Community Building Through Participatory Curricula Transformation

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Abstract

With the changing student demographics and graduates' needs, new ways of teaching must be mastered and infused into practice. Higher education campuses must intentionally design curriculum for diverse students while simultaneously building sustainable learning communities. This can be accomplished by utilizing active participation and engaged decision-making techniques to select, develop and integrate new content and delivery. Active participation techniques can be dovetailed with engagement efforts to target students and faculty efforts toward the priority needs of the surrounding community. It can also be used to harvest the wisdom of community members, and identify collaborations while building trust and buy-in. To actualize this, thoughtful, intentional processes should be used.

This paper provides an overview of changing student demographics, new ways of teaching for future graduates' expanded needs and methods of engaged decision-making for sustainable community building. A case study example is provided of Marygrove College in Detroit that illustrates how processes to transform curricula can utilize participatory and engaged decision-making practices to also simultaneously build community. Aligned with the College's urban social justice mission, Marygrove completed an intensive institutional initiative to infuse Urban Leadership (UL) into all curricula, co-curricula and campus life, across all institutional and program levels, utilizing a process inclusive of both campus and community stakeholders. In addition, new programming, such as pre-engineering, was seeded under the UL umbrella. UL is now incorporated into all majors, general education and experiential learning, including community engagement activities as well as new programs, making Marygrove College unique in its institutionalization of UL (Tice, 2015) and an exemplar of curricula and community transformation processes.

Acknowledgment

This work was made possible through generous support from the W. K. Kellogg Foundation.

Introduction and Background

The world is changing at an ever increasing rate and in many different ways. These dynamics affect priorities in higher education. Students must be prepared for success in the world of the future. This is a world with an increasing rate of technological change, increasing population, changing demographics, increasing demands for energy, ongoing climate changes, and known equity and access challenges in education. To ensure sustainability of all neighborhoods in the world, educators must prepare students with the knowledge and skills to navigate within tomorrow's society and make positive contributions to their communities.

Increasing Rate of Technological Change

Wrights Law states that there is an increasing rate of technological progress (McCormick, 2012). Scientists have validated the accuracy of this law, noting that technology has changed dramatically over the past half century and will change even more in the next half century. Technology is changing at a rate never before seen and this rate of change will only accelerate. Students today are competent and comfortable with technology that didn't exist when their professors were students. These students must also be prepared to function and thrive in a future adept with technology that does not yet exist. With new technology will be new jobs, challenges and opportunities. Higher education must evolve to meet students' changing technological needs.

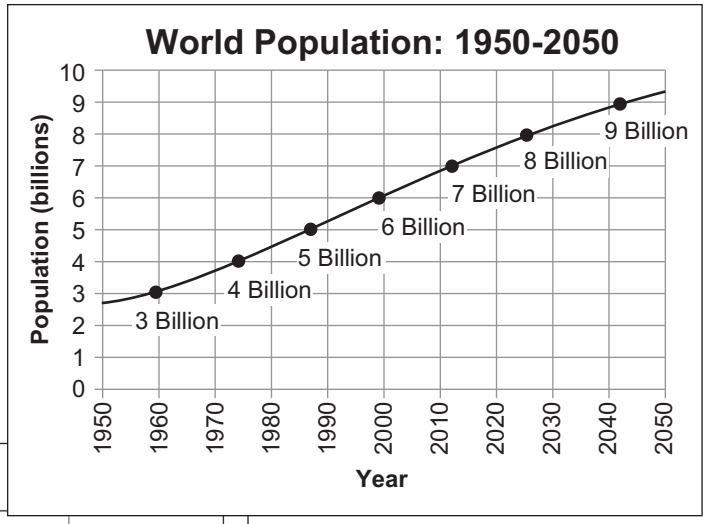
Falling Fertility but Increasing World Population

World population scientists are reporting an interesting pattern. People are having fewer children. Thus, the rate of fertility has fallen compared with the fertility rates of the past mid-century. Although the rate of fertility has decreased, there are still many people of child bearing age causing the overall world population to be increasing (U.S. Census Bureau, 2015). As depicted in Chart 1, scientists estimate that the world population will increase from 6.8 billion to 9.2 billion in 2050.

[1] Marygrove College

Chart 1

Chart reproduced from U.S. Census Bureau, July 2015, retrieved from: http://www.census.gov/population/international/data/worldpop/graph_population.php. Reprinted with permission.)



