the clinical setting. In addition, it shifts Dr. Smith's role from a lecturer to a coach and facilitator which allows students to explore solutions to the issues they are facing in clinical. Dr. Smith approached her Evidence-Based Practice course, just as she expects her students to approach clinical issues. She identified flipping the classroom as an issue to explore. She conducted a literature review to see what current research findings were. Then she conducted her own in-depth evaluation to see how traditional lecturing compared to active learning strategies. After seeing evidence of the benefit for her own classroom, Dr. Smith began developing a community of practice around active learning strategies at the college. The flipped classroom approach allows students to apply the same strategy when identifying and developing a clinical recommendation for an issue. One of the goals of the course is to help students develop the leadership skills needed to identify the best practices and current evidence and implement it to improve an identified outcome. In Dr. Smith's class, instead of listening to lectures about the evidence-based clinical approach, students discuss their clinical experiences and apply the approach during class. First, students identify an issue to explore. They then conduct literature searches, identify an appropriate evidence-based model, and in the end, present an iMovie presentation with their findings and recommendations to the clinical site.

Senior Capstone

Students partnered with a local elementary school to develop a hand hygiene education program for students to improve compliance and thoroughness of hand washing. The program involved a pre-test, teaching, Glo-germ, puzzle activities and a post-test. To develop the interactive game, the team partnered with computer engineer Tim Butram.

Click to view the game
http://germbuster.xyz/

Evidence-Based Practice

Students in Dr. Smith's Evidence-Based Practice course, identified skin preparation techniques as an issue to explore. They found that the practice utilized in their clinical setting was no longer in alignment with the current evidence. They made a recommendation to the clinical site. As a result, the practice was updated at the medical center. This approach allowed students to gain real-world experience as informed consumers of research evidence to guide their clinical practice.

Dr. Carolyn Smith

In May 2015, Cheedy Jaja, PhD, associate professor of research at the College of Nursing, helped found Dream Home, an orphanage that cares for children in Sierra Leone orphaned by Ebola.

Jaja became involved in Dream Home during his first round of Ebola relief work in December of 2014, when he learned of plans to establish an orphanage for children who lost parents to Ebola.

With help from community members and nonprofit organizations, Dream Home opened its doors to its first residents in May of 2015. Located in Wellington in the eastern outskirts of Freetown, the orphanage houses children ages 2 to 17. The majority of children living in Dream Home lost both parents to Ebola. A staff comprised of a foster mother and father, a part-time nurse, two cooks, two security personnel and an orphanage director and secretary ensure the children live in a supportive home that not only meets all of their needs but also fosters dreams.

Some of Jaja's students at the UC College of Nursing have gotten involved. They have established a telehealth program to monitor the children at the orphanage and do physical assessments via video conferencing using iPad tablets.

"The UC nursing students have created a template so that in the fall when another group of students signs up for the community nursing course, they will continue the project," he explains. "What's innovative about this is that it's a way of getting the students involved in global health without moving out of the country."

In the future, Jaja and students hope to develop and install an iPad-compatible app that allows Sierra Leone nurses to input children's health data on a daily basis. This would provide fluid, cohesive assessment information. They also plan to create an interdisciplinary team that includes College of Medicine students, who would provide consultations, if determined necessary by nursing students.
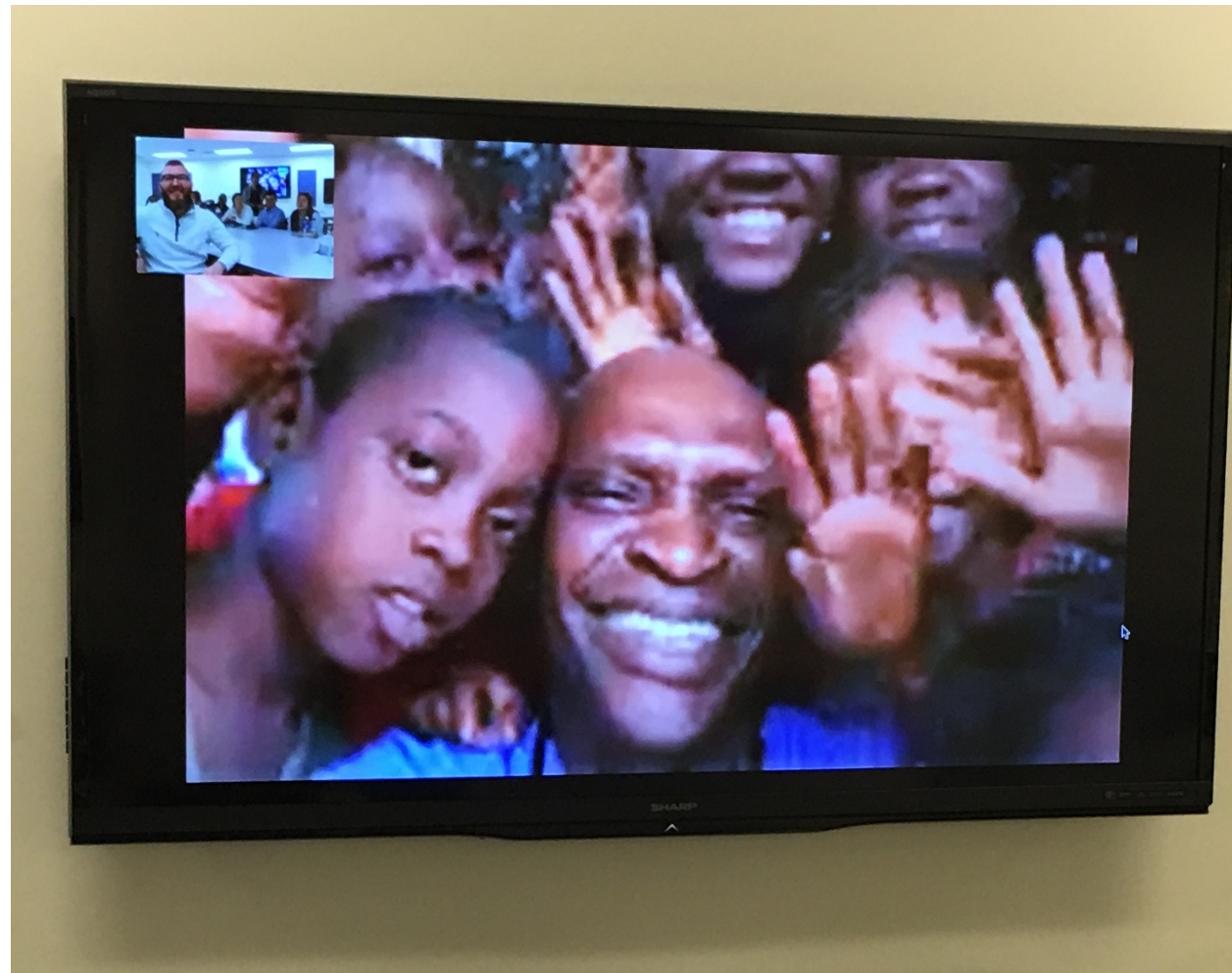
Dr. Cheedy Jaja

Curriculum Design

Through creative leveraging of technology, UC College of Nursing will lead the transformation of health care in partnership informed by the people we serve.

