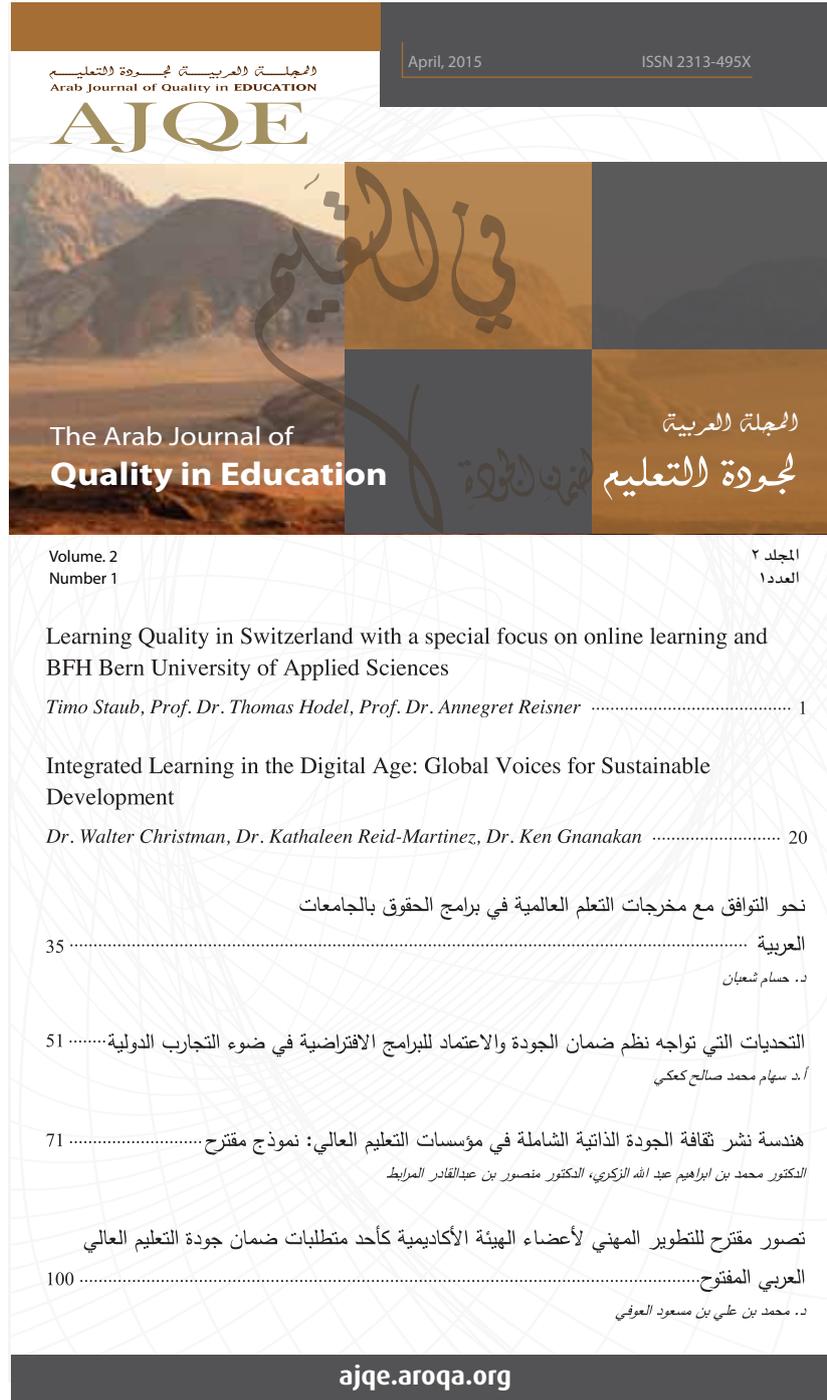


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Integrated Learning in the Digital Age: Global Voices for Sustainable Development