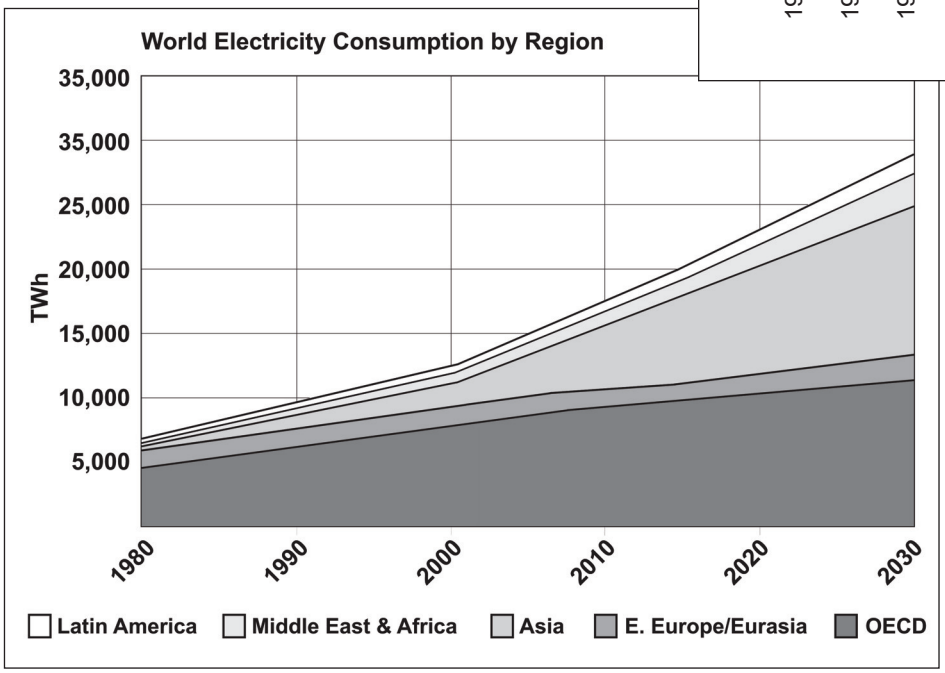
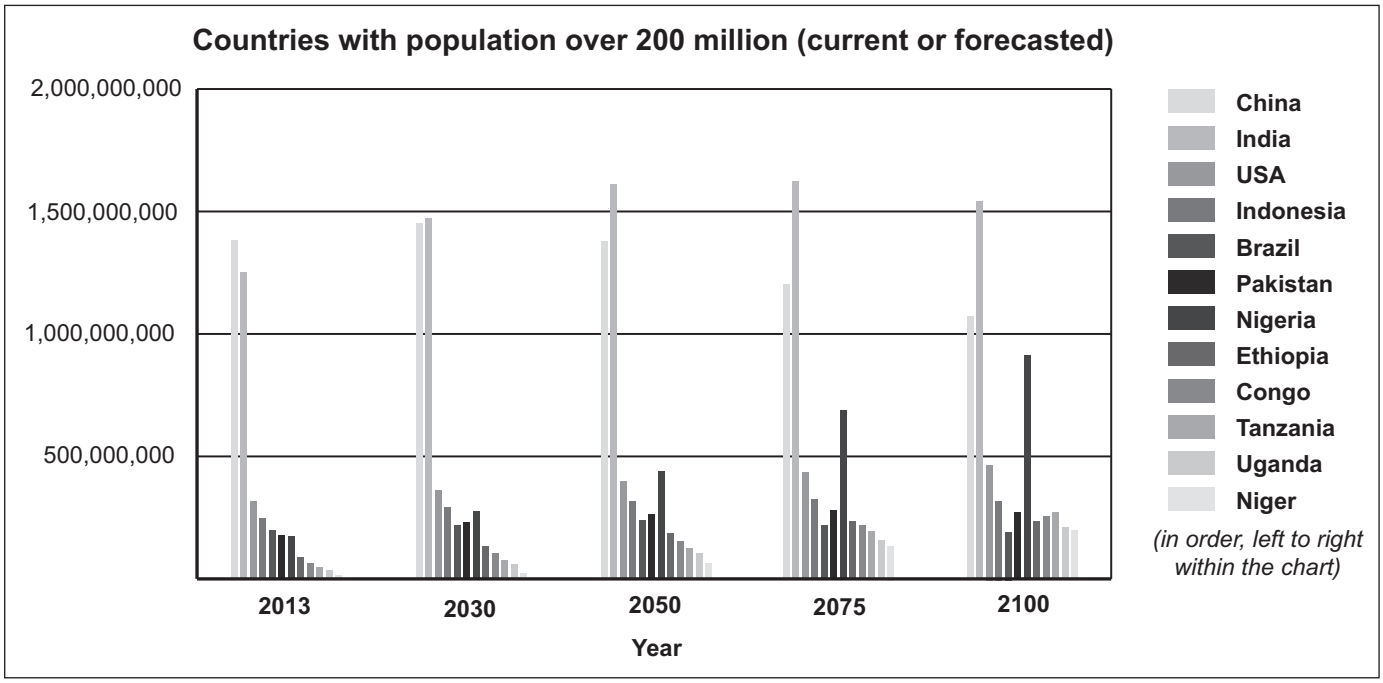


Chart 2

(Chart reproduced from "Uranium, Electricity and Climate Change", World Nuclear Association, Updated 2012, Copyright 2016 World Nuclear Association. Retrieved from: http://www.world-nuclear.org/info/Energy-and-Environment/Uranium,-Electricity-and-Climate-Change/ Reprinted with permission.)

Chart 3



(Chart reproduced from "Top 20 Countries: 2013-2100', Worldometers.info, August, 18, 2015, Retrieved from: http://www.worldometers.info/world-population/ Reprinted with permission.)

The increasing world population overtaxes the limited world resources and creates challenges for students as they enter society and the job market. Students will need to be prepared to not only navigate in such a society but to actively find solutions to the major problems that their generations and future generations will encounter due to high world population. Higher Education must prepare students with the knowledge and skills to meet these challenges.

Energy and Climate Change

With increasing world population, energy consumption also increases, especially within developing countries, as illustrated in Chart 2. Energy for the past century was largely supplied through the usage of oil, coal and gas, but this dependence is beginning to diversify. Sources of energy will continue to be a challenge that today's students will need to address. "Overall, world energy demand is expected to increase by more than 50% from 2005 to 2030" (World Nuclear Association, 2012). With continued high energy consumption, the effects of its use such as increasing carbon dioxide, green house effects, and subsequent climate change, will continue to be major challenges that students of today will face. Higher education must prepare students to meet these challenges.

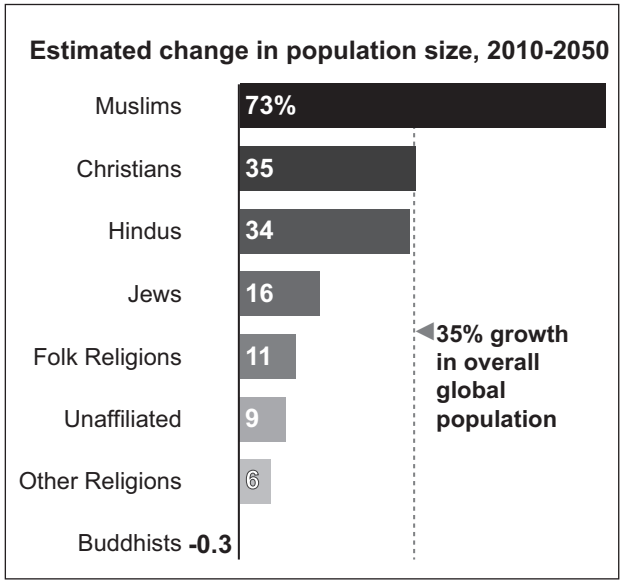
Demographic Changes

The world demographics are changing with population growth in some countries and declining or stable populations in other countries. If current trends continue, India's population will exceed China's in 2022 to become the world's most populous country and Nigeria's population will overtake the U.S.A. in 2049 to become the third most populous country as displayed in Chart 3 (Worldometers, 2015).

In addition to world population changes, religious demographics are also changing. The affiliation with the top three major religions will likely continue, with some increase to the "Unaffiliated" group, however Muslims are the only religious demographic group that is increasing faster than the rate of increase in world population. As depicted in Chart 4, if current trends continue, Islam will become the most populous religion in the world by 2070 (PEW Research Center, 2015).