- University of Cincinnati, College of Nursing Vision Statement

This vision drives the iPad initiative, which in turn, serves to support the operationalization of the curriculum. The **CoN** faculty bears responsibility for all curricula matters while adhering to external accrediting bodies' requirements, such as American Association of Colleges of Nursing. Among the AACN requirements, Essential IV requires that the nursing student acquire the knowledge and skills in information management and patient care technology which are critical in the delivery of quality patient care. iPads provide the tool to support the student experience in using technology to communicate effectively with members of the health care team through **DocuCare**. iPads also provide a range of technologies that support patient care and patient education. In the didactic setting, technical support of interactive learning strategies drives the successful acquisition of student learning outcomes that are mapped to the curriculum. The iPad Initiative provides the tools necessary for interactive engagement in the classroom, thus supporting the delivery of standard driven curricula.

"The iPad allows flexibility to engage students problem solving case studies through their didactic courses. This project was a web based virtual simulation case designed by a collaborative team; Sara Dawson, simulation expert, Emily Myers, senior instructional designer, Steve McKinney, videographer and Myrna Little, clinical instructor. The ability to visit the complex older adult client in his home was delivered through iPad format and allowed the students to engage in the application and syntheses of knowledge. The students have the opportunity to assess their degree of understanding in handling problems that relate to the discipline, thus building deeper understanding of what they may encounter in nursing practice. This engaging group project served as the culmination of the learning outcomes woven throughout the iBooks that were utilized to deliver course content." *Myrna Little, MEd,BSN, RN, Clinical Instructor*

Professor Myrna Little

Ongoing Professional Learning

Relevant and Timely Professional Development

Faculty engage in a cycle of inquiry that promotes reflection, experimentation, and sharing.

Relevant and Timely Professional Development

The goal of the iPad Initiative professional development went beyond teaching the how-to knowledge to use an app, website, or piece of software. Professional development was designed to build momentum, community, sustainability, and pedagogical context around the initiative. **UC CoN** realized that this was critical in making the initiative a success and invested heavily in this area.

Building a Foundation

The iPad Initiative journey started with something as simple as finding a replacement for old-fashioned document cameras that needed replacement in the classrooms.

Being impressed with the iPad camera and its ability to be easily manipulated by angle, zoom and annotation, **CATER** investigated what it would take to wirelessly connect the device to the classroom projector. Using **AirPlay**, **CATER** discovered that they had achieved more than a great document camera. Classrooms now had a great whiteboard as well. In fact, through the use of the **Jot! Whiteboard** app, the whiteboard was interactive and easy to use in a large lecture hall for the very first time. Further, by anchoring an iPad in each classroom every faculty member had the ability to tap into a vast and ever-growing ecosystem of amazing apps. As professional development sessions were held on the new document camera solution, **CATER** discovered that faculty were interested in experimenting with these apps outside the classroom. Faculty began learning and sharing innovative ideas as a result of this new solution.

Professional Development Timeline

Professional Development Timeline

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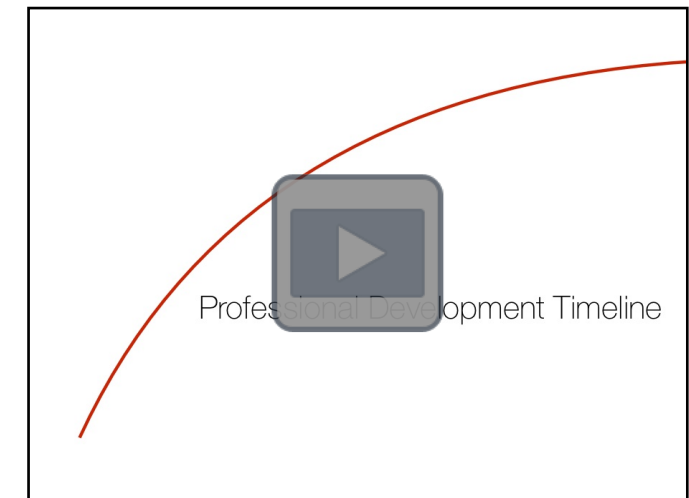
iPad Institute 1.0

In order to test interest and feasibility, **CATER** secured funding from college leadership for ten iPads. Interested faculty submitted an application that defined a problem that they wanted to explore using iPads during the Fall 2012 term and a plan for doing so. Senior faculty members also donated funding for three additional iPads to bring the count to thirteen available devices. Another eight faculty members stated they already owned an iPad and wanted to be part of the **Institute** group. This brought the group to a total of twenty-one participants.

In March of 2012, the iPads were distributed and the initial cohort began its journey with two half-day training events where the basics of using iOS for personal and daily office task use were covered. Faculty members were encouraged to use the iPad they were given as their personal device. The purpose was for faculty to build comfort and understanding of the device. The ultimate goal was for faculty to identify how their classes could benefit from this new technology.

In August of 2012, the cohort came back together for two full-day training events. This training was packed with presentations from faculty members from other colleges that were already experimenting with using iPads, Instructional Design (ID), and

Unboxing Event
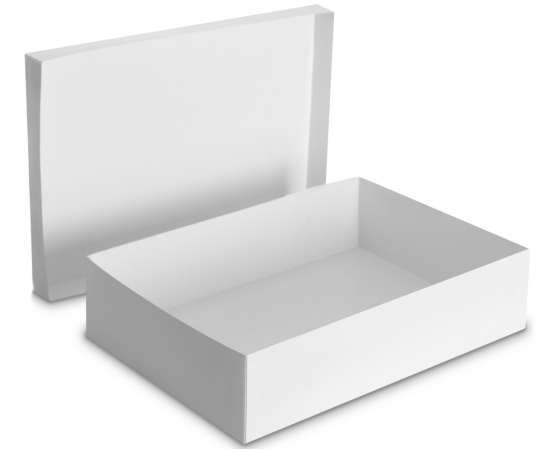
Photos from the Unboxing Event

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Charity Combs, Dr. Seong-Yi Baik, and Dr. Judy Audas working at the iPad in the Classroom Summer Institute (iPad Institute 1.0)

• •

demos of nursing specific apps. At the end of the two days, technologists partnered with faculty members on their individual development plans. Throughout the term, the participants met to discuss how the plans were progressing and faculty interests began to develop around not only iPads but the standardized productivity apps loaded on iPads. Interested faculty rallied to support each other on their quest for mastery and to use the tools to the fullest extent. In addition, as the early adopter cohort gained momentum, a desire and excitement to join the group

Standardized App Posters

Each standardized app was promoted throughout the college with customized posters & QR codes that could be scanned to download the apps

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from outsiders began to grow. To accommodate this growing desire, **CATER** began to schedule open trainings for anyone to attend.

