

**Service-Learning 2.0 for the 21<sup>st</sup> Century:  
Towards A Holistic Model for Global Social Positive Change**

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**Abstract:**

**Purpose** – The purpose of this paper is to introduce service-learning 2.0 model based on four new paradigms in the global business landscape: connectivity, creativity, community, and complexity.

**Design/methodology/approach** – The paper reviews four paradigm shifts and their effects on service-learning practices and methodology: a) wikinomics and mass collaboration, b) collective intelligence and open innovation, c) appreciative inquiry and positive organizational scholarship, and d) self-organizing systems and the new sciences.

**Findings** – Service-learning 2.0 can be used to develop our students' 21<sup>st</sup> century thinking skills through applied community engagement projects, namely: a) interactivity and interconnectedness, b) innovation and insight, c) inspiration and intuition, d) integrative and interdisciplinary thinking.

**Practical implications** – Service-learning 2.0 principles and pedagogy can help students appreciate and prepare for increasing complexity and paradox of management and organizations in the light of global, social and organizational changes of the 21<sup>st</sup> century.

**Originality/value** – Service-learning 2.0 model represents the pedagogy, principles, and processes that are better suited to the global, technological, and social changes and challenges of the 21st century.

**Key words:** Service-learning, positive organizational scholarship, wikinomics, open innovation, collective intelligence, complexity

**Paper type:** Conceptual

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*“Never doubt that a small group of deeply committed citizens can change the world. Indeed, it is the only thing that ever has.”*

*Margaret Mead*

**21<sup>st</sup> century challenges and the rise of service-learning**

As we stand almost nine years into the twenty-first century, one thing is particularly evident: We are facing an unscripted future characterized by corporate megascandals, globalization, the rapid proliferation of technology, hyper-competition for resources and markets, diversity in the labor force, and the widening gap between developed and undeveloped regions (Wankel, 2008). The 21st century management context is ambiguous, complex, fast paced, non-linear, multicultural, and knowledge intensive (Waddock, 2007; Karakas, 2007) and there is increasing interdependence between people, organizations, and communities (Cox and Meda, 2004). The collapse of national economic boundaries, accelerated technological changes, workforce mobility, cultural diversity, and the increasing interdependence of human communities pose new challenges for leaders and organizations (Wankel, 2008). As such, the business world is surrounded by global scale complex problems such as global warming, post-modern terror, corporate scandals, pollution, and the divide between the rich and the poor (Karakas, 2006). Additionally, there has been a growing literature on ethical and moral challenges in organizations (Schroth & Elliot, 2002) due to the increasing number of ethical scandals and frauds in corporations (Turnipseed, 2002; Brytting and Trollestad, 2000). Similar ethical challenges are also manifested in the recent global

financial crisis or the subprime mortgage crisis (Greenhalgh, 2008) where uncontrolled greed resulted in a vicious cycle of the bubble in home prices, overextension of credits, foreclosures and bankruptcies, as well as a global credit crunch (Corkery and Hagerty, 2008; Shiller, 2008). A multitude of factors seem to exacerbate these organizational challenges, such as increased uncertainty and chaos in today's workplaces (Biberman and Whitty, 1997; Giacalone & Jurkiewicz, 2003), increasing stress and burnout of employees (Ashmos and Duchon, 2000), declining job satisfaction and commitment of employees (Giacalone and Jurkiewicz, 2003; Duxbury and Higgins, 2002) and increased unemployment and loss of jobs worldwide (Shiller, 2008). As they face more complexities, competition, and change than at any other time in history, our graduates that thrive in the new century will be those that learn new capabilities and perspectives suited to coping with this unscripted future. Accordingly, the old management models are giving way to innovative pedagogies such as service-eLearning (Dailey-Hebert, Donnelly-Sallee, and DiPadova-Stocks, 2008) to enable graduates to navigate in an unscripted future characterized by uncertainty, complexity, interdependency, globalization, and accelerated change.

There are shifts in management education that aim to prepare students for our unscripted future and help them address these global, social, and organizational challenges. Integrating service-learning into management teaching and courses requires a deeper paradigm shift for management education as shown in Table 1, a clear shift from the old model that has informed management education for most of the twentieth century. A major shift observed in management education is increasing focus on social responsibility and community wellbeing, evidenced by changes from "bottom line" focus to multiple and balanced scorecards of success (Kaplan and Norton, 1993), from an economic focus to a balance of profits, quality of life, spirituality, and social responsibility concerns (Walsh, Weber, and Margolis, 2003; DeFoore

and Renesch, 1995), from self-centeredness to interconnectedness (Capra, 1993; Rose, 1990), and from self-interest to service and stewardship (Block, 1993; Neck and Milliman, 1994). Accordingly, there has been a thriving management education literature on community issues (McCarthy and Tucker, 2002), caring and compassionate approaches to respond to social issues (Burton and Dunn, 2005), stakeholder engagement and sustainability (Collins and Kearins, 2007), and learning in community services (Bartel, Saavedra, and Dyne, 2001). All these factors have significantly contributed to the growth of the service-learning approach in management education (McCarthy and Tucker, 2002; Vega, 2007).