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Abstract— The world is in dire need of new models of *integrated education for sustainable development*. Holism in education requires critical thinking as well as creativity and the whole person as a part of a creative process. Emerging global challenges and risks increasingly underscore the importance of the individual working collaboratively with others around the globe to learn and share with each other, as they examine the complex problems of their regions and our world. Short-term solutions are being considered, but we need long-term ones that will better equip people to face “the uncertainties of the future.” This paper undertakes a comparative review of three forward-thinking and differing institutional responses to global challenges. Stanford University was chosen for its recent initiatives demonstrating how knowledge could be opened to the world through a Massive Open Online Course (MOOC) and it has pursued innovative change by creating a new interdisciplinary educational model across selected disciplines. The Indira Gandhi National Open University (IGNOU) was selected for its commitment to alternative methods of distributing education and commitment to education for the masses, which helps to transform the lives of the disadvantaged in society by providing higher education through distance and open-university approaches to learning. Talal Abu-Ghazaleh University (TAGIUNI) was selected for its collaborative approach in facilitating partnerships, which challenges the traditional monolithic structure of institutions of higher learning. With TAGIUNI’s diverse partnerships, expertise increases exponentially through the synergies of the multiple entities working together to attract students and research regionally and globally. Each is grounded in their unique regional contexts, yet all are responsive to the global need for sustainable development and security. All are pioneering the development of a global consciousness to address emerging threats and risks to sustainable development—going from challenges, to opportunities, to solutions.

Index Terms— Global Challenges, Integrated Learning, Sustainable Development

I. INTRODUCTION

Talal Abu-Ghazaleh University is a global educational alliance – partnering with institutions around the globe to achieve its mission. According to its founder HE Dr. Talal Abu-Ghazaleh (TAGIUNI: 2014): “It seeks to change peoples’ perception of digital education, to show that it is the way of the future. Digital education stemming from international institutions compels individuals to understand the interdependence and interconnected nature of the modern world.”

The world is in dire need of new models of *integrated education for sustainable development*. Holism in education requires critical thinking as well as creativity and the whole person as a part of a creative process. Looking back over the past decades, we clearly see the outmoded and ineffective systems of education that have prevailed particularly in Africa, the Middle East and Asia continue to linger and impede progress toward a better and more sustainable future. Even in the developed world, where learner-centered, creative teaching is more prevalent, assessment is often oriented toward university placement with focus on a narrow band of learning, which avoids holism in favor of myopic preparation leading to careerism. Education resulting in productive engagement in the community is a vital imperative; however, it may best be achieved through a values-based, integrated education of various kinds that fuses local citizenship with global citizenship. Moreover, emerging global challenges and risks increasingly underscore the importance of the individual working collaboratively with others around the globe to learn and share with each other, as they examine the complex problems of their regions and our world. Short-term solutions are being considered, but we need long-term ones that will better equip people to face “the uncertainties of the future.”

This paper undertakes a comparative review of three forward-thinking and differing institutional approaches. Each of these offers a different model. First, one model reveals identity formation, including notions of global citizenship. The second one reflects the democratization of knowledge, which includes affordability and accessibility of education. The third one shows global connectivity for collective wisdom, indicating the important role of educational technology in integrated learning to support sustainable development.

Stanford University in the United States was chosen for its recent initiatives demonstrating how knowledge could be opened to the world through a Massive Open Online Course (MOOC) and it has pursued innovative change by creating a new interdisciplinary educational model across selected disciplines. This initiative involves a dramatic focus on integrating the diverse expertise of the university by creating an interdisciplinary approach to learning. It is harnessing the wisdom of crowds as global learners come together in one virtual location to share lived experiences and knowledge in this digital community of learning.

The Indira Gandhi National Open University (IGNOU) in India was selected for its commitment to alternative methods of distributing education and commitment to education for the masses, which helps to transform the lives of the disadvantaged in society by providing higher education through distance and open-university approaches to learning. Serving as a change agent, the institution has brought an inclusive knowledge culture into a highly diverse society through transformative education. This was achieved by using multiple technologies for learning and infrastructure integration. As a result, the university

serves and influences not only India, but 36 additional nations through centers and networks designed to bring transformation in education to differing populations.

Talal Abu-Ghazaleh University (TAGIUNI) in Jordan was selected for its collaborative approach in facilitating partnerships, which challenges the traditional monolithic structure of institutions of higher learning. With TAGIUNI's diverse partnerships, expertise increases exponentially through the synergies of the multiple entities working together to attract students and research regionally and globally. Its founder, HE Dr. Talal Abu-Ghazaleh contends (TAGIUNI: 2014), "Talal Abu-Ghazaleh University makes it possible for transformational societies to embrace new concepts from the ground up. Given the adaptive nature of these societies, accessibility to higher education is imperative to maximize their potential."