In the spring, results of the plans were presented to the community. Interest was beyond what the college could have expected. Attendance of the forum resulted in a standing room only event with audience members flocking from other areas of the university. The program ran well over time with lots of eager questions from the audience.

iPad Institute 2.0

In Spring of 2013, the college realized something special was occurring inside iPad centric training events. Excitement around this new technology was growing. Use cases had moved beyond how faculty could engage students to how students could engage with the content, faculty, and each other. The **TPACK** framework was being realized as people with content, technology and pedagogical expertise collaborated on the solution. The momentum of faculty interest generated the decision to ask BSN students to purchase iPads. Faculty endorsed the use of iPads in their courses in the **BSN** program and the **DNP** program in Fall of 2013.

Community Presentation Topics

During the June 2013 Summer **iPad Institute**, faculty, **CATER**, and the **ID** team worked together to expand upon the two-day training from the previous summer. In planning for the event, the group realized a need to move beyond use case application and to begin pushing movement up the **SAMR** model. This was reflected in the need for a third day that focused specifically on using apps for assignments.

As the school year began, app-specific trainings for faculty continued. However, unlike the previous year, these trainings were built with a partnership between **ID** and **CATER**. This encouraged innovation and further exploration of the flexibility of iPads.

iCoN Initiative

During the summer of 2013, the iPad initiative was rolled out to students and renamed as the **iCoN** Initiative. Faculty voted to support the initiative, and a student iPad requirement was made for all incoming **BSN** and **DNP** students. As of 2014, the college requires an iPad mini 32GB for all incoming **BSN** students, **DNP** students and Adult-Gerontology Acute Care Nurse Practitioner program students.

In the past, technology professional development opportunities for students were limited and rarely provided at the college level. However, with this initiative and given the diversity of age, background and socio-economic status of the students, the **CoN** believed that students needed a basic understanding of the technology to ensure that lack of familiarity with the tools did not interfere with the learning process.

Seth Thompson presenting at iCoN 2.0

To create this foundation, **BSN** students took part in a one-day, iPad orientation. **MSN** and **DNP** students had orientation integrated into their courses. In 2014, faculty collaborated with **CATER** to integrate freshman iPad orientation into the Freshman Success course.

Into the Future

Today, the **UC CoN** Summer **iCoN Institute** (as it has come to be called) is a two-day, conference-style event that is attended by faculty and staff of the College of Nursing along with interested parties from the greater university community. During summer of 2014, the event reached an all-time high of 90 participants.

Student orientation to iPads is integrated into freshman courses to reduce the need for an all day event. In addition, through the development of the **iCoN Ambassador** program, students are engaged to lead peer training programs and provide one-on-one assistance to classmates. This further prepares **CoN** students to act as leaders in the health care settings of tomorrow.

Compelling Evidence of Success

Quantitative

Data is routinely collected and analyzed to inform progress and success.

Qualitative

Narrative, reflective, or anecdotal evidence is collected and shared.

Quantitative

The **UC CoN** routinely collects data from faculty and students related to their perceptions of the iPad initiative. The most significant sources of quantitative data thus far have come from three different surveys:

EXPLORING ADAPTATION OF FACULTY, STAFF, & STUDENTS TO A CORE CURRICULUM DELIVERED VIA IPAD

This mixed methods study, led by Senior Faculty Member, Dr. Theresa Beery, was approved by the **UC** Institutional Review Board (**IRB**). Beginning in the 2013-2014 academic year, all onsite, sophomore **BSN** and online **DNP** students were required to purchase iPad minis to be used in both classroom and clinical settings. The team recruited sophomore **BSN** students, **DNP** students, faculty, and Office of Student Affairs (**OSA**) staff to participate in this study. The students, faculty, and staff were surveyed at the beginning, middle, and end of the academic year (i.e., August 2013, November 2013, and April 2014). During the summer of 2014, the team collected data from a second cohort. The team distributed surveys to freshman, sophomore, and junior-level (formerly sophomores in the initial study) **BSN** students, as well as **DNP** students and faculty beginning in the fall of 2014. The intent of this study is to measure student and faculty attitudes and perceptions of the iPad initiative over time while guiding the adaptation of iPads based on the changing needs of faculty and students.

In addition to the quantitative survey data, we collected qualitative data from student, faculty and staff focus groups (See Qualitative section on the following page).

We will be collecting these data from each cohort as the iPad initiative moves forward.

SOPHOMORE BSN SURVEY

In addition to the formal research study, an ad-hoc group of faculty conducted their own classroom assessment survey shortly after the fall 2013 semester began. The data were used to

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inform faculty and staff of student needs related to iPad use in the classroom so that feasible changes could be made early in the semester.

POST-TRAINING SURVEYS

The Ohio Board of Nursing (**OBN**) approved continuing education (**CE**) hours for registered nurses (**RN**s) for the **CoN** iPad-related training sessions. In order for a professional development training to meet the **OBN** state **CE** requirements, attendees must complete an evaluation that documents their perceived achievement of the session's learning outcomes. **CoN** faculty and staff use data from the evaluations to continually improve training and provide faculty and staff with the most relevant professional development possible.

Carolyn Smith, Ph.D. RN, Assistant Professor

ACTIVE LEARNING OUTCOME EVALUATION TEAM

In order to continuously improve nursing education, it is critical that we keep a pulse on the use and effectiveness of new methods of teaching and learning. Two members of the college, Dr. Carolyn Smith and Dr. Tracy Pritchard chair the Active Learning Outcome Evaluation Team (previously known as the iPad Outcome Evaluation Team).   This team has identified several data points that they are collecting and monitoring over time. This includes surveys to faculty and students at different points during the year. In addition, in 2016 a senior exit survey was added to track data from the first one-to-one graduating cohort through future cohorts. The surveys, which are geared individually to faculty and students, are designed to gain a sense of how the iPad was being used both in and out of the educational space. Data from the surveys is being used to guide further faculty development in specific active learning strategies. In addition, the data is being monitored to identify trends and changes among incoming students; as well as, while students progress through the program.

*Tracy Pritchard, Ph.D.
Director, Center for Educational Research, Scholarship and Innovation
Research Associate/Grant Writer*

Qualitative

In addition to the quantitative data, there is a myriad of qualitative evidence of the impact of the **CoN** iPad initiative.