Service-learning is defined as a form of experiential education in which students participate in community service activities to apply and learn course concepts to develop an enhanced sense of civic responsibility (Bringle and Hatcher, 1995; Jacoby, 1996, Stanton et al., 1999). Similarly, Kenworthy-U'Ren, Taylor and Petri (2006) define service-learning as “the enrichment of specific learning goals through structured community service opportunities that respond to community-identified needs and opportunities” (p. 121). As a term service-learning was first coined in 1969 by members of Southern Regional Education Board who described it as the accomplishment of tasks that meet genuine human needs in combination with conscious educational growth (Stanton, Giles, and Cruz, 1999). We define service-learning as a triad system of experiential learning through community service projects based on the partnership among students, community organizations, and faculty members.

Empirical research has demonstrated a number of benefits of service-learning for students including the development of problem solving skills (Bonar et al., 1996; Brown, 2000), a deeper understanding of civic engagement, social responsibility, ethical awareness (Bonar et al. 1996; Astin and Sax, 1998; Stanton et al., 1999; Waddock and Post, 2000; Morgan and Streb, 2001; Salimbene et al., 2005), and the improvement of self efficacy and

managerial skills (Alt and Medrich, 1994; Kendrick, 1996; Flannery and Pragman, 2007). The local community also benefits from student engagement and service-learning projects in a number of ways, including the development of integral solutions to community problems (Valerius and Hamilton, 2001). Moreover, organizations benefit from students who bring their academic knowledge, experiential tacit knowledge, fresh insight and vision into the organizations (Peters et al., 2006). Although empirical research demonstrated the outcomes and benefits of service-learning, little research has been conducted on how service-learning pedagogies and methods can be used in the global context in the light of technological and social changes of the 21<sup>st</sup> century.

This paper will review four paradigm shifts and their effects on service-learning practices and methodology. Building on these changes, the paper aims to introduce the model of service-learning 2.0 based on four emergent innovations and paradigm shifts in the global business landscape (See Figure 1):

1. Wikinomics and Mass Collaboration, which focus on *connectivity* based on the principles of web 2.0, openness, sharing, and peering;
2. Collective Intelligence and Open Innovation, which focus on *creativity*, and build on the metaphor of the global brain;
3. Appreciative Inquiry and Positive Organizational Scholarship, which focus on *community*, inspiring hope and courage to create positive change in society and the world; and
4. Self-organizing Systems and the New Sciences, which focus on *complexity*, based on the concepts of chaos theory and emergence.

This paper builds on these emerging disciplines and concepts to come up with an integrative model of service-learning. We define Service-learning 2.0 as an upgraded model of

service-learning that focuses on the process of creating global social positive change based on these four areas of focus: connectivity, creativity, community, and complexity. Service-learning 2.0 model (See Figure 1) is intended to help students appreciate and prepare for increasing complexity and paradox of management and organizations in the light of global, social and organizational changes in the global landscape. More specifically, service-learning 2.0 model can be used to develop our students' 21<sup>st</sup> century thinking skills through applied community engagement projects. These 21<sup>st</sup> century thinking skills are (consecutively): a) interactivity and interconnectedness, b) innovation and insight, c) inspiration and intuition, d) integrative and interdisciplinary thinking (Figure 1 and Table 2).

### **Wikinomics and Mass Collaboration:**

The first paradigm shift is about the increasing centrality of collaboration across organizations in the global landscape. *Connectivity* designates the focus in this paradigm shift. This paradigm shift is best described in the path-breaking work of Tapscott and Williams (2006): Wikinomics. Wikinomics defines as the new art and science of collaboration (Tapscott and Williams, 2006) where billions of connected people collaborate and participate in innovation, wealth creation, and social development on the virtual global platform of the Internet. According to the authors, this participation “has reached a tipping point where new forms of mass collaboration are changing how goods and services are invented, produced, marketed, and distributed on a global basis” (p. 10). The Wikinomics book builds a Web 2.0 vision of the digital world based on the concepts of open source, social networking, crowd-sourcing, smart mobs, and crowd wisdom (Tapscott and Williams, 2006). Tapscott and Williams propose four key principles of mass collaboration: a) openness, b) peering, c) sharing, and d) acting globally. Companies such as Second Life, Twitter, Youtube, Craigslist,

Napster, Skype, Flickr, MySpace, Delicious, Facebook, and Blogger synthesize the emerging powers of web 2.0, wikinomics and mass collaboration. This paradigm shift is best described in the book of Tapscott and Williams (2006) as follows:

