

A DIGITAL-FIRST SOCIAL LEARNING AND INNOVATION PLATFORM

Peter Merry
Griffin de Luce

Ubiquity University



Peter Merry is Chief Innovation Officer at [Ubiquity University](#), founder of the [Center for Human Emergence \(Netherlands\)](#), and a founding partner of [Engage!](#) He has worked in and across different sectors. As well as co-founding and leading the organizations above, his experience includes facilitating integral change processes in multinational corporations, government ministries, and in multistakeholder initiatives with global stakeholders. He has also spent many years in the not-for-profit sector including developing experiential learning processes for the Council of Europe's Youth Directorate. He is a recognized expert in the field of Evolutionary Systems Dynamics and Spiral Dynamics Integral in particular. He had his first book published in English and Dutch (Evolutionary Leadership). He is currently researching the application of noetic science and energetics to whole systems transitions. In this context, he is working on a Ph.D. with Ubiquity's Wisdom School. For more information, see www.petermerry.org, and CV on [LinkedIn](#).



Griffin de Luce. It is my passion and privilege to play with an abundance of startups, corporations, governments, and universities around the world. The activities I excel at most allow me to strategize, architect, ideate, design, art direct, curate, matchmake, mentor, and/or oversee to completion.

I've worked closely with, advised, or been empowered by two CEOs of Apple Computer, one chairman (and former CEO) of Microsoft, one chairman of the Securities and Exchange

Commission, one chairman and CEO of MasterCard International, as well as other high-ranking executives in New York City, Silicon Valley, and around the world.

My passion arises around the dual agenda of achieving a sustainable footprint for humanity and the education of our people necessary to do so. I hope to see this during my lifetime.

Griffin created the content of this article that relates to art direction, technical architecture, and virtual world elements.

Abstract

Ubiquity's design challenge is to create transformational, affordable learning at scale globally, rooted in the context of hypercomplex life conditions. To achieve transformational learning fit for context, the Ubiquity experience combines studies that engage current paradigms and explore new paradigms, self-mastery programs to support the student in their personal development, and hands-on “mission” change projects. A key part of the strategy is to develop experiential learning in immersive virtual reality.

KEY WORDS: e-learning, online education, higher education, disruptive innovation, virtual reality, digital-first, social innovation, integral theory

1. NEW OPERATING SYSTEM AND PARTNERSHIPS

Ubiquity is exploring how to build a learning system that prepares young people to navigate a world of increasing hypercomplexity.^a In the following we describe the core components of this new “operating system for education.”

1.1. Integral Learning

Conventional schools impart information and train students principally in analytical, mathematical, and empirical thinking. Ubiquity embraces a comprehensively integral learning system because we believe that only an integral framework for learning will provide students with the new competencies they need for the future of increasing hypercomplexity (Schwartz, 2013). This new approach addresses all the different intelligences, emphasizing interior growth as much as professional skill, activating the emotional as well as analytical, social as well as mathematical ways students know and operate in the world.

1.2. Collaborative Design

Conventional education relies on lectures and memorization in a very competitive environment. Ubiquity's learning system involves a specially designed learning platform through which the students collaborate in “pods” as they engage in academic studies, self-mastery exercises, and real-life missions together. Everything is designed to promote

creative collaboration. Ubiquity also provides Learning Journeys so students can travel together to places of interest and relevance all over the world.^b

1.3. Digital/Modular/Mobile

Conventional schools train for degrees. Ubiquity takes a modular approach, enabling students to obtain everything from BAs, MBAs, and PhD degrees to certificates and badges for their professional portfolios—anything they need for their specific needs and time frames, all from their digital devices. Ubiquity accepts transfers from massive open online courses (MOOCs) and nontraditional education sources so that students can custom design their own learning pathways.

1.4. Globally Affordable

Student costs and tuition for higher education are dramatically escalating worldwide, taking education out of the reach of millions of perfectly qualified students each year (Ray and Anderson, 2001; Rampell, 2012; Stiglitz, 2013; Shader, 2011; Dua, 2013). Ubiquity University is striving to be globally affordable, offering a full BA and MBA for \$12,000 and a range of affordable certificates and courses. We believe a student should be able to pay for college with a part-time job.

1.5. Technology Platform

Ubiquity is a platform company as well as a university. We offer to other educational institutions the opportunity to use our platform and learning system for their own purposes and their own students, and also to share courses and faculty. This is a critical piece of the puzzle, since educational institutions worldwide understand the need to go digital but many do not have the wherewithal to do so. We already have some platform partners in place.

1.6. Global Partnership Network

Ubiquity degrees, certificates, and courses are already finding a global market. We have an expanding network of companies and institutions from Silicon Valley to Europe and Asia that want both to distribute our educational products and to use our platform.^c

Figure 1 below represents one view of Ubiquity. The combination of learning, social innovation, and a global community of changemakers gives us the opportunity to help resource people in multiple ways to bring their passion creatively into the world.



FIG. 1: Ubiquity's platform design

2. UBIQUITY'S INTEGRAL LEARNING SYSTEM AND PRODUCTS

Ubiquity provides an improved learning platform designed to support students engaging hypercomplexity. Hypercomplexity is the central reality around the world and the key challenge to education. The world our young people are confronted with is without precedent in the long history of human civilization. Figure 2 below indicates the scope of our situation (adapted from *New Scientist*).