EXPLORING THE ADAPTATION OF FACULTY, STAFF, AND STUDENTS TO A CORE CURRICULUM DELIVERED VIA IPAD

> *"I think it'll be... awesome to just have to carry,...one thing - that's all. Instead of having to carry big books and lots of paper, and 'oh, you forgot a pen or you need a pencil,' or anything like that, you just basically have this one thing, right in front of you, and it can do everything for you."*
>
> - BSN Student, Fall 2013 Focus Group

> *"I think that the College of Nursing is doing a great job trying to incorporate the iPad… I love it here and I'm so honored to be a part of the CoN."*
>
> - BSN Student, Student Satisfaction Survey

We conducted focus groups of **BSN** students (3 groups), **DNP** students (1 group), and faculty/staff (3 groups) for the 2013-2014 cohort in the fall prior to the start of classes and in the spring at the end of the 2013-2014 academic year. These data are currently being analyzed and will inform our understanding of the quantitative data. Preliminary coding of the fall data has resulted in a number of themes, including the benefits of technology, ease of access to resources, but also some frustration and concern about pragmatic things, such as cost of the device and keeping the battery charged.

SATISFACTION SURVEYS

Each year, the **CoN** issues a survey to all students to gauge their feelings of satisfaction about many different components of their education, experiences, and the college, including the use of technology. Additionally, the **CoN CATER** team surveys faculty and staff to measure their perceptions of technology use in the college. The surveys for the 2013-2014 academic year did not include questions specifically related to the iPad initiative, as not all academic programs within the college are part of the initiative. While the focus of these surveys is quantitative data collection, several faculty and students felt compelled to share their experiences with the iPad in the comments area of the survey.

STUDENT WORK

Many students are proud of the work that they have done as part of the iPad Initiative and have been willing to share their projects both inside and outside of the college. Another important student

> *"A lot of the teachers have been using it well. I think it is just finding the right apps that work best and slowly integrating that in. Last year in genetics we used the Flipboard app and doing that got us involved with the iPad and got us more involved than just writing on plain old paper. There are other apps that are helpful along the way, like ones for heart murmurs. If I do end up on a cardiac floor, now I know what to listen for, and it gives me practice and a resource that is readily available. When you Google something, you don't know what you're getting."*
>
> - Jeff Maler, BSN Student

project is a video assignment using iMovies in Dr. Karen Bankston's **Leadership 2.0 Summer Bridge Program** (see below for more information). Students were asked to create a video to share what they learned from a windshield survey done with Dr. Rebecca Lee. Their journals were then shared with other members of the summer bridge program, **CoN** staff, and faculty as part of a professional development session about iPhoto for iOS.

MEDIA RECOGNITION

The iPad Initiative has received significant internal and external media interest in the potential impact of iPads on nursing education:

- February 28, 2013 - healthNews - Edwards Named 'Apple Distinguished Educator'
- June 3, 2013 - WXIX - UC Nursing

Students to Learn With iPad Mini

- June 19, 2013 - Campus Technology - U Cincinnati Implements 100 Percent Wireless
- August 6, 2013 - Cincinnati Business Courier - UC Nursing Students Trade Textbooks for iPads
- August 9, 2013 - Cincinnati Business Courier - At UC, nursing students swap books for iPads (Page 8)
- August 21, 2013 - healthNews - Nursing Students Go iTech with iPad Orientation
- August 27, 2013 - The News Record - UC College of Nursing now Requires iPads, Students Pay Bill
- June 13, 2014 - VM Ware - UC College of Nursing Redesigns Course Delivery with iPads Managed my AirWatch
- August 25, 2014 – UC News – eLearning Champion: Nursing Student Creates Innovative iBook to Help Interventionists Rescue Drug Uses
- September 21, 2014 – Bucyrus Telegraph-Forum - Professors, Students Finding New Ways to Use Textbooks

Karen Bankston Associate Dean of Clinical Practice, Partnership, & Community Engagement, University of Cincinnati, College of Nursing

- November, 11, 2016 – healthNEWS – UC College of Nursing Receives National Innovation Award

ADDITIONAL MEDIA COVERAGE AND CITATIONS

- June 3, 2013 - KCTV - [UC Nursing Students to Learn with iPad Mini](#)

- June 5, 2013 - Uniea - [Nursing Students in UC Required to Use iPad Mini](#)

- June 19, 2013 - DiversityNursing Blog - [Local Nurses Learn to Use iPad for Patient Care](#)

- August 6, 2013 - Financial Content - [UC Nursing Students Trade Textbooks for iPads](#)

- August 7, 2013 - World News - [UC Nursing Students Trade Textbooks for iPads](#)

HIGHLIGHTED EXTERNAL CONFERENCE PRESENTATIONS

- August 2013 - Apple Distinguished Educator Institute

- August 2, 2013 - Presentation at CCHMC

- October 20, 2012 - Presentation to Foundation Board

- November 2013 - Sloan-C

- January 2014 - UC Teaching and Learning Showcase

- March 2014 - HJ Sims 2014 Late-Winter Conference

- March 2014 - 3T

- March 2014 - Innovate

- March 2014 - Connecting the Dots: You & the Hottest Trends in eLearning

- April 2014 - NONPF Conference

- April 2014 - Lilly Conference on College Teaching

- September 2014 - Active Learning for the Technology Enhanced Classroom

- Glazer, G. & Willmarth-Stec, M. (2015, January). Operationalizing

Flexible Learning Environment

School Design and Facilities

Facilities and schedules are designed to maximize learning opportunities that technology provides.

Information Technology (IT)

IT infrastructure supports innovation in teaching and learning.

The **UC CoN** environment is designed to meet both the technological and pedagogical needs of its various academic programs. The inter-professional collaboration of faculty, **ID**, marketing, **CATER**, **IT@UC**, and university community teams has resulted in an environment that fosters innovative teaching and learning in both Procter Hall and **UC** East.

School Design and Facilities

EVOLUTION

As iPads were adopted by faculty, the technology infrastructure of the **CoN** was bolstered to meet the needs of this initiative. **CATER** partnered with **UCIT** to deploy additional network equipment around high traffic areas in the building. This partnership facilitated the use of iPads and **Apple TVs** as the lynchpin of this learning initiative.

As mentioned earlier, **CATER** initially identified the document camera as a technology function that the iPad was suited to replace.

This was implemented in conjunction with Mophie iPad stands and iPads for each classroom. The iPads were

Evolution of the Document Camera

Traditional document camera in the classroom

● ● ● ● ●

connected with a cable to the projector and the stand allowed for documents and objects to be projected onto the screen.