*“While hierarchies are not vanishing, profound changes in the nature of technology, demographics, and the global economy are giving rise to powerful new models of production based on community, collaboration, and self-organization rather than on hierarchy and control. Masses of people can participate in the economy like never before; creating TV news stories, sequencing the human genome, remixing their favourite music, designing software, finding a cure for disease, editing school texts, inventing new cosmetics, and even building motorcycles. Employees drive performance by collaborating with peers across organizational boundaries, creating what we call a “wiki workplace.” Customers become “prosumers” by co-creating goods and services rather than simply consuming the end product.” (p. 1-2).*

The basic technological and structural shift that underlies this paradigm shift and enables this level of collaboration is the emergence of *web 2.0*. After the dot-com crash of the early 2000s, the technology survivors have sought to refine and redefine the Internet experience, arriving upon a term called “web 2.0” referring to the new generation Internet tools. Web 2.0 denotes the application of interactive, collaborative, and multi-media web-based technologies to web-based services. This change toward read/write connective technologies has already dramatically changed the global education landscape, making it possible for students from all over the world to collaborate, interact, and participate in service-learning projects.

According to O’Reilly (2005), web 2.0 corresponds to the following principles: a) the web as a core platform for various services, b) the shift from application-centric to data-centric approaches, c) continuous revision and improvement of services and software, and d) rich user experiences. Moreover, O’Reilly (2005) notes the following core competencies of the Web 2.0

environment: a) services, not packaged software, b) an architecture of participation, c) cost-effective scalability, and d) harnessing collective intelligence. Accordingly, the web 2.0 platforms are socially rich, rich in content, egalitarian, user-centered, user-driven, participatory, dynamic, interactive, and communally innovative. They are the contexts for 21st century interactivity, participation, and social activity. Therefore, web 2.0 platforms provide the ultimate context and tools for service-learning projects to flourish and succeed. Web 2.0 tools such as Youtube, Facebook, and Blogger can be used to design and support creative service-learning projects that encourage our students to collaborate and participate in community service activities. Interactivity and interconnectedness are the 21<sup>st</sup> century thinking skills that can be developed by using the new principles in this paradigm. Table 2 outlines how wkinomics and mass collaboration principles can be incorporated into service-learning 2.0 pedagogy.

### **Collective Intelligence and Open Innovation:**

The second paradigm shift is about the increasing openness of innovation processes that transcend organizational boundaries in the global landscape. *Creativity* is important in this paradigm shift because it is the driving fuel of innovation processes in organizations. The old R&D models relied on hiring the brightest minds inside the company to drive new product development and kept the innovation processes proprietary (Chesbrough, 2003a). Several changes occurred that liberated innovation from the organizational boundaries and transformed it into an open, distributed, network-centered process (Dodgson, Gann, and Salter, 2006; Chesbrough, 2003a, 2003b; von Hippel, 2005). According to the 2007 IBM Global Innovation Outlook report, innovation processes have become multidisciplinary, collaborative, technologically complex, and global (Nambisan and Sawhney, 2007; IBM, 2007). The new

innovators operating on the web are called network idealists (Lowy, Hood & Singer, 2005) who develop organic, cellular, distributed network structures for innovation. In the globally connected and competitive business landscape, companies can no longer afford to rely entirely on their own employees' ideas for innovation, but leverage internal and external sources of ideas (Chesbrough, 2003; Lichtenthaler, and Holger, 2008). Organizations now reach out and connect with innovative ideas and talent beyond their own boundaries (Friedman, 2005; Rigby and Zook, 2002; Chesbrough, 2004). The "not invented here" syndrome is turning into the "get the best ideas and products wherever they are developed" attitude.

This paradigm shift refers to the new business models that companies adopt to harness collective intelligence of people outside their boundaries ("the global brain") to spur breakthrough innovation (Nambisan and Sawhney, 2007). This new model of innovation, which benefits from ideas coming from collaborators outside the boundaries of the firm, is called open innovation (Chesbrough, 2003, 2006; Rae, 2008). This shift is also referred to as the wisdom of the crowds (Libert and Spector 2008) or group genius (Sawyer, 2007). Similarly, Nambisan and Sawhney (2007) introduced the term "network-centered innovation" by applying a network-centric perspective to innovation. The huge success and speed of the Linux project and the open source software movement, continually upgraded by a globally networked community of software developers, illustrates the power and promise of open innovation (Nambisan and Sawhney, 2007). Open innovation is also widely used by social networking firms e.g. Facebook or Youtube; web 2.0 exemplars e.g. Wikipedia or Twitter; as well as industry giants such as Procter & Gamble. Instead of relying on internal R&D groups, these companies form trust-based long term relationships with external innovators and customers to build vibrant and innovative business ecosystems (Tapscott and Williams, 2006; Nambisan and Sawhney, 2007). They tap into the global brain and benefit from the global