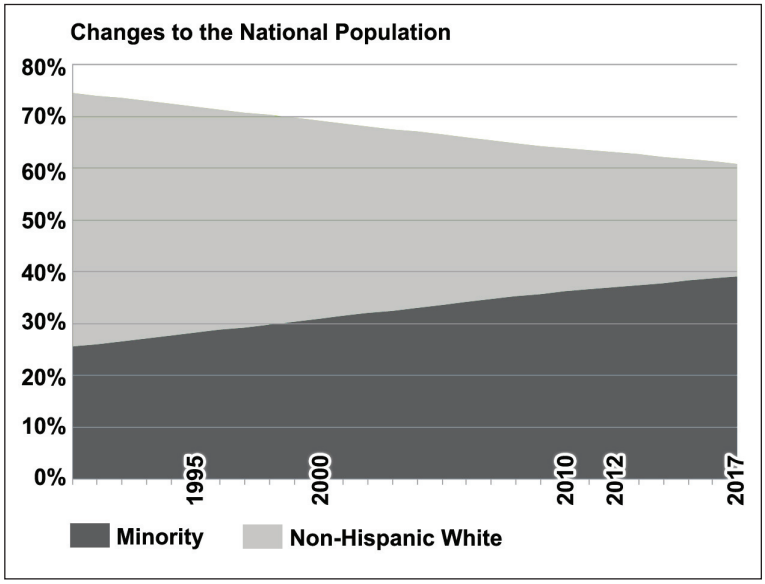
As depicted in Chart 5, U.S. national demographics trends are also changing significantly. Over the past century, the non-Hispanic white population exceeded other demographic groups; however, this trend will change in the next half-century. If current trends continue, in 2035, demographic groups that today are labeled "minority" will collectively become the national majority, thus, "At some point, using the term minority will no longer make sense" (ESRI, 2015). In several states, non-Hispanic white populations are already in the minority, including California, Hawaii, New Mexico, and Texas (ESRI, 2015). Higher education must prepare students to live and thrive in a world with such global and national demographic changes.

Chart 4



(Chart reproduced from "The Future of World Religions," PEW Research Center, Religion and Public Life, Graph retrieved from: http://www.pewforum.org/2015/04/02/religious-projections-2010-2050/ Reprinted with permission.)

Chart 5

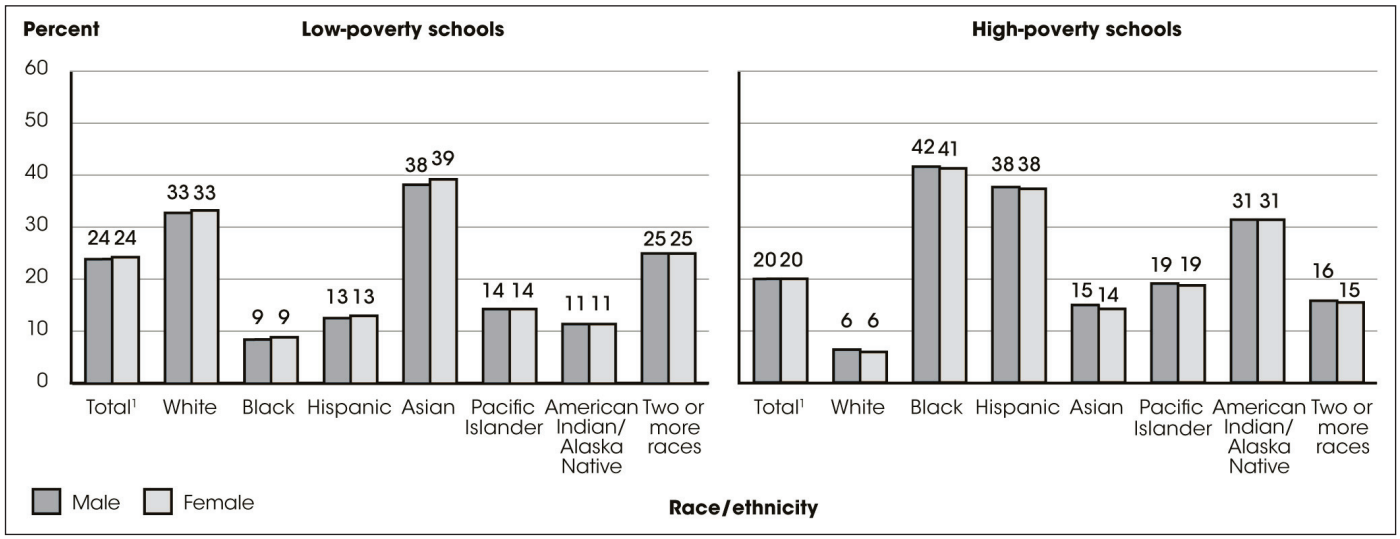


(Chart reproduced from: Changes to National Population, Minority Population Growth: The New Boom, Analysis of America's Changing Demographic, ESRI, 380 New York Street Redlands, California 92373-8100 USA, p. 3, Copyright 1995–2015 ESRI, Retrieved from: http://www.esri.com/library/brochures/pdfs/minority-population-growth.pdf. Reprinted with permission.)