Next **CATER** and the **ID** team added on this platform with the app, **Jot! Whiteboard**. This tool provided white board features as well as collaborative annotation from multiple

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users overlaid on what was being projected

Placing the Apple TVs on the **UC** network provided the ability for students and faculty to mirror their iPads on the classroom screens. This led to the removal of iPads at each lectern as each individual now had a device that allowed them to individually contribute to content creation. This mobility provided participants with the ability to collaborate throughout the learning space. This opened the door to designing spaces that could encourage this kind of collaborative learning. After the pilot use of a **collaboratory** space beginning in 2012, **UC CoN** renovated additional smaller classrooms to larger collaborative learning environments during Fall 2014.

Evolution of Learning Spaces

Original classroom

● ○ ○ ○

maintaining the freedom to walk around the classroom. Instructors can also engage each student and provide them the opportunity to share their content on the main screen or on smaller group screens.

iOmounts have been adopted throughout the facilities to allow for a "steady doc-cam" experience, as well as provide a docking station for iPads when the presenter needs to be hands free.

The QR code software and app, **Scan - QR Code and Barcode Reader** was used to allow faculty and students to check room schedules and availability of the classroom space. QR codes were placed outside each room. The codes link to the schedule for each individual space.

AIRPLAY

AirPlay has been critical in allowing faculty and students to fully collaborate and engage in the learning environment. Use of **Apple TV**s and **AirPlay** has extended throughout the facility for use in conference rooms, huddle stations, and on digital signage monitors. This integration allows for ad hoc meetings and collaborative learning to occur around the college. Students can easily share ideas as they have access to monitors and a team table equipped with 55"

3-D Model of New Collaborative Space
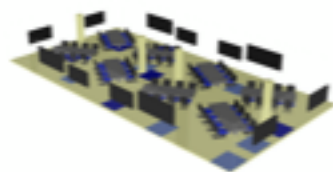
The spaces are designed to allow students, with their iPads, to work as an entire class. They can seamlessly break out into smaller groups without disrupting the flow of learning. The instructor can present via **AirPlay** thus

Clinical Skills Demonstrations in the Classroom

Professor Lori Catalano & Professor Robin Wagner use the Camera App with AirPlay for a skills demonstration

• ● ●

television and **Apple TV**.

DOUBLE

iPads have also enabled faculty and students to stay connected while not physically present at our facilities. **VMware Horizon View Client** and **Junos Pulse** allow for use of our virtualized environment from anywhere in the world. The college's **Double Telepresence Robot** device allows individuals the ability to navigate the environment and communicate with others. The device allows the Office of Student Affairs to provide tours of the college right from their booth at high schools and conventions. It also allows individuals who are ill, affected by severe weather or geographically distant to attend events remotely. The Double also allows students to simulate **telehealth** experiences by controlling the device and interacting with onsite students in the simulation labs.
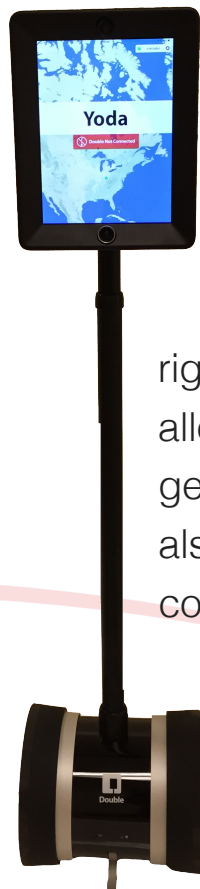
NURSING SKILLS LABS

In an effort to comprehensively allow students and faculty to be as successful as possible with iPads within the simulation environment, the **CoN** Nursing Skills and Simulation Labs were upgraded. **Telehealth** devices such as **VGo**, **InTouch Health RP-7i**, and a **Swann** camera system greatly enhanced student learning within the simulation environment. These tools are used to teach core technical skills and more importantly, to teach the nuances of how to care for patients in rural geographic areas through telepresence devices. FaceTime is also used to demonstrate **telehealth** communication from provider to bedside.

The camera system is critical as it allows the capturing of simulations and skills demonstration from several angles. Students are then able to individually review his or her practice and actions in context of the simulation team.

CONTENT CREATION

The **CoN** uses various iOS tools such as iMovie, **Jot! Whiteboard**, Camera, **Kaltura MediaSpace** and others to create and distribute learning-rich

Nursing Lab Clinical Skills

iPad in skills lab as a collaborative learning tool

iPad and Telepresence
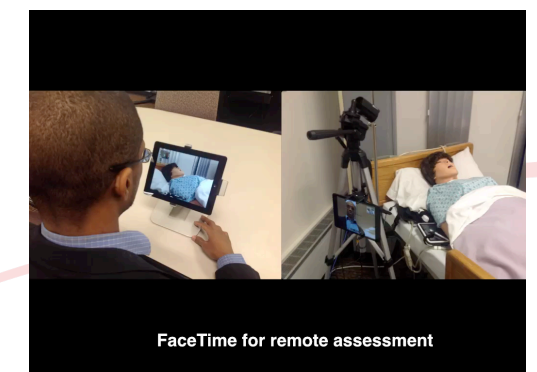
FaceTime for remote assessment

= 5 iPads

Spring Semester 2012 (13 iPads)

Fall Semester 2013 (200 iPads)
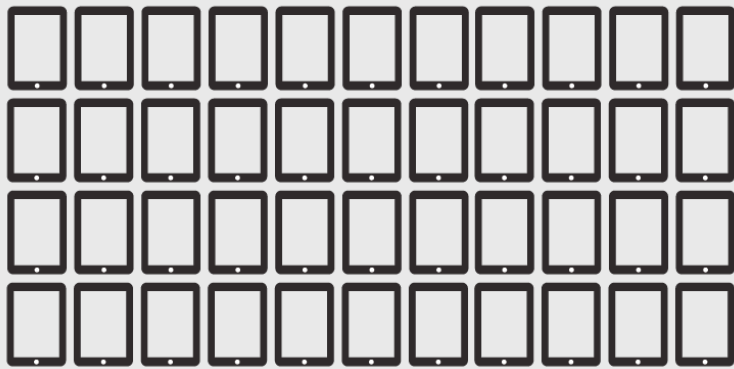
Spring Semester 2014 (400 iPads)
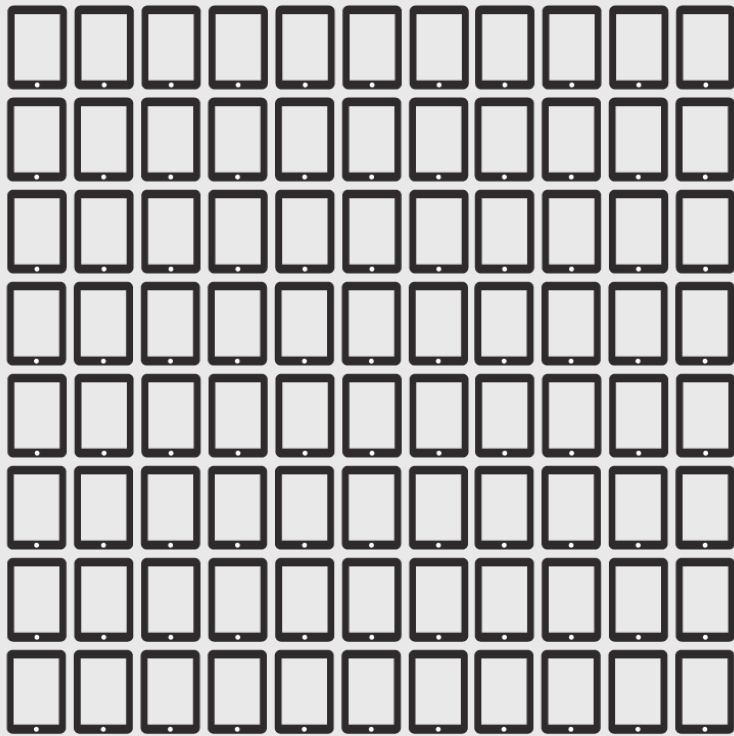
2014-2015 Academic Year (900 iPads)