talent pool (learning from the wisdom of crowds) to catalyze innovation and creativity in the digital ecosystem. Some of these firms also utilize “ideagoras” (online platforms for creative ideas and innovation) and “presumption” (allowing customers to hack, improve and upgrade their products) to speed up the innovation process (Tapscott and Williams, 2006). For example, P&G increased its R&D productivity by nearly 60% and doubled its innovation success rate using these approaches. A striking example illustrating the open innovation model is the case of InnoCentive, a global community of scientists from diverse disciplines and from 170 countries that helps companies find solutions to their R&D problems (Tapscott and Williams, 2006; Nambisan and Sawhney, 2007). These cases suggest the creative and collaborative power of global innovation networks (i.e. the global brain) can translate into radical improvements in innovation speed, cost, and quality (Nambisan and Sawhney, 2007).

Open innovation methods centered on creativity and integrative thinking are becoming increasingly important in the 21<sup>st</sup> century (Chesbrough, 2006) to find new ways to bridge some of the 21<sup>st</sup> century problems, wider global issues, social divides, and poverty gaps (Waddock, 2003). A large number of organizations (the “new Alexandrians”, as coined by Tapscott and Williams, 2006) build huge online repositories of collective knowledge and produce information to address some of these 21<sup>st</sup> century business, scientific, and social problems. Low-cost databases and communications networks allow decentralized decision-making and innovation processes, cross-disciplinary research and technological hybrids, as well as digital democracies to emerge and flourish (von Hippel, 2005; Tapscott and Williams, 2006; Nambisan and Sawhney, 2007). These shifts have implications for service-learning instructors as they can design unique learning experiences for students by utilizing their collective intelligence and enabling them to access global networks of learning and innovation. 21<sup>st</sup> century service-learning projects, therefore, can be designed as living experiments of

continuous learning, creative thinking, collective visioning, open innovating, and collaborative working. In summary, this paradigm shift illustrates how organizations, leaders, and management instructors can harness collective intelligence and genius to catalyze innovation, learning, and positive change. Innovative thinking and insight are the 21<sup>st</sup> century thinking skills that can be developed by using the new principles in this paradigm. Table 2 outlines how open innovation and collective intelligence principles can be incorporated into service-learning 2.0 pedagogy.

### **Appreciative Inquiry and Positive Organizational Scholarship:**

The third paradigm shift is about the increasing centrality and popularity of positive discourses and approaches in organizational sciences and human systems. *Community* designates the focus in this paradigm shift, as positive approaches aim to create positive change in communities. This paradigm shift embodies the overall shift from problem-based approaches to “positive” or “strength-based” approaches in improving human systems and communities. Strength-based approaches seem to be at the forefront of social sciences and have gained popularity among researchers in the last decade. According to these approaches, “positive affect”, “social bonding”, and asking positive questions help to create sustainable change and momentum in human systems and organizations. Based on recent research on positive emotions (Fredrickson, 2003), positivity emphasizes the centrality of positive sentiments like hope, inspiration, and joy as central elements to the change processes in human systems (Ludema et al., 1997; Cooperrider and Whitney, 2005). The leading strength based disciplines are *appreciative inquiry* (Cooperrider and Srisatva, 1987; Cooperrider and Whitney, 2000), the main strength-based methodology of change in organizational development; *positive psychology* (Seligman and Csikszentmihalyi, 2000; Snyder and Lopez, 2002), the original

discipline and movement that provided inspiration for positive scholarship; *positive organizational behavior* (Luthans, 2002a; 2002b); the strength based approach focusing on micro-level behavioral capacities; and *positive organizational scholarship* (Cameron, Dutton, and Quinn, 2003; Cameron and Caza, 2004), the positive movement in organizational sciences.

Appreciative inquiry suggests looking at organizations not as problems, but as opportunities and positive forces (Cooperrider, 1995). Appreciative inquiry involves “the art and practice of asking questions that strengthen a system’s capacity to apprehend, anticipate, and heighten positive potential” (Cooperrider and Whitney, 1998, p. 6). Accordingly, appreciative inquiry aims to prevent conflict and resistance to change efforts (Barron and Moore, 1999, Egan and Lancaster, 2005). Cooperrider and Whitney (2000) describe the mission and function of appreciative inquiry as follows:

“AI seeks, fundamentally, to build a constructive union between a whole people and the massive entirety of what people talk about as past and present capacities: *achievements, assets, unexplored potentials, innovations, strengths, elevated thoughts, opportunities, benchmarks, high point moments, lived values, traditions, strategic competencies, stories, expressions of wisdom, insights into the deeper corporate spirit or soul-- and visions of valued and possible futures*. Taking all of these together as a gestalt, AI deliberately, in everything it does, seeks to work from accounts of this “positive change core” - and it assumes that every living system has many untapped and rich and inspiring accounts of the positive. Link the energy of this core directly to any change agenda and changes never thought possible are suddenly and democratically mobilized.”(p. 6, Cooperrider and Whitney, 2000).