Context is key

Source: New Scientist

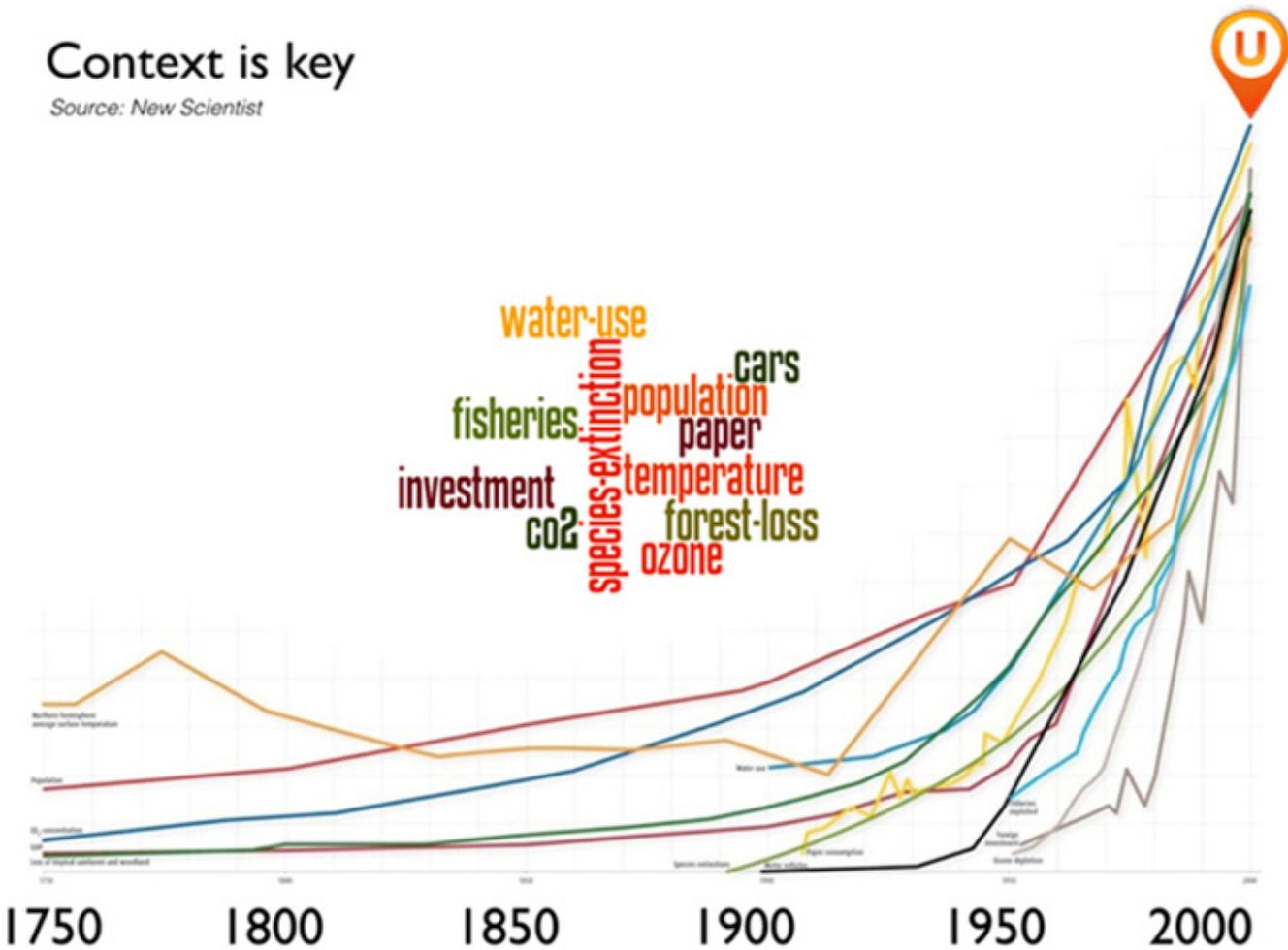


FIG. 2: Increasing complexity is the global context for education

Virtually every challenge confronting the human community is escalating in severity and virtually all of them are doing so *simultaneously and interactively*. In fact, many crises are metastasizing and generating negative feedback loops that are as unexpected as they are unprecedented. Small events anywhere are having major effects everywhere around the globe, across sectors, and at any time, especially the escalating effects of climate change and a range of other global issues, all of which are becoming more acute and demanding global cooperation to address. All indications are that hypercomplexity will only increase as the future unfolds, mandating a whole new kind of education for this whole new kind of world (AACU, 2013).

The challenge of hypercomplexity is widely recognized. IBM studies in 2010 and 2012 (IBM, 2010 & 2012; IBM Worldwide, 2010) interviewed a total of 1,700 CEOs and 3,600 students in 60 countries worldwide on how education is dealing with this phenomenon. The consensus of CEOs and students alike emerging from these reports is that no institution of higher education is preparing students and workers for a world of hypercomplexity—most

are simply educating just like they did 50 or 100 years ago. Yet the critical need now is not for industrial workers but for creative leaders and entrepreneurs able to think outside the very system that produced them because they are facing a future without precedent (Garrison, 2013).