As the cursory review of three institutions in this paper suggests, each of the universities is in transition while leading transition; each serves as a change agent and each simultaneously has a foot in modern and post-modern thinking. They are grounded in their regional contexts, yet all are responsive to the global need for sustainable development, peace and security. In their transformative educational roles, IGNOU pushes into frontiers of distribution of learning geographically and socially, while Stanford's MOOC integrates learning to strengthen empirical research and development of leaders. TAGIUNI responds by establishing a strong network of educational institutions to provide an integrated approach for shared education under one umbrella. All are pioneering the development of a global consciousness to address emerging threats and risks to sustainable development--going from challenges, to opportunities, to solutions.

II. A GLOBAL UNDERSTANDING: PAST AND PRESENT VOICES FOR INTEGRATED LEARNING

Ken Robinson (2011), the noted educationist writes, "We are living in a world that is changing faster than ever and facing challenges that are unprecedented. How the complexities of the future will play out in practice is all but unknowable." Aiming at promoting a creative revolution in education, Robinson in his preface emphasizes, "The great revolutions in human history have been brought about by new ideas; by new ways of seeing that have shattered old certainties. This is the essential process of cultural change." And this is what the authors of this article affirm: We need to shatter old certainties in order to face the uncertainties of the future, and this will mean drastically changing our approach to education.

Assured that education plays this foundational role, we look carefully at our precarious present context and then move on to considering the kind of education required to prepare people to engage in the process of cultural change and thereby equip them to face these uncertainties. Whether it was John Dewey in the US, Pestalozzi in Europe, Tagore in India or Confucius in the Far East, they were all leaders of the past preparing their people for their time and to face the future. Is that future now, we ask? Are we preparing people to tackle our present problems? Are learners able to face the future? These and other questions will need to be addressed boldly and honestly in order to arrive at some concrete solutions to build towards a sustainable future for our planet.

Outmoded and ineffective systems of education particularly in Africa, the Middle East date back to the Industrial Revolution and arguably handled the needs of that time, but are

unproductive for today's complex global problems. In much of the developing world, especially for children, outmoded patterns of teaching continue the same lessons, and lectures are delivered year after year, with little motivation from teachers to update their knowledge of contemporary local and global problems or even delivery methods in keeping with modern advances. Students are viewed as lifeless vessels into which certain facts and figures are to be poured, with little consideration for how to equip a child or an adult to face the crisis of context that globalization poses to everyone, irrespective of age or location, and this approach will continue for the foreseeable future unless dramatic steps are taken to remedy it (Gnanakan, 2011).

So we start with a fundamental question – What is real education? Education may be defined as developing knowledge, skills, or character of an individual to grow into a productive person to be of service to the community. Over time, many concerned philosophers and practitioners of education have delved into this question of education and its implications for the individual and the society. They have integrated their concerns in ways to transform the individual in order for them to become transformers of society. Often, they went against commercializing trends and attempted to restore the true meaning in education. Unadulterated education, we suggest, is not just for individual benefit, but for the building of a better, more sustainable world.

In Ken Gnanakan's book, *Integrated Learning* (2011), he draws upon past theorists and his own experience to lay out the concept of transformative learning through integrated education, which encourages holistic, non-fragmented learning. Built on concepts of synergy, holism and interconnectedness, integrated education, he claims, embraces learning within real life, making real connections within known social and physical contexts. Teachers create learning environments where children feel “at home” rather than in a strange “school” that is alien to their psyche making the classroom a part of the real world with the whole learning experience perceived as *one whole* dealing whole people.