Academic Equity

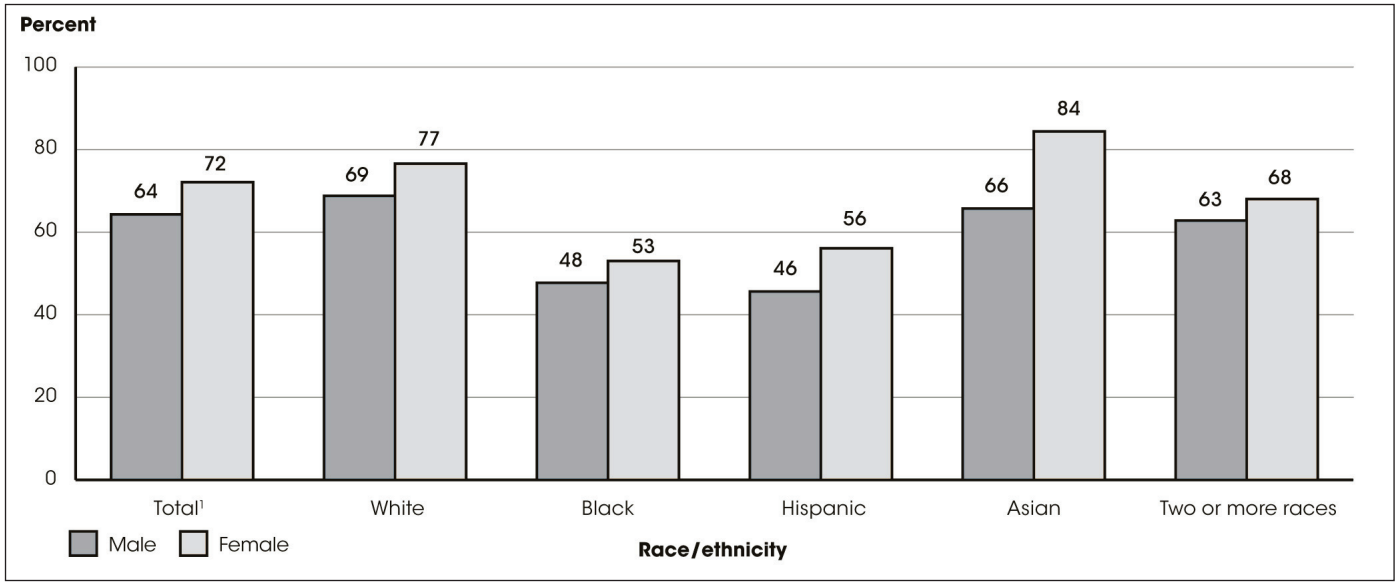
Access to education is a global challenge, highlighted by the work of Nobel Peace Prize Laureate, Malala Yousafzai (Yousafzai, 2015). Her advocacy efforts outline the challenges for international academic access that the world must address. All nations and demographic groups need to have access to a quality education without hardship or fear. In the context of the international struggle, U.S. National trends are also not encouraging. Educational segregation exists across the nation with differing access for specific demographic groups particularly in respect to low and high poverty schools (Ross, et al., 2012). As illustrated in Chart 6, higher percentages of White and Asian students attend low poverty schools, while higher populations of American Indian, Black and Hispanic students attend high poverty schools. High poverty schools are, in general, less well funded than low poverty schools. They receive fewer resources and often provide a lower quality of education for students

Chart 6 Percentage of students in low- and high-poverty public elementary and secondary schools, by race/ethnicity and sex: School year 2010–11



(Chart reproduced from Higher Education: Gaps in Access and Persistence study, Institution of Education Sciences, August 2012, graph retrieved from p. vii: https://nces.ed.gov/pubs2012/2012046.pdf, Reprinted with permission.)

Chart 7 Percentage of 2003–04 full-time, beginning postsecondary students who first attended a 4-year institution and attained a bachelor's degree by June 2009, by race/ethnicity and sex: 2009



(Chart reproduced from Higher Education: Gaps in Access and Persistence study, Institution of Education Sciences, August 2012, graph retrieved from p. xii: https://nces.ed.gov/pubs2012/2012046.pdf Reprinted with permission.)

who attend. Accordingly, American Indian, Black and Hispanic students have much lower completion rates and much higher dropout rates. The students from these high poverty schools that do indeed persist and enter higher education as freshmen face issues related to poor preparation, as well as challenges related to poverty and equity. These issues contribute to the lower retention and completion rates for minority students in higher education as displayed in Chart 7 (Ross, et al., 2012). Higher Education professionals must develop strategies to successfully educate these students. All students need a quality education to be successful and become productive, contributing citizens.

New Ways of Teaching

Given the context of the global changes that today's students will experience during their lifetimes, the challenges for Higher Education are also identified. Educators have the daunting task of developing curricula, delivery methods, and alignment that provide access and equity for all students. An educator's goal is to ensure that each and every student is provided a means to achieve their personal goals as well as attain the knowledge, mindset and skillset to solve the challenges of tomorrow. Students will need an expanded skillset to not only think critically and conceptualize solutions for complicated situations, but to actually facilitate and create a lasting impact by working with people. There is a need for today's educators to go beyond the cognitive and affective learning domains which were the focus of the educational techniques of the past, to include the psycho- social and psycho-motor learning domains (Royal College of Psychiatrists, 2015). Today's educators will need to go beyond the techniques aligned with only the lower levels of Bloom's Taxonomy and become adept at techniques that take students to its upper, translational, innovation levels (Bloom et al., 1994). Once understood and mastered by educators, these desired learning outcomes and advanced skills can be taught through the intentional design of curricula, enriched environments, as well as experiential and immersion learning activities. Educators must gain prowess with intentionally designing inclusive content, active delivery techniques and experiential activities like community service and other engaged learning techniques. The context and challenges for higher education are just some reasons why community engagement has become increasingly important in curricula as educators move away from only "emphasizing product" and toward "emphasizing impact" (Fitzgerald et al, 2012).

In addition to developing prowess in new teaching and learning techniques, educators must ensure that buy-in is developed and communities of practice established for the sustainability of the new way of educating students on their campuses. Educators must not only help themselves but they must also teach students to become adept at using these same community building techniques since these community building techniques are exactly those that today's students will need to use to change their communities toward increased functionality and social justice.

Learning Theories and Educational Techniques

Constructivist Theory

Constructivist theory was first conceptualized by Piaget who hypothesized and verified that knowledge is actively constructed by a learner, building upon prior knowledge, hypothesis and exploration (Ozer, 2004). Piaget felt that students need to be provided time to develop new knowledge that is meaningful to them. In parallel, Vygotsky, took this theory toward social constructivism, he explained that knowledge was also imparted through community and cultural context. Vygotsky felt that interactions with peers and mentors (more experienced adults who act as guides) contributes to much higher levels of learning than when a learner attempts to construct knowledge alone. Both Piaget and Vygotsky felt that learning environments should be designed as knowledge "construction zones" (Ozer, 2004). For today's educators, it may not be difficult to grasp that new knowledge can be constructed via active learning and experiential delivery methods. However, what is key for educators is to develop ways to understand today's students' prior knowledge, particularly when student prior knowledge may be far different from today's educators' experience. This understanding is necessary in order to design learning activities that create bridges to desired new knowledge and skills. In the context of engineering education, an analogy can be taken from a classic material science experiment, familiar to many engineering educators: When metal is molten and begins to cool, there exist impurities and areas called 'nucleation sites.' It is at these preexisting nucleation sites that the new crystals begin to grow attaching to these sites and then other grains begin to attach to those first grains. Eventually, the grains grow so large that the grain boundaries connect to each other and become more and more solid. This natural phenomenon can be useful in imagining how knowledge is constructed. Students enter higher education with an existing network of knowledge within their brains. New knowledge will be constructed starting from their personal initial state. Educators must design the paths and processes to enable students to build upon their current knowledge to construct knowledge at the desired new state.