Topping the list of what global CEOs and students are looking for as they face the future are creative thinking, the capacity to collaborate, the capacity to communicate effectively, the capacity to be open, flexible, and empathetic, and the ability to express global perspectives. Simple technical and mathematical knowledge—that which our schools are currently designed to teach—ranked low on the list.

Hypercomplexity requires an “integral” approach to learning. Ubiquity University has been significantly influenced by these IBM studies, both because of what they assert in terms of the real challenge to any educational design, and also because they indicate that the concern about hypercomplexity is a global concern, not simply something in the United States or Europe. For the last three years, we have been focusing on what education needs to address in order to empower students to successfully navigate hypercomplexity. To develop the competencies that prepare a student to deal successfully with hypercomplexity, we believe that an educational system must be “integral”—it must activate all the different kinds of intelligences a student has—emotional, social, artistic, and spiritual, *in addition* to the analytical, mathematical, and empirical emphasis of conventional schools. Equally fundamentally, an integral learning system activating all the intelligences is most enhanced when the learning environment is collaborative, not simply competitive. Guiding our exploration and development of our integral framework is Ken Wilber, who serves as our Chancellor. We are working closely with his Integral Institute in our curriculum and assessment design.

We have also been greatly informed by the pioneering work of Howard Gardner, professor of education at Harvard University, whose groundbreaking theory of multiple intelligences showed that Harvard education is woefully inadequate in educating more than only a few intelligences. By activating student interiors—their emotional, social, and artistic intelligences—they will develop new ways to learn and they will develop new competencies, essentially those indicated by the CEOs and students in the IBM studies.

In dealing with hypercomplexity, collaborative creativity is as important as technical knowledge, emotional intelligence is at a premium along with analytical thinking, and a spirit of entrepreneurship is as critical as rote memorization of data (Bruni, 2013). The students of the future need all their intelligences activated to thrive in a hypercomplex world. This is what will produce high performance and social impact. Integral learning animates the multisensory student. It combines the best of online education, blends it with the latest social networking technology, infuses it with direct encounters at a global level solving real-life challenges, and designs the entire continuum to activate the student's multiple intelligences

and thus catalyze innovation and leadership for students wanting to change their world (Kuszewski, 2013; Lee and Hammer, 2011).

This is integral because it offers a range of new learning modules designed to combine knowledge with creativity, competence with entrepreneurship, and the ability to navigate the external world with mastery of the student's interior realms. It catalyzes innovation because it invites students to express their creativity as they learn and thus develop real-life skills. It empowers leadership because it cultivates capacities for mastery, collaboration, and coherence among students as they interact with each other globally on issues of common concern.

We believe that a fusion of education and social innovation in a modular and competency-based environment, all within an integral framework in which interior development is emphasized as much as professional competencies, represents the future of education. When, in addition, you offer low-cost tuition that makes the degree affordable to students everywhere and a global network of collaborating strategic partners actively working together to recruit and support the students, you get Ubiquity University.

2.1. Explore, Equip, and Engage

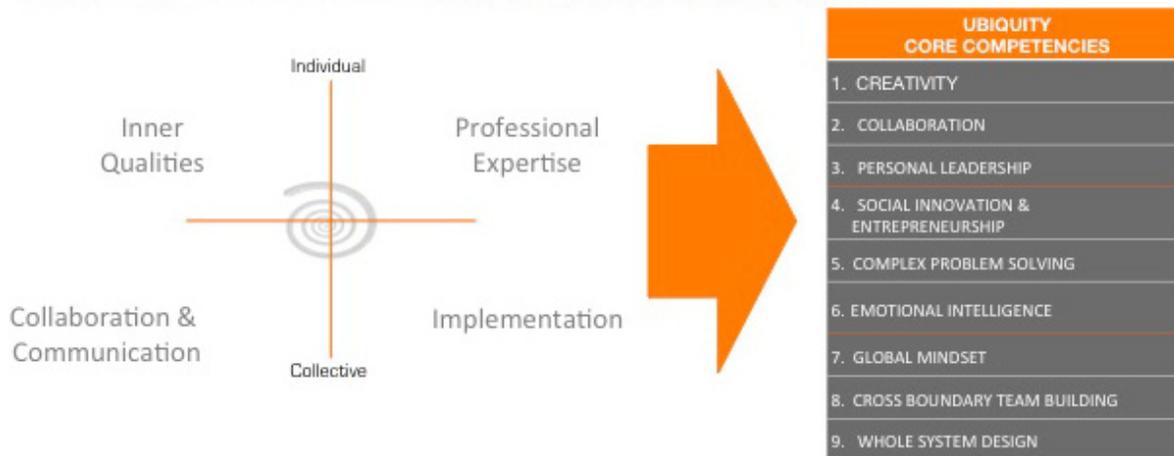
At the heart of our integral and multidimensional approach to education is what we call “Explore, Equip, and Engage.” This means that what is 100% of a conventional university—lectures, quizzes, tests, and term papers—is only one-third of a course at Ubiquity.

Figures 3 and 4 indicate, the core competencies that students learn to develop at Ubiquity are divided into three areas: Knowledge Content (the things students are going to study), Personal Qualities (the dimensions in the students they are going to work on), and Action in the World (how students engage the world). All of their study and program-related activity at Ubiquity will contribute to the development of these core competencies.