The second major strength-based movement is positive organizational scholarship (POS) which focuses on the best of the human condition, positive deviance, flourishing, and

vitality in organizations (Cameron, Dutton and Quinn, 2003). Positive organizational scholarship (POS) is an exciting strength-based movement that builds on the cutting-edge work in the fields of positive psychology, organizational sciences and social sciences (Cameron and Caza, 2004). POS as a field is not based on a single theory, but rather is an umbrella of diverse set of theories and topics (Cameron, Bright and Caza, 2004). POS draws from a wide spectrum of theories to understand, explain, and create high performance in organizations (Cameron and Caza, 2004). POS constitutes a wide collection of loosely related themes and constructs including virtuousness, resilience, authentic leadership, meaningfulness, and empowerment (Cameron et. al. 2003). The common thread in all these themes is to improve the human condition by enabling and empowering the human potential of employees. Therefore, the aim of POS is to utilize a broad spectrum of theories and concepts to explain and enable top performance, excellence, and vitality in organizations (Cameron and Caza, 2004). This paradigm shift has implications for service-learning instructors who want to inspire their students by giving them hope and courage. POS can be used to discover students' passions and core competences to develop unique strengths based on them. Integrating POS elements into service-learning pedagogies can unlock the positive and generative dynamics inherent in our students. Our students can cultivate and sustain vibrant learning communities if we set a positive learning context for them. In such contexts, students can build their own strengths as well as those of their communities through service-learning projects. Activating these positive dynamics depends on inspiring and empowering students for community service. Inspiration and intuition are the 21<sup>st</sup> century thinking skills that can be developed by using the new principles in this paradigm. Table 2 outlines how POS and appreciative inquiry principles can be incorporated into service-learning 2.0 approach.

### **Self-Organizing Systems and the New Sciences:**

The fourth paradigm shift is about the increasing need for the new sciences of complexity and integrative thinking in management theories and practices. *Complexity* best describes the focus in the new paradigm. This paradigm shift signifies increasing complexity in management practices and research indicated by changes from predictability to chaos (Gleick, 1987), from simplicity to complexity (Lewin, 1992), from top-down control to self-organization (Kauffman, 1995), from closed systems to complex adaptive systems (Dooley, 1997), from Newtonian thinking to the new sciences of quantum physics, self-organizing systems, and chaos (Wheatley, 1994), and from mechanistic thinking to interconnected thinking based on quantum physics, cybernetics, and cognitive science (Rose, 1990). As a result of the radical developments in complexity theory, quantum physics and chaos theory; there has been a paradigm shift from a machine-based clockwork conception of the universe to a complex adaptive living system perspective (Wheatley, 1994). Chaos theory analyzes nonlinear dynamic models that elucidate irregular and unpredictable behavior and aims to reveal structure in unpredictable dynamic systems (Begun, 1994). Chaos theory and complexity sciences provide insights into the nature of complex adaptive systems and non-linear relationships in these systems to provide holistic explanations of phenomena (Begun, 1994).

In line with these new sciences of complexity, business leaders today need to develop a new level of awareness and adaptiveness to operate constantly in flux, with the rapid pace of technological innovations, globalization, financial shifts, reengineering, mergers and acquisitions (Waddock, 2007). To cope with this complexity, organizations are also trying to change, adapt, and become self-organized dynamic systems (Karakas, 2007); focusing on strategies of empowerment (Byman, 1991; Conger and Kanungo, 1988, Rose, 1990) to enable and increase employee participation (Hyman and Mason, 1995; Cotton, 1993). Moreover,

innovative organizations have been trying to introduce new adaptive ways of organizing and work, such as building connections through networked organizations (Sproull and Kiesler, 1993), utilizing swarm intelligence (Bonabeau and Meyer, 2001) or creating collective intelligence in knowledge work teams (Fisher and Fisher, 1998). Recent research in psychology, biology, and neurophysiology suggests that human beings are, indeed, quantum beings (Shelton and Darling, 2001). The holistic and quantum approaches to management suggest that it is good for managers and employees to bring their whole persons to work, their bodies, minds and spirits (Daft and Lengel, 2000). In response to the paradigm shift of “the new sciences”, management education scholars have written on integrating complexity sciences (Axley and McMahon, 2006; Fairholm, 2004), paradoxical thinking (Lewis and Dehler, 2000), and interdisciplinary perspectives (Ducoffe, Tromley, and Tucker, 2006) into the management curriculum and instructional methods. The dominant paradigm of education has been shifting from utilizing static, repetitive, predictable, clockwork, and linear models toward using fluid, organic, dynamic and biological models (Waddock, 2007). According to this shift, the brain is no longer viewed as a computer to be programmed, but as a living, dynamic and self-adjusting neural network. Moreover, learning is no longer a passive knowledge accumulation process; instead it is described as an active, dynamic, messy and emergent process of pattern formulation and meaning construction in the new paradigm. These shifts have implications for designing integrative service-learning experiences for our students. Integrative and interdisciplinary thinking are the 21<sup>st</sup> century thinking skills that we can develop in our students using the new principles in this paradigm. Table 2 outlines how the principles of self-organizing systems and new sciences can be incorporated into service-learning 2.0 approach.