Looking at ancient precedents, Gnanakan observes a long historical support for this concern right up to modern times. For instance, Plato's goal to improve the political leadership of Greece for leaders to build a better society, or Confucius, whose philosophy of education continues to influence social life in Asia today, were not merely concerned for educating the individual, but for the individual to transform society. Likewise, the American John Dewey placed education strongly within the community setting and believed that learning was experiential with a continuous and intensely social process involving people and their customs, institutions, beliefs, victories and defeats, recreations and occupations (Dewey, 1916 rpt. 1997). Changing India was Gandhi's concern and demonstrated through his concept of “Basic Education.” He challenged the British form of education which only served the colonial agenda with its emphasis on teaching English. Instead Gandhi offered a comprehensive educational plan for his country that included the integration of vocational crafts, particularly spinning. He wanted to transform India, not in keeping with the colonial agenda, but with an education that promoted self-reliance resulting in restoration of self-dignity. These were some seeds of transformation for sustainability. Another influential model of education for societal change is the work of Brazilian Paulo Freire, which advocates education primarily for socio-political change. Proposing a revolutionary approach to adult education in oppressed contexts, Freire's radical pedagogy has impacted

educational and social movements throughout the world in a wide range of academic disciplines including sociology, anthropology, applied linguistics, pedagogy, theology and cultural studies (Freire, 1993). His influence went beyond academics into true transformational outcomes within the community.

Finally, we must mention Jack Mezirow (1977, 1981, and 2000) who pioneered the distinctive approaches in contemporary education theory needed to equip adult education to enable integration for transformed lives. His work carries a strong emphasis on the “disorienting dilemma” as a motor of transformative learning. Emerging global challenges may pose a storm of such disorienting dilemmas. His “reflective discourse” encourages a process in adult education resulting in the individual’s thinking becoming more inclusive and experiences more integrative. Like Paulo Freire, Mezirow regards integrated educational processes as a liberating force since they provide experiences to help learners see themselves in a new light and results in their capacity to act with new understanding within their contexts.

All these approaches to education affirm the educational process as something far more than a pre-packaged program of study, an academic experience leading to a paper credential, or an individual accomplishment. True education is all about formation of the individual for societal transformation. Holism in education requires critical thinking as well as creativity and the whole person as a part of a creative process. Further, educational research shows that transformative education processes require a keen sensitivity to the local context and cultural traditions within which such education takes place. Indeed, today’s education must be more than just formation of the individual. It must be about an integrated approach to life if we are to respond to the today’s far-reaching, complex demands of sustainability.

III. TOWARDS GLOBAL SECURITY AND SUSTAINABLE DEVELOPMENT

Increasingly, educationists everywhere are beginning to assess whether it might be the current prevailing Western education paradigm that is being emulated all over the world that has resulted in the global economic crisis, climate change, unsustainable disparity and continuing destruction of our shared environment at an unprecedented rate. We are in dire need for new models of *integrated education for sustainable development*.

This paper proposes that all our solutions hinge around sustainable development and therefore what we need are new models of education for sustainable development at all levels of the global society. Included is a look at the development of digital cooperatives that capitalizes on emerging information technologies for distributed learning and is enhanced by a federation of research institutes and think-tanks. There is an urgent need for *Integrated Learning* models that promote sustainable economies, businesses, and energy utilization, while providing water and food for a world population that could reach more than nine billion people by the middle of this century. The world is beginning to recognize that these threats are derived from the growth of unsustainable economic and development systems worldwide and must be addressed, not just by individual nations, but also through *global partnerships* that address the threatening contemporary challenges. And for this, education is the key.

At the same time, integrated learning will be transformative only if it involves a fundamental questioning or reordering of how one thinks or acts. Reflection alone will not

result in transformative learning unless the process involves a wide-spread critical reflection of existing power relationships and hegemonic assumptions. It is for this reason that we need a global *Integrated Learning* agenda, one that will promote local development of educational curricula for communities and businesses that includes life-long learning in fostering the adaptive and resilient responses to problems that confront us all. The need for a holistic, emotionally intelligent, and effects-based approach to education is growing by the day. Integrated learning can help to mobilize a wider array of actors to address challenges to global sustainability in a more effective and comprehensive manner.

IV. GLOBAL SECURITY THROUGH SUSTAINABILITY: PROCESS OR OUTCOME?

The definition of sustainable development set forth by the Brundtland Commission, “development which meets the needs of current generations without compromising the ability of future generations to meet their own needs,” highlights the need for new models of sustainable education to develop moral, ethical agents who can harness resources, investments, technological growth and institutional change in a harmonious balance that looks not just to the needs of the present but to the good of future generations.