Ubiquity's Integral Learning System



Ubiquity teaches students to navigate **HYPERCOMPLEXITY** with a digital **INTEGRAL LEARNING SYSTEM** that develops all the different intelligences and enhances capacities for collaborative creativity. This animation of the whole person activates student's **HIGHEST POTENTIAL** -- Students learn to **PLAY THE GAME** to **CHANGE THE GAME**.



© Copyright 2016 Ubiquity University

FIG. 3: Ubiquity's learning design

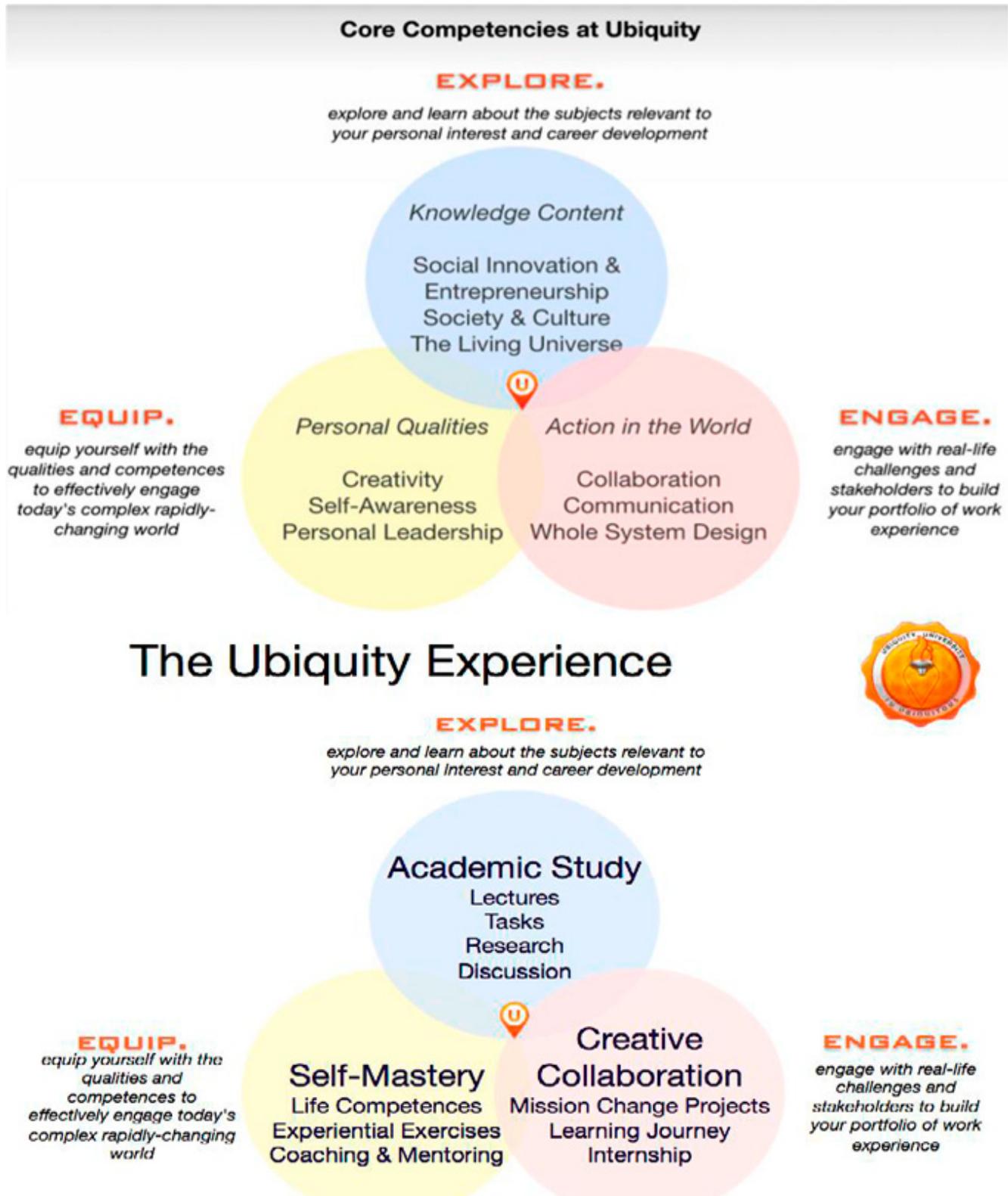


FIG. 4: Ubiquity's tripartite approach

2.2. Explore, Equip, and Engage: Learning Methodology

A Ubiquity course is composed of 40–45 hours of engagement with qualified faculty and 80–90 hours of self-directed study and other activities. The 40–45 course hours are divided among the following activities:

- *Presentations*.—These are lectures, documentaries, or interactive media delivered by the core faculty member or a qualified guest faculty member. They are divided into 15 modules which each contain 50 minutes of presentation split into smaller segments and integration tasks.
- *Self-Mastery*.—These are experiences that help students to develop different parts of themselves so that they can be more effective in their study and work in the world. They include mindfulness training, collaboration practice, rhythm and music, design challenges, body-based exercises, and nature awareness.
- *Facilitated Group Discussion*.—These are opportunities in which students can engage fellow students in exploration, dialogue, and reflection. They may take the form of conference calls, video conferences, chat room and forum engagement, or online wiki collaboration, for example. Faculty participate in these discussions. They help students to learn from their peers and develop interpersonal skills.
- *Peer Review*.—These are sessions in which students review three of their peers' creative assignments.
- *Integral Assessment*.—There are moments during the course where students will be asked to step back from the material they are learning and reflect on how it fits together into a larger framework, teaching them to take a professional viewpoint. Students will be equipped to do this in the Integral Theory and Practice course, a required “core” course which all entering students must take.