The Domains of Learning

The domains of learning are presumed to consist of the cognitive (knowledge), affective (attitude/emotions), psychosocial (social), and psychomotor (physical), as presented in the Classification of Learning Skills (Apple, Beyerlein, Leise & Baehr, 2007), Domains of Learning (*Royal College of Psychiatrists*, 2015) and further supported by research by El-Sayed and El-Sayed (2012).

Experiential Learning Theory

Experiential learning can be described by learning through consequences and traditionally is stated as the cycle of: **Plan, Do, Reflect,** and **Learn**. Learning can encompass and integrate knowledge, attitude and skills (El-Sayed, 2008). The four phases of the experiential learning theory cycle together contribute to constructing new knowledge. In the first phase, **Plan**, students plan an action. It is critical that students understand what they are attempting to do and they must understand what they think that the consequences will be to their planned action. In the next phase, **Do**, the students put their plan into action and execute it. They observe the consequences of their plan and identify details. The next phase, **Reflect**, is a key component of students' learning. Students reflect upon what they thought was going to happen, what actually did happen, and the consequences of the details of their plan. This reflection can be individual, in groups, with a mentor, oral, written, or a well-designed integration of many reflective activities. The final phase of the cycle, **Learn**, is constructed through thoughtful internalization of the consequences and the reflection of the experience. This internalization constructs new knowledge within students' brains. With this new knowledge, students are ready to begin the **Plan, Do, Reflect,** and **Learn** cycle again to validate the new knowledge and drill down or generalize it. The experiential learning theory cycle is a continuous process as long as students continue to actively learn and construct new knowledge.

Models of Experiential Learning in Higher Education

Models of experiential education include cooperative education, service learning, international experiences, internships, undergraduate research, and community service or engagement. Each of these provides students with the opportunities for intentional and unintentional learning. Cooperative Education is a type of work integrated learning, often with rotations between work and school terms. Students hold paid jobs in a professional or corporate organization usually going back to the same organization several times. Because they rotate, they usually start at simpler jobs and as they develop professionalism, knowledge and skills, they take on more responsibility. They learn both discipline specific and attitudinal lessons, as well as the importance of life-long learning (El-Sayed and El-Sayed, 2014). Internships can be similar because they are often also in professional organizations but are often unpaid, although some can be paid positions. Internships are often during the summer when classes are not in session. Students may complete internships at one or two organizations so they may try different types of roles to explore and gain perspective. Undergraduate research is usually completed on campus, supported through funding from grants or industry. Students learn how to perform in laboratory environments under the mentorship of more experienced peers and professors. International experiences expose students to different cultures and languages. They can develop cultural competencies toward becoming responsible global citizens. Community engagement can be volunteer work at many different organizations or settings. It can entail mentoring and tutoring area students, activism, campaign work, or serving within philanthropic organizations such as shelters, soup kitchens or mission work, often in urban or rural areas. It can also involve service to other students on campus through outreach or mentoring. Service learning is a course taught by a professor with community activities built into the curriculum directly tied to the course content.

Types of Models for Engaged Decision Making

Surveys are among the most basic tools for engaged decision making (El-Sayed, El-Sayed and Beyerlein, 2010). These are often forms with questions that are sent to relatively large groups. They require a limited amount of time on the part of the facilitator and the respondent. In order to get meaningful feedback, it is important that the survey is well designed according to appropriate standards so as not to induce bias. Often surveys can identify themes which are useful to begin to focus the process.

Focus groups are small groups of specific demographic groups, often composed of randomly selected individuals. Focus groups discussions also need to be designed according to standards so as to not introduce bias and to ensure the feedback is meaningful. Focus groups can provide a mechanism for drilling down to understand specific dynamics or opinions.

Shared governance is a formal committee often composed of elected representatives that operate according to bylaws and rules of order. It usually formalizes

interactions between organizational groups and facilitates decision making through formal channels.

Visioning exercises and strategic planning is a means to develop among a large group of stakeholders, a shared understanding of a futuristic, singular identity. After developing an understanding, a consensus of a set of actions to move towards that shared, future state can be established. It builds feelings of ownership and buy-in for the shared goals.

Participatory Action Research (PAR) is a method for collaborative investigation and discovery while executing a project, often a community project, in which it is desirable for community members to assist in focusing the work and also feel shared ownership over the results and impact of the project. PAR is often described as a five phase cycle: **Reflect, Analyze, Plan, Act,** and **Evaluate**, with parallel, continuous observation and data collection (Brown et al., 2012). Through this optimization cycle, the team of researchers works together with community members to define and guide the effort. In the first phase, **Reflect**, the project or problem is methodically defined, in the next phase, **Analyze**, the context, pertinent variables and interactions are identified, after comprehensive analysis, in the next phase, a **Plan** is conceptualized, then in the next phase, **Act**, the plan implemented. In the final phase, **Evaluate**, the impact of the action (or plan) is thoroughly documented and examined. Subsequently, similar to an iterative, mathematical optimization process, the cycle then begins again with collaborative reflection, analysis and team planning for the selection and implementation of the next action, in continuous movement toward improvement until there is mutual agreement that the project is completed, the solution is found or the problem has been significantly reduced.

Case Study Example: Marygrove College

A case study is a useful exercise to understand the importance of intentionally designing curriculum while simultaneously building community. This community can be established by utilizing active participation and engaged decision-making techniques to select, develop and integrate the content and delivery. It is useful to understand how to tackle the infusion of a specifically selected topic(s) across general education, existing majors, mandatory community engagement and how to develop new programming, as well as to provide a concrete example for how such processes are executed in real-life to transform a community.

Active participation techniques can be dovetailed with engagement efforts to target students and faculty efforts toward the priority needs of the community. It can also be used to harvest the wisdom of community members, and identify collaborations while building trust and buy-in. Due to emphasis on shared governance, faculty are often adept at using participatory techniques for decision making and scholarly studies.