### **Service-learning 2.0: Pedagogy, Principles, and Process**

Service-learning 2.0 model focuses on the process of creating global social positive change based on four paradigm shifts: a) Wikinomics and mass collaboration, b) open innovation and collective intelligence, c) positive organizational scholarship and appreciative inquiry, and d) self-organizing systems and the new sciences. Service-learning 2.0 is centered on the new paradigms of connectivity, creativity, community, and complexity. Service-learning 2.0 model represents the pedagogy, principles, and processes that are better suited to the global, technological, and social changes and challenges of the 21<sup>st</sup> century. Service-learning 2.0 model contributes to the development of 21<sup>st</sup> century thinking skills: a) interactivity and interconnectedness, b) innovation and insight, c) inspiration and intuition, and d) integrative and interdisciplinary thinking.

Based on the four paradigm shifts presented above, we have designed customized service-learning experiences and projects for our students at McGill University, Canada; and Bogazici University, Turkey. Four undergraduate elective courses on leadership and organizational behavior have been offered in these universities between 2006 and 2008, each with a significant service-learning focus and component. Table 2 outlines the details of the implementation of these service-learning projects. The service-learning projects have turned out to be transformational, positive, and enriching experiences as well as a collective journey of learning and growth for both the students and the instructors.

In their service-learning projects, students have reflected on world problems, human and organization dimensions of global problems and positive change as well as how they can contribute to the world around them using service-learning principles and methods. Students have chosen and created their own customized project based on their strengths, dreams and passion. Some of the problems student consultants have tackled include religious intolerance, racism, violence, ignorance, poverty, global warming, pollution, corruption, and terror. They

have reflected on themselves, their social responsibility, their strengths and passion, and their role in the global world to achieve and sustain positive change. Most of these projects have been social innovation projects which have the potential to make positive impacts on lives and wellbeing of people. In their project, teams of student consultants have had the chance to apply the tools, concepts, theories, approaches they have learned in the course. Here are the titles of some of these “legacy” projects:

- My Contribution to Urban Development in Argentina
- Fighting Childhood Obesity in USA
- Hoping for a World of Peace thorough a Book Proposal: Humane
- World Link: Educating Nigeria into Development
- Examining the Crisis of AIDS in South Africa
- A Step Towards the Eradication of Religious Intolerance in the Middle East
- Reality TV- An Original Way to Help Global Warming
- International Education Giveaway Program Proposal in South Korea
- Reducing Pollution in Bangladesh
- The Cry for a New Health Care Approach in China
- “First Step” Program for Immigrants in Canada
- My Butterfly Effect in Japan

Throughout these courses, 90 students came up with 90 service-learning projects that were designed and applied in 32 different countries. During these service-learning projects, we have utilized POS principles and appreciative inquiry methods to develop student strengths, as shown in Table 2. As instructors, we have tried to be supportive, helpful, encouraging, and inspiring to enable a positive atmosphere for our students to succeed and contribute to their communities. Our objective has been to find, reveal and develop “the best, the most positive,

and the most creative” in our students. Our experiences have shown us that it makes so great difference to really care about students, to meet with each of them individually, and to build a lifetime relationship and deep connection with them. This is not a matter of theory, method or science. This is about love, authenticity, connection, and passion. How to do this is so simple, yet deep: We simply love our students. We care so much about them and they feel it. This makes such a huge difference beyond words. It is unbelievable how students become so much more engaged and perform so much better to contribute to their communities. It is critical to know each of our students deeply, to know about their past, their family, their values, their passions, their career plans, and their dreams. We try to do this in the first week by the first project: “Career Portfolio for Your Dream Job”. In this project, students prepare a detailed portfolio to apply to their “dream job” after graduation; including an updated CV, personal form, a cover letter, self-reflection and future personal plans. They reflect on their strengths, values, hopes, goals, and dreams. We go over all these portfolios in the weekend and we conduct interviews with each of our students during the second week. We discuss their career plans, passions, and strengths as well as how we can make this course and course projects most useful for them. Our objective is to inspire students by discovering their strengths and passions and building on them. Sharing our own enthusiasm and passions (free of fear and stress) encouraged students to do the same.

The courses have widely utilized web 2.0 tools and mass collaboration to support these service-learning projects. Special class blogs have been created and used as our collective journal and collaborative innovative platform, such as: “Global Leadership: Perspectives and Projects of McGill students on World Benefit and Global Responsibility.” Students have acted as contributors and visionaries who created knowledge to better help their communities.