2.3. The 80–90 Self-managed Hours of Engagement

- *Creative Assignments*.—These are tasks students are given to show that they have taken in the content of the course and can add their own creative expression to their conclusions. There may be one big assignment at the end of the course, or smaller ones spread throughout the course. They may be given different media options. For example, written papers, video/audio presentations, music, and art will be encouraged. Fellow students will review assignments.
- *Missions*.— These are real-life challenges that students will work individually and with fellow Ubiquity students. They are designed to increase in complexity as students develop through their degree program. They will test how much students have been able

to remember and embody what they have learned so far, as well as making a positive impact on the world in which they live. They include a week-long nature-based Learning Journey and a possible final semester special assignment (e.g., internship, creative project, social enterprise development). On top of the Learning Journeys mentioned above as potential mission projects, currently enrolled students are planning to start up a sustainable café, a magazine, and a project in a refugee camp.

- *Self-Mastery.*— This is where students practice the things they have learned in guided personal development sessions during core course time.
- *Research and Study.*—This is where students get to read, watch, or listen to the extra course material provided by faculty, students, or that they find themselves.

2.4. Unique Learning Platform

Ubiquity is entering a market segment dominated by institutions rich in resources and societal influence and often aligned closely with the twin entrenched interests of government and industry. As noted earlier, existing models of education are used to train students to become productive members of society with highly specialized skill sets, much in the manner that guilds in the past have overseen the training of craftsmen skilled in a particular trade. Instructors impart skills to apprentices, testing their ability to commit material to memory and finally certifying them before releasing them to take their place in government or industry.

For many decades, the term distance learning described the facilitation of this type of instruction via whatever underlying technology had most recently become economically feasible to instructional institutions. The emphasis has typically been focused on delivering lectures to students who for one reason or another were unable to participate in these same activities alongside their peers.

However, unlike telephone ISDN lines and other communication methods such as closed circuit television, today's Internet enables far more than the transfer of information like lectures. The Internet of today has fostered entire new ways of interacting, not only with content but with our fellow humans, resulting in a world more social and better informed than ever before.

2.5. The Social Classroom

Delivering education digitally is a natural outcome of the rise of the Internet. Ubiquity is doing so in ways that seek not simply to create a digital extension of a physical classroom but in a manner that engages a diversity of ways of learning and relating. It is important to bear in mind when considering the education of the future that the current generation of young people is the first in history to consider digital technology the norm. For them the Internet

and smart phones are simply the way it is. Thus many of today's students may be ill-suited for traditional methods of study but may bloom when exposed to the same course material in a manner better suited to their primary modalities of learning.

Collaboration and sharing are behaviors encouraged by the wave of social networking applications like Facebook, LinkedIn, Google+, and dozens of other social and mobile applications. More and more of the time and attention of the modern connected human of the 21st century is spent relating with information and with others through the digital medium of the social network.

Portable smartphones are changing the way in which we relate to facts and information. The result is that we are no longer only able to learn in the presence of a lecturer or while in front of a book. We are awash in new skills and information being related to us throughout the course of our day. Where once we went to a specific place to learn, now we can truly learn anywhere and, increasingly, everywhere. This shift has led to a new manner of instruction commonly referred to as “the flipped classroom.”

2.6. Unleashing Creativity and Participation

The intersection of these emerging trends of new distance learning technologies, a Facebook-empowered global society and a new flipped classroom model of collaborative learning, allows students to participate in a revolution of education the likes of which the world has never known. While the rest of society grapples with the implications of truly global access to lifelong learning, Ubiquity is positioning itself to curate a best-in-class social learning environment that serves all stakeholders by providing them with the most relevant skills at the most reasonable cost possible, while also providing a next-generation social ecosystem within which to engage. Our primary means of accomplishing this is by building our product delivery platform upon the most recent innovative technologies available and making them available at the lowest possible cost. The key enabler for this realization of value is open source software.

2.7. Major Product Offerings

Here is a summary of the major product lines that we are developing at Ubiquity:

- An online social learning platform available to values-aligned partners to host their learning content and communities
- University-level academic programs (digital-first: BA, MBA, EMBA, MSc; in-person first: MA, DMin, PhD) with digital-first as competency-based, modular, and personalized learning, globally available and affordable, focused on mindset, skill set, and toolset for a rapidly changing, complex world

- Lifelong learning programs, with competency-based, modular, and personalized learning, globally available and affordable, focused on mindset, skill set, and toolset for a rapidly changing, complex world
- Executive and organizational learning programs, blended online and in-person, with competency-based, modular, and personalized learning, globally available and affordable, focused on mindset, skill set, and toolset for a rapidly changing, complex world
- Course design and production, including an integral competency-based approach, with gamification and interactive online social learning

3. THE OPPORTUNITY OF EXPERIENTIAL LEARNING IN IMMERSIVE VIRTUAL REALITY

For learning to be truly transformational, there is considerable evidence to demonstrate that it needs to include an experiential dimension (Gosen and Washbush, 2004; Kolb, 1984; Kolb et al., 2001; Yamazaki and Kayes, 2004). Prior to the formation of Ubiquity University, many of the team were involved with Wisdom University, which is now the Wisdom School within Ubiquity University. Wisdom University ran primarily in-person courses and developed a highly successful pedagogy combining academic study, personal development, and creative expression which all included a significant embodied learning experience. Student evaluation was consistently high in these programs.