content. These tools are used for lecture capture, projects, and as innovative platforms to submit assignments. Use of these tools is enhanced by devices including **Swivl**, **iOmounts**, and an iPad camera conversion kit.

Information Technology (IT)

As implementation of the **iCoN** initiative progressed, the college was faced with quite a challenge. How does the **CoN** configure, deploy, and manage an entirely new device? How does scaling distribution from less than 20 to more than 500 work? And how does the organization prepare to absorb another 200 or more new devices ever year? How does the institution

AirWatch Administrative View

Administrative App Catalog

maintain a network that can handle the rush of traffic from that many devices in a single space

AirWatch Student View

Student Login Page

all at once?

Fortunately, the **CoN** found that there were various solutions for these numerous questions.

In the beginning, distribution was manageable enough that most things could be addressed with tools already in place. The University of Cincinnati's central IT group, **UCIT**, already maintained an Apple **MDM** server which the college was able to utilize primarily for inventory purposes. In conjunction, the college's SharePoint intranet site was used to centrally

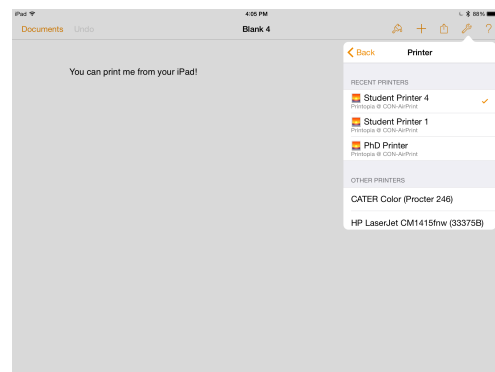house the app code spreadsheets to track purchases made through the Apple Volume Purchase Program.

With 20 iPads college-wide, this solution was adequate. However, it did not scale to meet the needs of 200+ students entering the program with an iPad requirement.

To solve this problem, the **CoN** worked again with **UCIT** to identify an **MDM** platform for iPad configuration, management, app distribution, and inventory. As part of a final capstone project, a graduate student conducted an independent study to help identify an **MDM** solution not just for the College of Nursing, but for the University of Cincinnati as a whole. The solution chosen was **AirWatch**, now owned by VMware.

Printing from Pages for iOS

Piloted by the **CoN**, **AirWatch** was able to provide self-enrollment for student iPads, allowing them to configure their own devices for use in our facilities. This platform also gave **CATER** the ability to manage all iPads in order to administer new policies and enhanced features, easily distribute app codes, and maintain an accurate count of licenses. It also provides a mechanism for keeping a current inventory of all devices in the college. Lastly, it provides enhanced security measures should an iPad be lost or stolen.

While the solution for the configuration, management, distribution, and inventory of Pads was being developed, attention was also focused on how the internal network could be enhanced to handle the increased load of hundreds of new iPads utilizing it. Factors considered were the increased bandwidth generated by dynamic multimedia content delivered by iTunesU and iBooks. To truly make the classroom an interactive learning center for students, how could they be given the ability to share their own content with the entire room, but not be tethered to a podium? A two-pronged solution was developed to meet these needs.

Printing - Administrative View

Printopia Administrative Console

First, the available bandwidth was increased. To do this, **UCIT** worked with the **CoN** to identify heavily used classrooms for conversion to high-concentration areas. This process primarily involved adding wireless access points to help distribute the load caused by classes of over 100 students trying to utilize bandwidth-intensive applications and content at the same time.

Second, **UCIT** implemented Aruba's **AirGroup** solution. **AirGroup** acts as a central hub for devices such as **Apple TVs**, collecting and distributing their broadcasts so that all iPads on the network can

find and connect to them. In addition, the availability of **AirGroup** allowed the college to provide **AirPrint** functionality to students using **Printopia** to broadcast printers to iPads.

As a result of using these technologies, some companies have chosen to feature the **CoN** iPad initiative as an exemplar of their services. Both AirWatch® and ResponseWare® by Turning Technologies® highlighted the success of the initiative in utilizing their products.

Through infrastructure, the **CoN** has been able to incorporate iPads into the enterprise network. It provides the features that faculty, staff, and students need to succeed with their iPads and has been created with sustainability and scalability in mind.

iPad Integration

Students discussing the improvement of health care through the use of the iPad

Contribution and Credits

School Liaison

Sarah Ehrnschwender, MS, MBA
Director of Marketing
CONmarketing@uc.edu

In addition to the school liaison, the following people can address the content of this book:

Greer Glazer, RN, CNP, PhD, FAAN
Dean, UC College of Nursing
Schmidlapp Professor of
Nursing Associate Vice President for
Health Affairs
greer.glazer@uc.edu

Suzanne Perraud, PhD, PMHCNS-BC
Senior Associate Dean of Academic
Affairs
suzanne.perraud@uc.edu

Dama Ewbank
Assistant Director, Academic Health
Center
Public Relations and Communications
dama.ewbank@uc.edu

Special thanks to the following people for their contribution to this book:

Hollie Anderson	Jason Day	Kelly O'Brien
Judy Audas	Christopher Edwards	Santa Ono
Seong-Yi Baik	Dama Ewbank	Tracy Pritchard
Kathleen Ballman	Jeanine Goodin	Yvette Pryse
Karen Bankston	Denise Gormley	Matthew Rota
Melanie Bauer	Jennifer Jackson	Jennifer St. John
Theresa (Terry) Beery	Emanuel Lewis	Melissa Stec
Melanie Cannon	Jeff Maler	Seth Thompson
Shannon Carter	Steve McKinney	Robin Wagner
Lori Catalano	Emma Moore	Skylar Wells
Christine Colella	Emily Myers	Melissa Wilson
Charity Combs		

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How to Use This Multi-Touch Book

Pop-over: Tap the plus icon to access additional content provided as a pop-over.