Before our students have begun their field work, they have practiced their creative writing and integrative thinking skills. We have first conducted a series of intensive brainstorming sessions on the 21st century where students reflected on global changes and trends in the 21st century. The objective has been to provide them a glimpse of the global uncertainty, chaos, innovation, change, dynamism, flux, speed, and complexity in human systems and world societies. Together as a class, we have formulated a list of top 100 concepts for managers and professionals to enable them to better understand and prepare for the 21st century. Using open innovation and integrative thinking principles, we have written a book with our students, called “100 Concepts for the 21st Century”. We imagined that we would collectively write a book for managers and leaders who will operate in the global world in the 21st century. The result has been an innovative, holistic, comprehensive, visionary, futuristic and trans-disciplinary list of new concepts related to management, organizations, business, economics, society, science, technology, innovation, arts, politics, and the global agenda. In this project, students appreciated and addressed various complexity challenges inherent in the global world of the 21<sup>st</sup> century. The book has been an outline of new trends, creative terminology, innovative developments, fresh perspectives, new values, principles, practices, or domains critical for the 21st century leader. There are 100 short chapters in the book including social innovation, global corporate citizenship, appreciative inquiry, service-learning, complexity sciences, web 2.0/web 3.0, quantum physics, and nano-bio convergence. The process of writing the book has been built on the principles of wkinomics, mass collaboration, open innovation, and collective intelligence. Our students have used this book in their service-learning projects during human system interventions. Table 2 outlines the service-learning 2.0 pedagogical model and its links with four paradigm shifts. The principles, pedagogy, and process of service-learning 2.0 model are described in detail.

## Discussion

The world we face tomorrow with all its complexities, dilemmas, and inequities demands a different set of skills than the more linear, analytic, problem-solving skills that were adequate in past eras. Our world is struggling with a myriad of complex social, economic, political, ethical problems. Humanity and world civilizations today experience problems not only in economic, political or material domains; but also in ethical, moral, social, or spiritual realms. Moreover, world societies are experiencing the globalization of the planet; and understanding the increased interdependency between individuals, organizations, communities, nations, and the biosphere. Worldwide, societies are crying for assistance in the transformation of their citizens, organizations, governments, businesses, and NGOs. The world needs responsible leaders capable of integrating its complexity, seeing the linkages and interconnectedness that exists among the peoples, ecosystems, and societies of the world, and understanding the long-term consequences of their decisions. Accordingly, linear and traditional management education methods are being replaced with more innovative, dynamic, systemic and collaborative pedagogies, such as service-learning, to create positive change in communities and in our students. Service-learning 2.0 model urges that we replace the prevalent mechanistic, materialist; profit oriented, and function based management education paradigm with an integrated and dynamic vision of a sustainable learning community that reflects universal human values and global consciousness.

This paper presented four paradigm shifts for management instructors that will increase intellectual, social and emotional engagement of our students. The proposed service-learning 2.0 model aims to foster collaborative and dynamic approaches to learning, and enables students to develop integrative ways of knowing. In the evaluation of service-learning projects, we need integrative and multidimensional performance outcome measures like

fulfillment, legacy, sustainability, collaboration, wellbeing, virtuousness, community service, benevolence, and equity. Service-learning is about having a positive impact on the lives of our students and our communities, as well as sharing our enthusiasm and passion to do so. The new paradigms in this paper represent not only a shift of perception but also a shift of values and deeper consciousness. Service-learning 2.0 model considers intuitive, systemic, and nonlinear ways of knowing, feeling and doing; as well as the changes represented by connectivity, creativity, community, and complexity.

This paper has a number of implications for service-learning instructors: To enable service-learning 2.0 contexts; instructors should focus on creating sustainable learning communities and inspirational learning contexts in organizations for the 21st century. Service-learning 2.0 contexts in organizations are: highly personalized and coherent, internally and externally networked; not bounded by physical or temporal space, rich in learning experiences for students and community members, tapping into diverse talents of students, flexible for experimentation and open to innovation, self-organized around core principles and beliefs, interconnected and collaborative (fostering university-community linkages), implemented around a mutually created vision, flowing easily and dynamically with ambiguity and paradox, trusting and playful for learners; full of wonderment, joy, meaningfulness, vitality, creativity, and positive energy.

Some of the questions that instructors should ask themselves to reflect on their service-learning pedagogies include: How does service-learning inspire me? What is the deeper meaning of this work for my students and the communities we serve? What is my inner landscape as an instructor using service-learning? How can I inspire my students and help them incorporate their own values into their work? How do I engage not only the minds of my students but also their hearts and spirits? How can I have a positive impact in the lives of my

students and the community members? How can I enable my students to see the bigger picture? How can I design integrative and cross-disciplinary solutions to the systemic problems here?