Many of the leading challenges to our planet’s sustainability, issues of global security and the hope of socio-economic prosperity at the dawn of the twenty-first century are caused by both human as well as natural forces. These have triggered off climate change, projected shortages of water and food sources, dwindling energy reserves, pandemics and various purely human threats including nuclear proliferation, and non-state terrorist groups, to name a few. While many contemporary practitioners are now getting to the roots of the global security problem, thus far, no holistic approach to these challenges has emerged to equip us with the “resilience and adaptiveness” that is necessary for all nations to adopt in response to emerging global threats.

These unresolved challenges that threaten sustainability and security pose a *disorienting dilemma* (Mezirow, 1977) in the global collective consciousness and can only accelerate the accumulation of transformations in “meaning schemes” around which people everywhere understand their fundamental wellbeing. A recent series of events has given credence to the call for transforming global education and a more holistic assessment of the threats facing all humanity. The revelations of interconnected threats and risks, illustrated in the examples such as the Japanese nuclear crisis, the historic downgrade of the American government’s credit rating, the European financial system on the brink of collapse, and global job migration, all illustrate key security issues stemming from globalization that eludes any narrow focus on ‘national’ approaches. On the positive side, the ‘Arab Awakening’ illustrates how connected people can empower themselves to promote change, yet needs to be guided by holism.

The convergence of these events suggests that ‘sustainability’ is a matter inclusive of, but larger than, profitability and economic security; these events pose the question of whether we are entering a condition of increasingly unmanageable political and social pressures. Like other modern threats, threats to economic security are part of a complex ‘ecosystem’ in which various challenges interact, affecting individual states and the global community as a whole. There is therefore an economic, environmental and social interrelatedness that is

foundational to sustainability. Foundations of education must recognize this holistic interrelatedness and build this into the learner's thinking right from the early stages.

A key issue is the role of sustainability in the education process. Specifically, does sustainability serve as a part of the process or is it an outcome of the education? Sullivan (2012) in his argument for sustainability and transformative education advocates that we must forge a planetary view that recognizes the holistic nature of education with the context of the universe. He argues that without this approach, we cannot move beyond the current culture of the economic market place and put into practice what is required for an environmentally sustainable planet. To do so, he further suggests, that education see the sacred and religious as critical to a holistic approach of transformative learning to assure integral development, which can result in a personal ecological ethic that promotes sustainable quality of life on the planet. His work points to the need to understand the importance of the outcome of sustainability from the learning process. Lange (2012) continues the concern for sustainability and points to ways in which transformative learning can be adjusted to respond to the crises we are facing. She points to the diverse ideas, theories, and practices that are competing in a postmodern context. In Lange's call for transformative, integrated learning the need to re-educate humanity is central. This involves rethinking the process of transformative learning pedagogy, outcomes and ethics in education. When transformation along these lines occurs, she argues the results will be an inter-connected world for long-term sustainability.

In contrast to Lange and Sullivan, the work of Taylor and Elias (2012) focuses directly on the transformative journey at the individual level and sees sustainability as an outcome of that transformation. They point to the challenges of economic and political dichotomies coming out of the current educational models. They suggest that the integrative learning process at the individual level encourages a more comprehensive caring society, which can in turn support our planet's survival and allow people to prosper. The work of Wals and Corcoran (2006) makes an interesting shift away from viewing sustainability as outcome or end state, to seeing it as part of the process, one of many drivers creating transformative learning. As these researchers indicate, a "deep democracy perspective" requires higher education institutions to provide venues for multiple perspectives on sustainable development. These differing and often conflicting perspectives surrounding sustainability co-exist, creating tension, conflict, and eventually convergence for the learner. The authors demonstrate the value of this educational process, which shifts sustainable development from an outcome of education to a driver of learner transformation. As implied in the discussions above, creating responsible local and global citizens requires understanding sustainability as an integral part of the educational "task of discovery" and the metamorphosis of the learner in response to the long-term needs of society and nature. Integrated, transformative learning requires that sustainability be part of the process, not just the outcome of learning.

V. THREE EXAMPLES OF INTEGRATED LEARNING IN THE DIGITAL AGE

This review provides a brief look at how selected institutions of higher learning are responding to challenges to global sustainability. A cursory review of three institutions will be used--one from the West, one from the East and another from the Middle East. Through their use of Internet-based technologies, these educational institutions fuse time and space

and build communities that are both local and global through digital networks and partnerships. In this fused world, where learners must connect and identify as both local and global citizens, technology—“the medium is the message,” as McLuhan once famously said. In our analysis, technology in this context is more than merely a vehicle for “transmitting educational information.” Rather, technology also “transforms the learner” from observer to participant, from powerless to empowered, and gives voice to the silent.