At Marygrove College in Detroit, Participatory Action Research is at the forefront of faculty expertise, while community engagement is integrated into all students' academic experiences, and aligned with the institution's urban social justice mission (Brown et al, 2012; Marygrove College, 2015, Mission). Building upon this foundation, Marygrove recently completed an intensive institutional initiative to infuse *Urban Leadership* (UL) into all curricula (general education and all majors), co-curricula and campus life (including community engagement and field experiences). Additionally, in a continuation of the UL effort, new programs were seeded under the Urban Leadership transformation umbrella and then fully developed and approved as new degrees. This case study will describe the process for how UL was incorporated across all majors, general education and experiential learning, including the engagement activities and new programs, through baseline curriculum analysis, development of new Institutional Learning Outcomes (ILOs), faculty curricular projects, and new, aligned, structural changes, making Marygrove College unique in its institutionalization of UL (Tice, 2015).

Marygrove's Special Mission

Marygrove College is a Catholic, liberal arts college in the heart of Detroit, Michigan. Founded by the Sister, Servants of the Immaculate Heart of Mary as a women's college, it became co-education in the 1970's and established the current mission of serving the surrounding communities in Detroit (Marygrove College, 2015, Mission). Detroit was once a major, prosperous city strongly aligned with the automotive industry. Immigrants came to Detroit to work in the well-paying jobs of the automotive factories and settled their families in its various neighborhoods. The immigrants hailed from Eastern Europe, the Middle East, Africa and other areas resulting in a community that is rich in ethnic and religious diversity. With the decline of the automotive industry since the 1980's, the relatively recent federal bail-out and the Chapter 11 bankruptcy processes first for General Motors and then the City of Detroit, the Marygrove neighborhood and college community also experienced simultaneous challenges.

Marygrove is built upon the *3C's: Competence, Compassion and Commitment* with a strong social justice mission that includes intentional inclusion (El-Sayed, May 2014). The curricular emphases areas, as displayed in Figure 2, include Educational Excellence, Social Justice, Cultiva-

tion of Diversity, Ethical Behavior, Gospel Values, Interconnectedness, and Commitment to Urban Focus. Faculty are experts in their fields and adept at engaged decision making and community building techniques coming together annually to share their research via the Marygrove Academic Symposium (Klug, T., Woodard, L., 2014).

How the Curriculum was Transformed

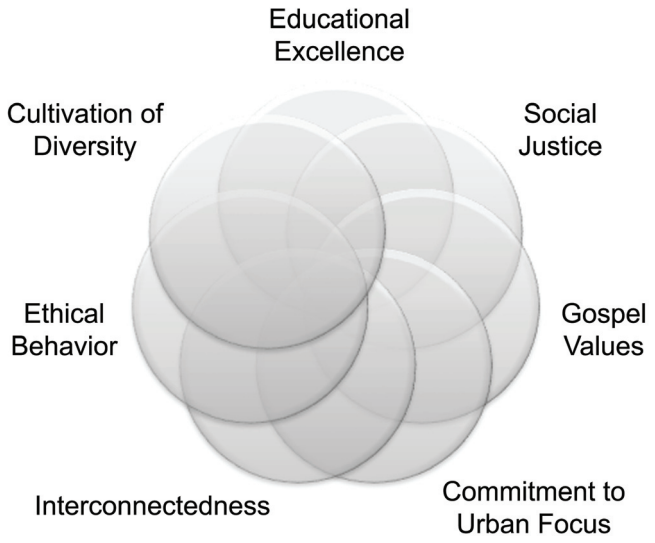
The decision was made to focus the curriculum on Urban Leadership (UL) after utilizing several techniques for engaged decision making, including surveys, focus group discussions, visioning exercises, and campus and community Participatory Action Research projects. By providing area students with Urban Leadership knowledge and skills, the faculty, students, and Marygrove alumni could work together with community members to rebuild the surrounding neighborhoods and the City of Detroit. This work was conceptualized into a proposal entitled, *Building Our Leaders in Detroit* (BOLD) and ultimately funded by a generous grant from the Kellogg Foundation in Michigan. Depicted in Figure 3, the end process for institutionalizing the BOLD UL knowledge and skills included: infusing the entire curriculum with the BOLD 14 principles, establishing a centralized Success Center for housing the co-curricular and success coaching activities, and proposing the establishment of a Teaching & Learning Center to house and build upon the unique professional development techniques developed by the faculty and staff during the BOLD intensive 3-year initiative (El-Sayed, May 2014).

Identifying the Baseline State of the Curriculum

Active faculty and staff worked during the first phase of the transformation of the curriculum to develop the knowledge and skills that were deemed by the campus and surrounding community to be essential for a successful Urban Leader. Several PAR community projects and a number of Teaching and Learning Teams (TLLT) were formed for discussions and engaged decision making. These discussions resulted in the 14 Urban Leadership (UL) Principles which include:

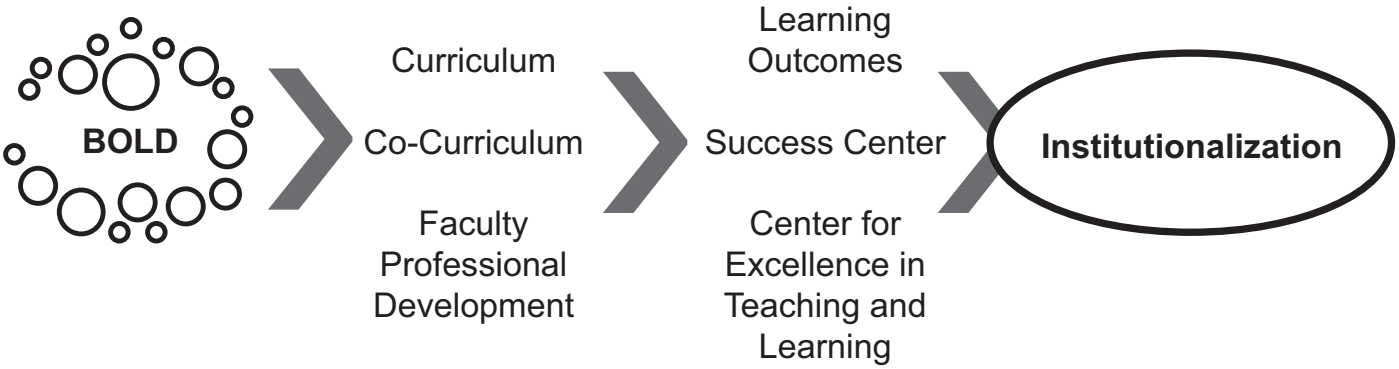
1. Systems Thinking
2. Critical Examination
3. Effective Communication
4. Creativity/Visioning
5. Stewardship
6. Civility
7. Intentional Inclusion
8. Awareness of Others
9. Awareness of Self
10. Civic Engagement
11. Empowerment
12. Ethical Integrity
13. Courage/Risk Taking
14. Collaboration