Moving into the development of online learning clearly presents a challenge to this embodied experiential approach. Our first-generation platform has done much with existing social networking technology to create as interactive an experience as possible. However this two-dimensional web-as-page experience cannot come close to replicating the transformational power of an in-person experience. With the advent of accessible immersive virtual reality, however, that possibility draws significantly closer.

Much research has been carried out that demonstrates the transferability of skills and qualities developed in a virtual reality environment to a person's real life (Bailenson and Blascovitch, 2011). There is also plenty of evidence to show that the brain cannot distinguish between a simulated experience and a spontaneous experience (Northoff, 2014). The opportunity then is to take experiential learning design into immersive virtual worlds.

Up until now, most of the virtual campuses in, for example, Second Life have focused on giving students living at a distance a more interactive social experience and the delivery of lectures in a virtual lecture theatre. [The more progressive programs have used the system's ability to give everyone a sense that the lecturer is making eye contact with them and that they are seated in the primary location in the room for learning, both of which have been demonstrated to enhance the learner's ability to learn (Bailenson and Blascovitch, 2011).]

However, this is still using a form of teaching that prioritizes the cognitive intelligence and focuses primarily on developing the student's ability to recall and understand information, rather than actually apply it.

In order to develop higher-level competencies, beyond basic recall and understanding (see Ubiquity's levels of competence below), a more embodied experiential approach is necessary. This can be achieved, of course, by engaging in real-life projects, yet not everyone always feels confident (and it is not always safe!) to immediately jump in at the deep end and try something out in real life. Immersive virtual reality (VR) gives us the opportunity to create more embodied rehearsals for reality that enable us to test out various strategies and approaches, learning from our successes and failures, before taking those lessons learned into the real world. Training in immersive VR enhances the possibility that what we have learned goes beyond a purely cognitive intelligence and includes emotional, interpersonal, intrapersonal, spatial, and other intelligences, the development of which will stand us in far better stead as we seek to apply our learning (as well as giving learners a diversity of intelligences they can use to engage with the material) (Gardner, 1983).

Although being able to provide these experiences within the Ubiquity design parameters—transformational, affordable, global—may be a couple of years away, there are significant signs that the technological conditions to make it possible are improving exponentially and will be with us sooner than most people expect. The addition of this dimension to Ubiquity's learning offer will not only help to set Ubiquity apart in the digital-first learning space, it will enable us to fulfill our mission of a whole new kind of education for a whole new kind of world with far greater impact.

4. UBIQUITY'S OPEN SOURCE SOFTWARE DESIGN AND TECHNOLOGY PLATFORM

Primary among Ubiquity's technical differentiators is its commitment to open source software. Benefits include increased flexibility, decreased cost, and decreased time to market.

Figure 5 details the key elements of Ubiquity's open source platform architecture. While this does not include all software elements within the Ubiquity software ecosystem, it does include the elements which most differentiate Ubiquity from other comparables in the marketplace.

Ubiquity Competence Learning Journey and Guild Levels				
	Guild Level (and Learning Journey)	Description	Bloom Equivalence	Form of Assessment
Competence Acquisition	1 Initiate (A journey of Experiencing)	As an Initiate , you have successfully completed a journey of <i>experiencing</i> the core subject matter of the course. You have taken in all the impressions and information in such a way that you can vividly recall it, distinguish within that what seems most interesting and important to you and explain it clearly to others.	Remembering & Understanding	Quizzes
	2 Apprentice (A journey of Practising)	As an Apprentice , you have successfully completed a journey of <i>practising</i> applying your new learnings and understandings to specific situations, in such a way that you develop and refine your "hands-on" competence in using the core skills taught in the course.	Applying & Analyzing	Creative Assignments / Rubric Grading
Competence Application	3 Visionary (A journey of Envisioning)	As a Visionary , you have successfully completed a journey of <i>envisioning</i> how what you are learning is relevant both to your life and to the world and developing that discovery into inspiring ideas and projects you can put into action in the real world.	Evaluating & Creating	Mission Discovery and Definition
	4 Changemaker (A journey of Engaging)	As a Changemaker , you have successfully completed a journey of learning to manifest your vision and missions in the world in such a way that they create tangible, sustainable value while you remain continually aware of the impact you are making and adjusting your actions appropriately as you go.	n/a	Mission Implementation and Adaptation

FIG. 5: Ubiquity's competence framework

4.1. Key Differentiators in Ubiquity's Open Source Software Platform

4.1.1. Social Authentication

Ubiquity, much like many of its students, was born digital. Founded at the dawn of the social media revolution, Ubiquity's entire pedagogy revolves around facilitating a deeper, richer, and more interactive model of education. Much of that interaction takes place between students through sophisticated on-site social functions, much like those of Facebook and other social media platforms.