Stanford University's Massive Open Online Course

Stanford University is noteworthy for its recent initiatives in making learning effective. First, the institution allowed for technological exploration that demonstrated how knowledge could be opened to the world through a Massive Open Online Course (MOOC), and second, the institution pursued innovative change in learning by creating a new interdisciplinary educational model across selected disciplines. This initiative involves a dramatic focus on integrating the diverse expertise of the university by creating an interdisciplinary approach to learning. President John Hennessy says, “We’ve undertaken a new model in higher education with experts from different fields joining together” (Chea, 2012). Specific areas involved are education, environment, human health, and international affairs. This change has enabled Stanford to increase collaboration, so it can, “assume a larger goal in addressing global problems” (Chea, 2012). What this suggests is that Stanford is changing itself in order to more aggressively respond to the challenges of sustainability and leadership needed to address both local and global citizenship needs of the 21st Century.

These learned experiences will help in reconciling the student with the larger world of ideas through exploration of values, morals, and ethics found in the local context and global connections of the learner. To negotiate from the local to the global and back requires a holistic approach to education, so that the learner gains the multiple intelligences and affective ability to make informed, moral decisions and the capacity to implement changes in a balanced manner. This, then, will produce the critical response to the social need and environmental concerns in a way that is aligned with the individual’s local community, yet can transcend into the broader society. The emotional intelligence and capacity to negotiate between and among these challenge-laden spheres assures a greater likelihood of sustainable development and global security. Stanford’s approach is a creative response to the fragmented nature of modern education as it has emerged in the West.

The Indira Gandhi National Open University

The Indira Gandhi National Open University (IGNOU) is noteworthy for its commitment to alternative methods of distributing education and commitment to education for the masses, and grants opportunity to transform the lives of the disadvantaged in society by providing higher education through distance and open-university approaches to learning. Now with more than four million students, this institution continues to provide a rich environment for integrative learning research that sets standards for distance learning throughout India and beyond while simultaneously influencing change in traditional education.

Established in 1985, IGNOU an example of how one university brought change to national education by pioneering a radically different delivery system for education throughout the country and beyond in order to reach large numbers of students at all levels of society. It has evolved over time and occasionally come under criticism for administrative practices.

Serving as a change agent, the institution has nonetheless brought an inclusive knowledge culture into a highly diverse society through approaches that facilitate Integrated Learning. This was achieved by using multiple technologies for learning and infrastructure integration. As a result, the university serves and influences not only India, but 36 additional nations through centers and networks designed to bring transformation in education to differing populations. By providing high quality learning experiences through open and distance learning modalities and by setting the standards for open and distance learning throughout India, the university brings direct change by using education to transform the lives of its own students, as well as students at other institutions (IGNOU: 2013).

IGNOU is an institution that seeks to provide equalizing educational opportunities through its recruitment strategies, learning center locations, and pricing structures to bring education into an affordable and accessible option for diverse students throughout the region. As the work of IGNOU implies, democratization of knowledge demands intentional strategies to assure that education is affordable and accessible. Educational initiatives must harness ways to develop and deliver education through means and methods that are more efficient, yet still transformative. This requires more than governmental budget increases to maintain education. It requires education be supported through creative responses to the environment; by collaboration and support of private and public sectors; by assuring opportunities to gain knowledge, skills and competencies aligned with global sustainability and security; and through additional community and institutional collaborations along with technological innovations that bring more learning opportunities to more people in a timely manner.

Talal Abu-Ghazaleh University

Talal Abu-Ghazaleh University (TAGIUNI) located in Jordan is pioneering change in education within its region and beyond. It illustrates how change can be brought at the organizational level to reflect a shifting philosophy of educational endeavors that at its core can best implement the Integrated Learning vision. The university functions as a one-stop virtual portal to provide higher education through varying partner institutions to meet the many needs of contemporary learners. By partnering with existing educational institutions—private and public, religious and secular, the learners' needs are addressed from a diverse, holistic educational process. These needs range from career skills acquisition to refinement of the inner life of the learners so that they are transformed and empowered to become responsible global citizens. Of special note is TAGIUNI's agreement with the United Nations Institute for Training and Research (UNITAR), a ground breaking, strategic partnership that helps to facilitate flexible, high quality, education to public sector professionals in nations around the world (Abu-Ghazaleh 2013). This is an especially important innovation for helping to foster good governance in developing nations.