Media: Tap the play icon to watch a video or animation or listen to an audio clip.

Text in **red** indicates that a term is defined in the glossary for the first time. Tap the word to access the definition.

Words in **bold** are glossary terms already mentioned in previous sections. Tap the word to revisit the definition.

Text **underlined and in blue** indicates a link to additional content on the web.

Tap here to return to the Visionary Leadership section.

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AIRGROUP

Aruba® AirGroup acts as a central hub for devices such as Apple TVs, collecting and distributing the broadcasts out so that all iPads on the network can find and connect to them. In addition, the availability of AirGroup allowed the college to provide AirPrint functionality to students using Printopia to broadcast printers to iPads.

Learn more at http://www.arubanetworks.com/pdf/technology/ TB_AirGroupWLANServices.pdf.

Related Glossary Terms

AirPrint, **Apple TV**, **Printopia**

Index   Find Term

AIRPLAY

"AirPlay lets you wirelessly stream what's on your iOS device and Mac to your HDTV and speakers. Or mirror exactly what's on your display to the big screen. Guests can even easily share their content with peer-to-peer AirPlay. Vacation photos, blockbusters, presentations, the latest games — AirPlay and Apple TV put it all on your TV" (Apple, Inc.)

Learn more at https://www.apple.com/airplay/.

Related Glossary Terms

Apple TV

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AIRPRINT

"AirPrint is an Apple technology that helps you create full-quality printed output without the need to download or install drivers. With AirPrint, it's easy to deliver full quality photo and document printing from your iOS and OS X apps. AirPrint is built into most popular printer models. AirPrint features include easy discovery, automatic media selection, and enterprise-class finishing options. Just select an AirPrint printer on your local network to print from your favorite iOS or OS X app" (Apple, Inc).

Learn more at http://support.apple.com/kb/ht4356.

Related Glossary Terms

AirGroup, **Printopia**

Index   Find Term

Chapter 1 - Flexible Learning Environment

AIRWATCH

AirWatch® by VMWare® is the mobile device management (MDM) platform chosen by the UC CoN for iPad configuration, management, app distribution, and inventory.

Learn more at http://www.air-watch.com/.

Related Glossary Terms

MDM

Index   Find Term

APPLE TV

"Apple TV gives you access to the biggest names in entertainment, in up to 1080p HD. Just plug it in and enjoy a whole world of movies, TV shows, sports, music, and more. And you can show anything that's on your iOS device or Mac on your HDTV with AirPlay" (Apple, Inc.).

Learn more at https://www.apple.com/appletv/what-is/.

Related Glossary Terms

AirGroup, **AirPlay**

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BSN

Bachelor of Science in Nursing

Learn more about the UC CoN BSN program at http://nursing.uc.edu/academic_programs/bsn.html.

Related Glossary Terms

Drag related terms here

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CATER

Center for Academic Technologies and Educational Resources; the information technology department for the University of Cincinnati College of Nursing

Learn more at http://nursing.uc.edu/centers/cater.html.

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Chapter 1 - Ongoing Professional Learning
Chapter 1 - Ongoing Professional Learning
Chapter 1 - Compelling Evidence of Success
Chapter 1 - Flexible Learning Environment
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Chapter 1 - Flexible Learning Environment
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CE

Continuing education hours

Related Glossary Terms

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COLLABORATORY

Innovative space designed specifically for student collaboration using the iPad.

Learn more at http://nursing.uc.edu/centers/cater/collaboratory/286.html

Related Glossary Terms

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Chapter 1 - Flexible Learning Environment

CON

College of Nursing

Learn more at http://nursing.uc.edu/.

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DNP

Doctor of Nursing Practice

Learn more about the UC CoN DNP program at http://nursing.uc.edu/academic_programs/dnp.html.

Related Glossary Terms

Drag related terms here

Index   Find Term

DOCUCARE

"By integrating clinical scenarios with web-based electronic health records simulation software, Lippincott's DocuCare teaches students to think critically about documentation while enabling faculty to measure their progress. This non-linear EHR solution works well in the classroom, simulation lab, and clinical practice" (Wolters Kluwer).

Learn more at http://www.lww.com/Product/9781451182460.

Related Glossary Terms

Drag related terms here

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DOUBLE TELEPRESENCE ROBOT

A remote controlled device operated by a user at a distance that allows them to navigate a venue and have two way video and audio interactions with those who are present.

Learn more at http://www.doublerobotics.com/.

Related Glossary Terms

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FLIPBOARD

"Flipboard is Your Personal Magazine. It's a single place to discover, collect and share the news you care about. Add your favorite social networks, publications and blogs to stay connected to the topics and people closest to you." (Flipboard, Inc.)

Learn more at https://flipboard.com/.

Download the app from the App Store: https://itunes.apple.com/us/app/flipboard-your-social-news/id358801284?mt=8.

Related Glossary Terms

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IBOOKS LECTURES

As part of the iPad Initiative, the faculty partnered with Instructional Designers to redesign their existing lecture presentations to utilize iBooks as a format to deliver enhanced lecture content incorporating original presentation materials, widgets and related textbook material.

Related Glossary Terms

Drag related terms here

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ICON

The name of the UC College of Nursing (CoN) iPad initiative. It was chosen because at UC, we are committed to being an icon for innovative nursing education.

Related Glossary Terms

Drag related terms here

Index   Find Term

ICON AMBASSADOR

iCoN Ambassadors are the first in a class to test new iPad apps and technologies for the Center for Academic Technologies and Educational Resources (CATER). They receive hands-on training by CATER team members and have opportunities to participate in special workshops facilitated by local technology and healthcare leaders. Additionally, they mentor fellow students to help them become iCoNs as well.

Related Glossary Terms

Drag related terms here

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Chapter 1 - Ongoing Professional Learning

ID

Instructional Design

Learn more about the UC CoN instructional design department at http://nursing.uc.edu/centers/instructional-design-center.html.

Related Glossary Terms

Drag related terms here

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INTOUCH HEALTH RP-7I

A remote controlled telehealth device operated by a user at a distance that allows them to navigate a venue and have two way video and audio interactions with those who are present. The RP-7i has attachments that allow for a stethoscope to be used between patient and provider at a distance.

Learn more at http://www.intouchhealth.com/products-and-services/products/rp-7i-robot/.

Related Glossary Terms

Drag related terms here

Index   Find Term

IOMOUNTS

Stands with a pivoting magnetic attachment that allow the iPad to affix to them, thus providing hands free use or use as a fully articulating camera.