At the heart of many these interactions is the student social profile. A Ubiquity student makes use of their social profile to track and surface their learning journey, collaborating with their peers and interacting with their instructors. Rather than reinvent this particular wheel, or erect unnecessary barriers between the student and the day-to-day social online existence which they may already curate on sites like Facebook, Ubiquity integrates seamlessly with other social media touch points in a student's life, like their Facebook wall or their LinkedIn profile. Social Authentication, which allows a student to log into Ubiquity and upload basic profile info using these preexisting third-party services is only the beginning of this

integration. Students may choose to share their Ubiquity activities through such social media outlets and even indirectly assist in online recruiting for Ubiquity by indicating which classes may be of interest to other members of their social network. Functions like this (often called discovery) are the hallmark of a successful social media application and represent a significant advantage that Ubiquity has over other competitors.

4.1.2. Open Source Presentation Layer & Content Management

Much like Social Authentication, other Ubiquity functions also interact seamlessly with the preexisting social media profiles that students maintain on sites like Facebook. Ubiquity students are encouraged to write individually and collaboratively as part of their studies at Ubiquity. These blog and team blog posts can be cross-posted to Facebook, LinkedIn, and Google+.

4.1.3. Open Simulator

Ubiquity is designed to enable a level of social interaction which builds upon and transcends that which is currently available through platforms like Facebook. Ubiquity has been in the research and development phase of constructing virtual online campus (see Figs. 6 and 7) environments which allow faculty and staff to explore and engage with courseware and one another in a manner which transcends distance but which also unlocks learning for individuals with nontraditional learning modalities.



FIGS. 6 and 7: Ubiquity's virtual campus

Open Simulator is an open source environment derived from the original Linden Lab Second Life functionality that has since been extended by the US Military and other organizations around the globe. When combined with immersive VR headwear, it unlocks entire new horizons for online virtual instruction and immersive experiential learning.

4.1.4. Open Source Learning Management Systems and Badging

Ubiquity has embraced the open source Moodle Learning Management System (LMS) and is integrating the LMS into its online community functions. Custom-designed assessment methodologies, built upon a next-generation understanding of skills and competency-based learning, have allowed Ubiquity to extend the reporting and user management functions, which have been considered the weaker functions of Moodle.

One key aspect of Ubiquity's approach is experiential learning missions. This function blends elegantly with the Mozilla Foundation's OpenBadge functionality and further enlivens and enriches the social experience of the Ubiquity platform.

4.1.5. Open Source Video Platform

Ubiquity has selected a best-in-class video platform, Kaltura, which allows Ubiquity to publish, manage, monetize, and analyze video and other rich-media assets while maintaining crucial intellectual property rights. The main components of Kaltura's online video platform are based on open source software. The availability of the open source Kaltura Community Edition allows Ubiquity to potentially choose between high-availability hosted content, which can be easily monetized, and self-hosted content, which can be made available at a lower price or at no cost to students. Ubiquity is also able to control its own destiny by making modifications to the underlying open source code of the Community Edition. Ubiquity also makes extensive use of free solutions such as YouTube for content for which control of rights is less crucial.

4.1.6. Open Source Enterprise Resource Planning

Ubiquity is among dozens of world-class higher education institutions to benefit from the Quali Foundation's open source Enterprise Resource Planning software. A primary benefit to Ubiquity is the ability to choose from a number of commercial affiliates who are available to provide implementation, support, and hosting.

Reduced cost of administrative systems also provides a lower cost path to the implementation of additional major software systems for financial management, research/grants administration, student services, human resources/payroll, library management, business continuity, middleware/workflow, and enterprise mobility. Owning these functions and their supporting software outright, as opposed to licensing them at uncertain cost from established vendors, gives Ubiquity a definite advantage in the marketplace as downward pressure on pricing continues to increase.

4.1.7. OpenStack Hosting

OpenStack is an open source cloud computing platform for public and private cloud-based applications. It is free under the terms of the Apache License. The project is managed by the OpenStack Foundation, which is a nonprofit corporate entity. More than 200 companies have joined the project, including AT&T, AMD, Brocade Communications Systems, Cisco, Dell, EMC, Ericsson, Hewlett Packard, IBM, Intel, NEC, NetApp, Oracle, Rackspace, VMware, and Yahoo.

Ubiquity benefits from the advantages of best-in-class hosting infrastructure (Amazon Web Services compatible) while maintaining the ability to migrate to a different hosting provider. The technology consists of a series of interrelated projects that control pools of processing, storage, and networking resources throughout a datacenter, able to be managed or provisioned through a web-based dashboard or command-line tools.

4.2. Ubiquity's Technology Platform

Ubiquity is both a university and a technology platform that integrates an advanced learning environment with a next-generation social platform. The Ubiquity platform puts students and instructors in touch with all kinds of data allowing learning to happen more easily and personally. The Ubiquity platform builds strong relationships in virtual classes with familiar social sharing functionality and makes it easy for students to monitor and manage their learning adventures and see what comes next intuitively and easily.

The Ubiquity platform will unfold in three stages (see Fig. 8):

Firstly, in 2015, the platform will launch as a community and content platform with an emphasis on content delivery and a social collaboration infrastructure. This stage underscores that social learning is personal learning and leverages existing social networks for its students.