TAGIUNI's model recognizes technology as more than a distribution system for education. It serves as a knowledge and wisdom building hub. In its mission and vision, the university intentionally focuses on the role of technology to participate in and shape the learning process. The technology provides designated connecting points for those participating in the educational endeavors. It structures egalitarian relationship-building opportunities as students across cultures engage as equals while attaining a world-class education. Technology shapes the organizing and storing of information and knowledge, while it

directs multiple pathways and resources to support learning. Intentionally designed to facilitate partnerships, the university changes the traditional monolithic structure of institutions of higher learning. Its approach is closer to a federation model of organizing that requires partnering organizations to define and work together to achieve common missions and visions for transformative education. Partnerships are selected to support the needs of the learners, not to build the institution *per se*.

With TAGIUNI's diverse partnerships, expertise increases exponentially through the synergies of the multiple entities working together to attract students and research regionally and globally. Such expertise, when harnessed together, can create the next phase of knowledge societies in which learners move beyond knowledge to collective wisdom in responding to the constantly changing challenges of sustainability. In the clearest terms, TAGIUNI was born of change to help learners respond to these local and global changes, and as its president says, "We shall lead by change, manage by change, be ready to adapt by change, expect and look for change" (Abu-Ghazaleh, 2012b). This commitment to the realities of change as a core value within the organization will be reflected implicitly, if not always explicitly, within the Integrated Learning process. As a result, TAGIUNI learners will have capacity to be more readily adaptable and flexible as they respond to the continuous flux of change in global societies.

Comparing the Examples - Differing Approaches to Integrated Learning in the Digital Age

In their influential educational roles, each of these three universities serves as a change agent to promote Integrated Learning and each has a foot in modern and post-modern thinking, simultaneously. Each of the universities is in transition while leading transition. They are grounded in their regional contexts, responding deeply to the global need for sustainability and security. IGNOU pushes into frontiers of distribution of learning geographically and socially, while Stanford integrates learning to strengthen empirical research and development of leaders. TAGIUNI responds by establishing a strong network of educational institutions to provide an integrated approach for shared education under one umbrella.

To further their global reach in the creation of world-class graduates and leaders, the institutions are all engaged in computer-mediated distance learning. While IGNOU pioneered distance and computer-mediated learning in the mid-1980's and 1990's, Stanford's MOOC took computer-mediated learning to a new level, as the institution gained notoriety for their first MOOC, which was a non-standard online artificial intelligence course led by Sebastian Thrun and Peter Norvig that drew together 160,000 learners in 2011 (Lewin, 2012). TAGIUNI recognizes the symbiotic relationship that exists between education and technology, and describes itself as "a comprehensive online educational experience" by networking into its offerings comprehensive programs of instruction from throughout the globe.

In this regard, TAGIUNI is perhaps the most explicit in promoting education as a human right. Its founder declares, "Talal Abu-Ghazaleh University is the embodiment of my vision – that access to world-class education is a human right... we firmly believe that dignity and human rights stem from education; therefore, all of the programs offered by the University focus on self-improvement and recognition of achievement." (TAGIUNI: 2014) We also assess it to be the most promising approach to Integrated Learning, because its

transformative learning agenda redefines the locus of authority from external sources to within the individual. It transcends concepts such as poverty, not only by economic definitions, but also the poverty of ideas and poverty of spirit. The one who was isolated is now in community. This is the very nature of transformation—shaping identity and redefining self and community, locally and globally to assure a sustainable secure world. This is what TAGIUNI calls, the “democratization of education.” The TAGIUNI approach empowers the Integrated Learning process by developing within the learner a balance between autonomous self-interest and community. It is within this space, where the individual and community reside together, that the coherent weaving of values and direction can take place to create sustainability and global security.