Figure 2



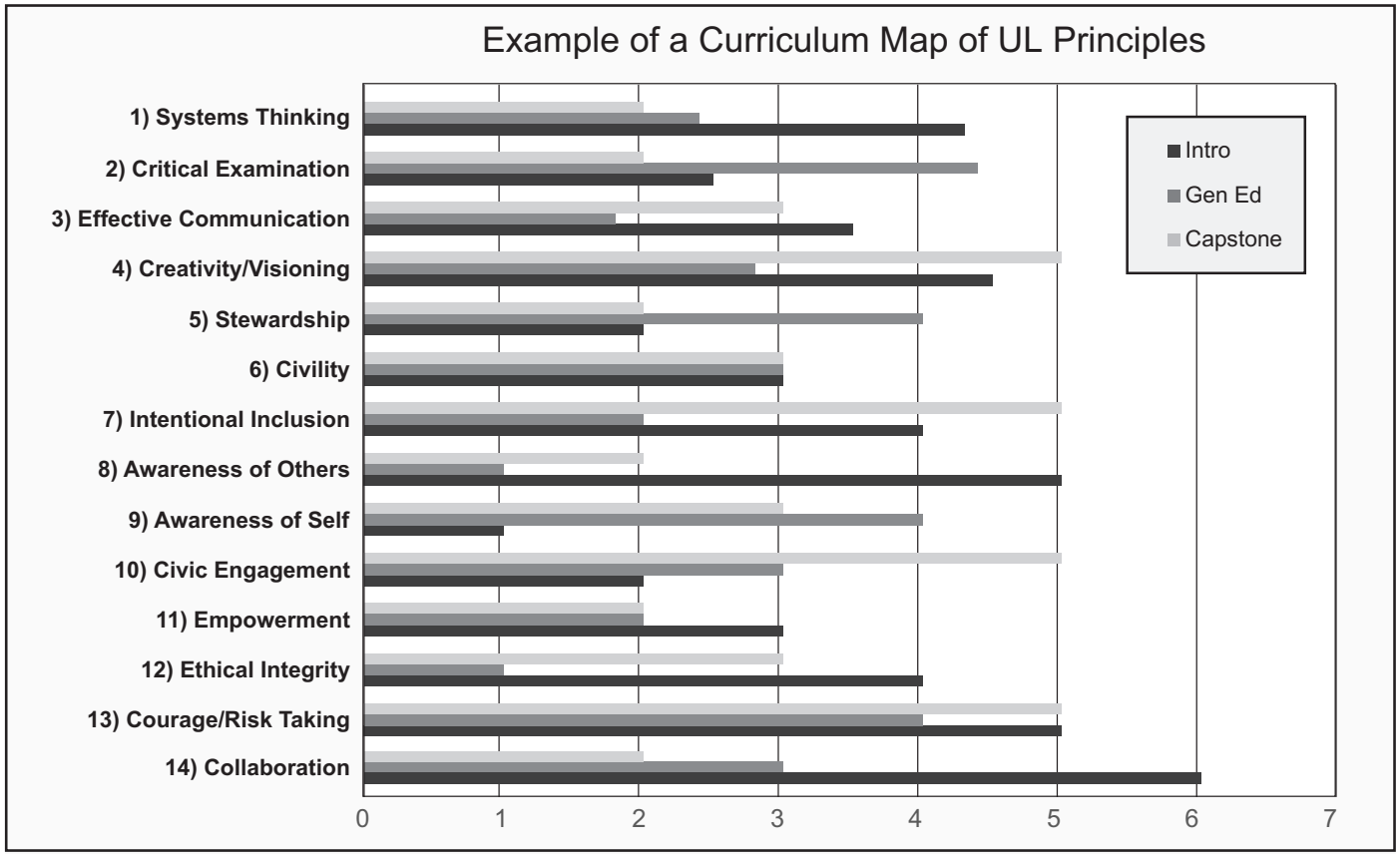
(Figure reproduced from "Best Practices in Diversity: From the Ground Up", J. El-Sayed, Undergraduate Experience Committee Session, American Society for Engineering Education Annual Meeting. [Presentation] Seattle, WA, 2015)

Figure 3



(Reproduced from the "VPAA Update: Presentation for the Marygrove College May 2014 Board Meeting", J. El-Sayed, Marygrove College. [Presentation] Detroit, MI, May 2014)

Figure 4 Illustrative Recreation of the Baseline State of Curriculum Map Prior to Transformation



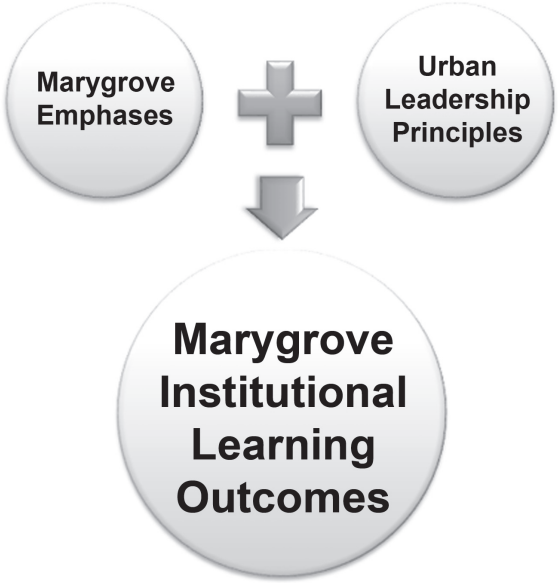
(Example only. Not the actual data. Original from E. Hernandez, B. Overton, & L. Kovacheff-Badke, "Urban Leadership Principles in use by Faculty Fall 2013: Analysis of Faculty Survey Data Presentation: Report to the BOLD Council by the University of Michigan Research Team", Marygrove College, Detroit, MI, June, 2014)

After much discussion and consensus building to identify and approve the 14 UL Principles, the faculty began the lengthy process to identify where these principles were already part of the Marygrove curriculum. The work divided the curriculum into three curricular areas: (1) Introductory Courses, (2) General Education Courses, and (3) Capstone Courses. This analysis provided the baseline for the next phase in the curriculum transformation by documenting where the 14 UL Principles were already well represented and where they were not (Hernandez, Overton and Kovacheff-Badke, 2014). The development of the 14 UL Principles and the curriculum mapping occurred over approximately a two-year span of time. An illustrative example of a curriculum map is presented in Figure 4.