Secondly, in 2015–16, the platform will become a hosting platform for learning and global collaboration communities. Ubiquity then becomes an online home for other learning communities, including education environments and corporate collaboration capacities.

Thirdly, in 2016–17, the Ubiquity platform will unveil its global virtual reality corporate and college campuses. These are fully immersive virtual reality learning and innovation environments that are now in the testing phase. These VR environments translate global offices and communities into realistic online worlds where corporations manage their businesses and students from around the world learn and work together side-by-side in real time. Ubiquity will bring experiential learning to the world via immersive virtual reality.



FIG. 8: Ubiquity's development pathway

^a “The contemporary world characterized by mobile, global flows, and fluids of culture producing new levels of interconnectivity and interaction. The term is commonly attributed to cultural theorist John Urry.” (Khosrow-Pour, 2012).

^b For examples of Learning Journey locations, see <http://wisdomuniversity.org/UU/index.htm>.

^c For the latest list of partners, see <http://ubiquity.university/index.php/2016-07-10-18-12-00/ubiquity-partners>.

^d A “guild” was originally a medieval association of craftsmen and has been resurrected, in particular, in the gaming industry to illustrate levels of maturity that players move through.

REFERENCES

AACU (2013). Presidents' Trust Employer-Educator Compact. Retrieved from <http://www.aacu.org/leap/presidentstrust/compact/index.cfm>.

Bailenson and Blascovitch (2011). *Infinite Reality*, New York: Harper Collins.

Bruni, F. (2013). Questioning the Mission of College, *New York Times*. Retrieved April 20, 2013, from <http://www.nytimes.com/2013/04/21/opinion/sunday/bruni-questioning-the-missionof-college.html>.

Dua, A. (2013). College for All. Retrieved May 2013, from http://www.mckinsey.com/insights/social_sector/college_for_all.

Gardner, H. (1983). *Frames of Mind: The Theory of Multiple Intelligences*, New York: Basic Books.

Garrison, J. (2013). *The Opportunity in the Crisis of American Education* (unpublished).

Gosen, J. and J. Washbush (2004). A Review of Scholarship on Assessing Experiential Learning Effectiveness, *Simulation Gaming*. **35**(2): 270–293.

IBM (2010). Global CEO Study. Retrieved from <https://www-03.ibm.com/press/us/en/pressrelease/31760.wss>.

IBM (2012). Global CEO Study. Retrieved from http://www-935.ibm.com/services/multimedia/anz_ceo_study_2012.pdf.

IBM Worldwide Student Survey (2010). Retrieved from <https://www-03.ibm.com/press/us/en/pressrelease/31937.wss>.

Khosrow-Pour, M. (2012). *Dictionary of Information Science and Technology*, 2nd ed., Calgary, AB, Canada: Idea Group, Inc.

Kolb, D. (1984). *Experiential Learning as the Science of Learning and Development*, Englewood Cliffs, NJ: Prentice Hall.

Kolb, D. A., R. E. Boyatzis, and C. Mainemelis (2001). *Experiential Learning Theory: Previous Research and New Directions, Perspectives on Thinking, Learning, and Cognitive Styles*. **1**: 227–247.

- Kuszewski, A. (2013). Gamification Revolution. Retrieved February 2013 from <http://www.gamification.co/2013/02/12/gabes-gamification-revolution-featuring-andrea-kuszewski/>.
- Lee, J. L. and J. Hammer (2011). Gamification in Education: What, How, Why Bother? *Academic Exchange Quarterly*. **15**(2). Retrieved from <http://www.gamifyeducation.org/files/Lee-Hammer-AEQ-2011.pdf>.
- Northoff, G. (2014). *Minding the Brain*, London: Palgrave MacMillan.
- Rampell, C. (2012). Why Tuition Has Skyrocketed at State Schools, *New York Times*. Retrieved March 2, 2012, from <http://economix.blogs.nytimes.com/2012/03/02/why-tuition-has-skyrocketed-at-state-schools>.
- Ray, P. H. and S. R. Anderson (2000). *The Cultural Creatives: How 50 Million People Are Changing the World*, New York: Three Rivers Press.
- Schwartz, K. (2013). How Do You Teach Empathy? Harvard Pilots Game Simulation. Retrieved May 9, 2013, from <http://blogs.kqed.org/mindshift/2013/05/how-do-you-teach-empathy-harvard-pilots-game-simulation/>.
- Shader, M. (2011). U.S. Student Loan Debt Set to Hit \$1 Trillion; Already Outpaces National Credit Card Debt, *Consumer News*. Retrieved June 9, 2011, from <http://news.consumerreports.org/money/2011/06/us-student-loan-debt-set-to-hit-1-trillion-already-outpaced-national-credit-card-debt.html>.
- Stiglitz, J. E. (2013). Student Debt and the Crushing of the American Dream, *New York Times*. Retrieved May 12, 2013, from <http://opinionator.blogs.nytimes.com/2013/05/12/student-debt-and-the-crushing-of-the-american-dream>.
- Yamazaki, Y. and Kayes, D. C. (2004). An Experiential Approach to Cross-Cultural Learning: A Review and Integration of Competencies for Successful Expatriate Adaptation, *Acad. Manage. Learning Educ.* **3**(4): 362–379.