Learn more at http://www.iomounts.com/.

Related Glossary Terms

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IPAD INSTITUTES

Professional development sessions related to the iPad held for CoN faculty and students by the CATER and ID teams.

Related Glossary Terms

Drag related terms here

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IRB

UC Institutional Review Board

Learn more at http://researchcompliance.uc.edu/HSR/IRB/Overview.aspx.

Related Glossary Terms

Drag related terms here

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Chapter 1 - Compelling Evidence of Success

IT@UC

An interdisciplinary community of technology users across the UC organization.

Learn more at http://www.uc.edu/ucit/about/itatuc.html.

Related Glossary Terms

Drag related terms here

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Chapter 1 - Flexible Learning Environment

JOT

"Jot! is a simple, fast whiteboard that lets you sketch out your ideas and share them in real time. Draw, take notes, or wireframe on your iPad quickly and easily as soon as ideas come to you. Share your ideas via email or save them as photos. Collaborate in real time over the internet with Live Sharing" (Tabula Rasa).

Learn more at http://tabularasalabs.com/.

Download the free app from the App Store: https://itunes.apple.com/us/app/jot!-whiteboard-free/id371937922?mt=8.

Download the paid app from the App Store: https://itunes.apple.com/us/app/jot!-whiteboard/id376133340?mt=8.

Related Glossary Terms

Drag related terms here

Index   Find Term

JUNOS PULSE

A VPN (virtual private network) app that allows the iPad to access protected resources securely from almost anywhere in the world when they have an active and open network connection.

Learn more at http://www.juniper.net/us/en/products-services/security/junos-pulse/.

Download the app from the App Store: https://itunes.apple.com/us/app/junos-pulse/id381348546?mt=8.

Related Glossary Terms

Drag related terms here

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Chapter 1 - Flexible Learning Environment

KALTURA MEDIASPACE

A video repository that allows students and faculty to upload and share video content and integrates with CoN's learning management system, Blackboard.

Learn more at http://corp.kaltura.com/Products/Video-Applications/Kaltura-Mediaspace-Video-Portal.

Download the app from the App Store: https://itunes.apple.com/us/app/kaltura-mediaspace/id698657294?mt=8.

Related Glossary Terms

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LEADERSHIP 2.0 SUMMER BRIDGE PROGRAM

The Leadership 2.0 Summer Bridge program was designed as a high school-to-college bridge for first generation, underrepresented ethnically and/or economically disadvantaged students. It provides students with an intensive academic and social orientation to the University of Cincinnati during the summer session. This bridge program is designed to help ease students' adjustment to college life and build a foundation for academic success.

The students were introduced to the living learning community where they live and learn together during the summer. The living learning community provides academic and social support throughout the year.

Learn more at http://nursing.uc.edu/academic_programs/bsn/leadership/leadership-bridge.html.

Related Glossary Terms

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Chapter 1 - Compelling Evidence of Success

MDM

Mobile Device Management

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AirWatch

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MSN

Master of Science in Nursing

Learn more about the UC CoN MSN program at http://nursing.uc.edu/academic_programs/msn.html.

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OBN

Ohio Board of Nursing

Learn more at http://www.nursing.ohio.gov/.

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OSA

The UC CoN Office of Student Affairs

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PRINTOPIA

Software that enables AirPrint for any wireless printer so that you printing is enabled from any iOS or OS device.

Learn more at http://www.ecamm.com/mac/printopia/.

Related Glossary Terms

AirGroup, **AirPrint**

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RESPONSEWARE

"ResponseWare turns mobile devices into a virtual clicker. Participants can respond to interactive questions with any web-enabled device including smartphones and tablets. ResponseWare allows participants to respond through apps or via the Internet through any web browser and immediately transfers selections to polling software. TurningPoint Cloud and TurningPoint 5 polling software collects responses, displays results in real-time and produces detailed reports. Engage and assess participants with familiar devices. Licensing options available for any presentation or campus environment." (Turning Technologies)

Learn more at http://www.turningtechnologies.com/response-solutions/responseware.

Download the app from the App Store: https://itunes.apple.com/us/app/responseware/id300028504?mt=8.

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RN

Registered Nurse

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SAMR

Ruben Puentedura's model for the integration of technology into education. The acronym stands for Substitution, Augmentation, Modification, Redefinition Model. It is model for the progression of the use of technology as competency increases.

Learn more at http://www.hippasus.com/rrpweblog/.

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SCAN - QR CODE AND BARCODE READER

Scan is an app that allows one to use the iPad camera to read QR Codes which link to information about the referenced object or content.

Learn more at https://scan.me/.

Download the app from the App Store: https://itunes.apple.com/us/app/scan-qr-code-barcode-reader/id411206394?mt=8

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SWANN

"Swann is the world's no.1 brand in DIY surveillance. As a world leader in DIY home security we're constantly bringing the latest and most advanced technology to market in our security cameras and DVR systems. We have a range of DIY home security systems to suit every budget, whether for home or business. Plus if you choose one of our DVR systems you can be secure in the knowledge that you can access your security cameras remotely via computer, tablet or smartphone to view footage, and are backed up by our lifetime 24/7 technical support guarantee" (Swann).

Learn more at http://www.swann.com/us/.

Download the app from the App Store: https://itunes.apple.com/us/app/swannview-pro-hd/id551963265?mt=8.

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SWIVL

A product that uses an iOS device to automatically track and record a speaker for lecture capture without need for a human camera operator.

Learn more at http://www.swivl.com/.

Download the app from the App Store: https://itunes.apple.com/us/app/swivl-capture/id805185573?mt=8.

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TELEHEALTH

Technology that allows for remote clinical health care.

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TPACK

Stands for Technological Pedagogical Content Knowledge. At the core, it is a framework for integrating content, pedagogy and technology in teaching. When realized, innovation can occur.

Learn more at http://tpack.org/.

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Chapter 1 - Ongoing Professional Learning

UC

University of Cincinnati

Learn more at http://www.uc.edu/.

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UCIT

University of Cincinnati Information Technologies; the central IT department for UC.

Learn more at http://www.uc.edu/ucit.html.

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VGO

A remote controlled device that is operated by a user at a distance that allows them to navigate a venue and have two way video and audio interactions with those who are present.

Learn more at http://www.vgocom.com/.

Download the app from the App Store: https://itunes.apple.com/us/app/vgo/id695686924?mt=8.

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VMWARE HORIZON VIEW CLIENT

This app allows the iPad to connect to a remote virtual computing environment.

Learn more at https://www.vmware.com/products/horizon-view/.

Download the app from the App Store: https://itunes.apple.com/us/app/vmware-horizon-client/id417993697?mt=8.

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