Process for Institutionalizing Urban Leadership into the Curriculum

The next phase, displayed in Figure 5, was to mesh the existing Marygrove Curricular Emphases areas with the 14 UL Principles into Institutional Learning Outcomes (ILO), required for the reverse design of the College curricula and also for Higher Learning Commission accreditation (El-Sayed, August 2014). These ILOs served an important and critical function in transforming the curriculum. A draft document was developed by the Dean of Faculty to initiate the shared governance approval process.

Figure 5



(Modified figure from J. El-Sayed, "VPAA Update: Presentation for the August 2014 Faculty Assembly Meeting" [Presentation] Marygrove College, August, 2014)

Expedited Approval Process and Curricular Infusion

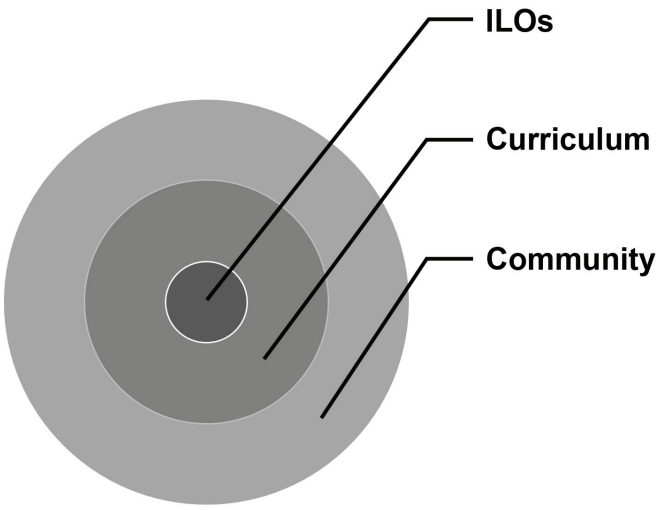
The process utilized to approve and infuse the curriculum is presented in Figure 6. Once the draft ILO document was written, it was introduced into the shared governance curriculum approval processes and made its way through all pertinent faculty committees. An All-Faculty Workshop was developed and held with both large, full group and small, table group discussions. An afternoon All Faculty Meeting was held the same day, the last day of the academic year, and amazingly, due to the engaged decision making processes, the ILOs were approved in a mandate vote by the entire body of the Faculty. Only two faculty voted against adopting the Institutional Learning Outcomes. Remarkably, the entire ILO approval process was completed in approximately one month, start to finish.

Figure 6 Building Comprehensive Buy-In for the Core Learning Outcomes Through Engagement

Urban Leadership Across the Curriculum

Once the core Learning Outcomes were approved, a Request For Proposal process was developed and sent to the entire Faculty; both tenured and adjunct professors could apply. Faculty could submit proposals for curriculum development within General Education, All Majors, and Community Engagement. Courses for new degrees could be submitted under the *All Majors* category. To ensure complete curriculum saturation, the Deans and Division Chairs actively monitored the proposals submitted by faculty and encouraged proposals from areas were gaps were perceived. The proposal deliverables included completing a curricular project during the summer, attendance at a late summer assessment workshop, piloting of the finished curricular module in the next Fall semester, and a summary report at the end of the pilot. A Faculty committee reviewed each proposal and made recommendations to the Dean of Faculty and the VPAA. Due to the intensity of the engaged decision making processes, over 80 Faculty proposals were submitted and completed on time. The development of the ILOs and the infusion of UL into the curriculum occurred over approximately a nine-month span of time. The changes to existing programming were implemented within this timeframe. The new programs that were seeded under this process, such as the new pre-engineering program, then went through the Marygrove faculty curriculum approval processes. Depicted in Figure 7, this intentional design of the Institutional Learning Outcomes, the Curriculum and the resulting effects of the initiative on the Community provided a holistic transformation of the curriculum (El-Sayed, 2015).

Figure 7 Holistic Transformation of the Curriculum and Community



(Figure reproduced from: El-Sayed, J. (2015, September). Transforming Curricula and Community Through Participatory Research and Engagement. Engineering, Social Justice and Peace Annual Conference [Presentation] Mayaguez, Puerto Rico)

Conclusions

Current trends suggest that today's students will need to navigate in a world that is increasingly changing and is much different than that of their parents and grandparents. The increasing rate of technological change and world population will continue to present real challenges and opportunities. These dynamics inform the priorities of Higher Education. Today's educators need to provide a means for preparing students for jobs that do not yet exist.

In addition, changing world and national demographics along with continued academic access and equity disparities add additional challenges for Higher Education. Today's educators must become successful at educating students from demographic groups with whom they have had limited past success.

Because of these challenges, educators must depart from the unsuccessful instructional methods used in the past and new curricular and instructional strategies must be advanced that develop students' abilities to construct

knowledge for themselves. To do so, educators must enable students to make connections within their own contexts and prior learning experiences. By examining and understanding learning theories and the specific context of each student body, educators can use engaged decision making and community building techniques, such as Participatory Action Research, to not only design and implement holistic institutional curricula aligned for student success, but also develop students' skills to use these techniques in active community engagement. These engaged decision-making and community building techniques are exactly those that today's students will need to use to change their communities toward increased functionality and social justice. To be most effective, educators must design holistic *learning-construction environments* that are inclusive of the curriculum, co-curriculum, campus and community.

The Case Study presented provides an example of a successful development and implementation process utilizing engaged decision-making inclusive of both campus and community stakeholders. The process resulted in new curricula, programs and engagement activities, holistically infused across the entire institution as well as new institutional structural alignment. This work transformed the college learning environment to help area students grow the knowledge and skills for achievement, success and life-long learning to, in turn, transform and increase the functionality of their community and, even rebuild Detroit.

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