Talal Abu-Ghazaleh (2012a) provides a quote that he attributes to Stanford President John Hennessey that reflects the above as he compares the latest wave of online learning to a tsunami, “A tsunami comes and remakes the coastline and changes things dramatically. It both destroys some things, but it also creates new things.” Education empowers individuals to participate in their society as citizens. In particular, civic education tends to emphasize shared history and values while imparting practical, problem-solving skills that nurture competence in addressing local, as well as global, concerns. TAGIUNI’s approach in helping to democratize collective wisdom across regional and global platforms could conceivably over time enable the emerging generation of social media savvy young people across the planet to transform the art of the possible in bottom-up sustainable development and global security, mobilizing them to be both responsible citizens and global partners in the development of a more sustainable world.

VI. A GLOBAL PARTNERSHIP: CROSS-BOUNDARY COLLABORATION IN THE KNOWLEDGE AGE?

Building a shared sense of community in the future may require nuanced strategies to identify and work with, rather than against, new sensitivities on a world-wide basis, and to exploit the global trend toward the devolution of hierarchical systems. New institutional approaches empowered by transformative models of learning may be required, and the entire fabric of international security relationships including the broad concepts of security and development may be altered. New learning communities such as that enabled by Talal Abu- Ghazaleh University point to the importance of the individual working collaboratively with others around the globe to learn and share with each other as they examine the complex problems of their regions and our world.

These learning communities draw upon the wisdom of the crowd and move the individual learner from the confines of one geographical context. It expands their voice, ideas, and identity into the global context. This type of globally integrated learning experience is in keeping with Yochai Benkler (2006), who suggests that a decrease in the authority, reach, and legitimacy of nation states to tackle the most serious security challenges highlights the need for “a practical diagnosis of opportunities, barriers, and strategies for achieving improvements in human freedom and development given the actual conditions of technology, economy, and politics (p. 21).” As scholars and practitioners consider the implications of increasingly open models of education, it may be worthwhile to consider Benkler’s observations concerning the social production process:

The actual practice of freedom we see emerging from the networked environment allows people to reach across boundaries, across space and political division. It allows people to solve problems together in new associations that are outside the boundaries of formal, legal-political association. In this fluid social economic environment, the individual's claims provide a moral anchor for considering the structures of power and opportunity, of freedom and well-being (p. 19).

Such convergence in education reflects the growing connectedness and self-awareness of a networked global society that has created a palpable expectation for what will be a new narrative establishing post-international, global relations; global change is the crucible from which a new understanding of the global community may emerge. Effective approaches in Integrated Learning help to provide new tools to support new institutional approaches in identifying and better managing emerging global risks. As aptly stated by Jan Aart Scholte (2001, p. 28), "Globalization shifts away from a focus on the state system to a multilayered complex of rulemaking and order creation where no location is sovereign."

At the same time, education for citizenship will need to change in keeping with the rising importance of global citizenship as an aspect of personal identity. One of the most important educational needs in support of global sustainability is the transformation of static educational systems. Education for sustainable development is necessarily an integrated and interdisciplinary approach to learning. We need to enter a great transition in education where the fundamentals - learning to read, count and write - also include learning the emotional intelligence skills needed to change the course of society, both locally and globally.

VII. CONCLUSION

Working toward global sustainability will encourage and require a re-thinking of local education initiatives everywhere in a way that leverages the positive aspects of globalization, and the notion of both local and global citizenship. While a substantial domestic investment is needed, every nation should encourage multiple levels of society to participate in global educational partnerships, establishing the institutional framework to allow a new generation – the diplomats, intellectuals, engineers, doctors, thinkers, and decision-makers of tomorrow – to maintain open channels of global interaction.

What must be addressed – and what sits at the heart of any global partnership for effective and influential education – are the solutions and opportunities for research and educational collaboration that these challenges present. Whether the traditional model or an Integrated Learning model, we must teach students how to cope with the actual challenges of life, both now and for the future. As Nelson Mandela is attributed to have said, "Education is the most powerful weapon which you can use to change the world." And for this we need teachers who are learners too, transforming their students and together transforming the world. From Plato and Confucius to Paulo Freire and John Dewey, global voices from the distant and more recent past all point toward the eternal need for holism in education. In their respective ways, Stanford University, Indira Gandhi National Open University, and

Talal Abu-Ghazaleh University are the new global models. They are leading the way in developing new paradigms of integrated learning for globally sustainable development, empowering individuals to be model local and global citizens, capitalizing upon the tools of the Digital Age.

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