This paper has been an initial exploration towards a relatively untapped model in service-learning which can potentially offer enormous positive change in the lives of our students and our communities. Offering courses based on the new service-learning philosophy and seeing the potential benefits of inspiring our students and creating real rapport with them changed our whole lives, how we see my career journey as well as where we see promise in management education. Service-learning 2.0 practices have awakened us to the transformative potential and deep positive change we can lead in our lives, in our communities and in the lives of our students. Through service-learning projects, our students can develop the values, perspectives, and capabilities that will enable them to contribute to their communities in innovative ways. Service-learning 2.0 may have profound impacts on how we prepare our graduates for the global social challenges of the 21st century.

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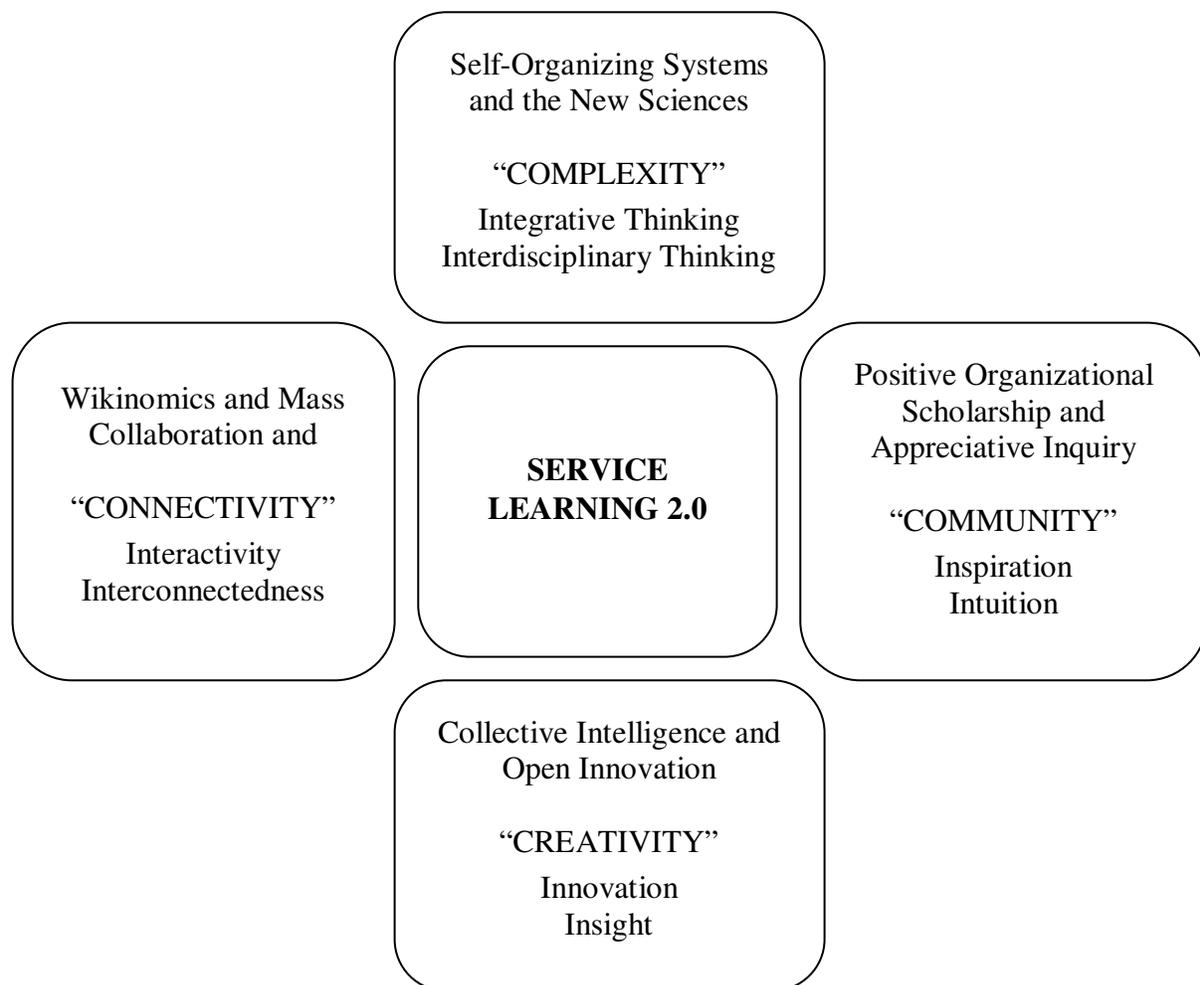
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**FIGURE 1:**

**SERVICE-LEARNING 2.0 MODEL**



**TABLE 1: CHANGING PARADIGMS OF MANAGEMENT EDUCATION**

<b>OLD PARADIGM</b>	<b>NEW PARADIGM</b>
<p><b>ENTERPRISE 1.0</b></p> <ul style="list-style-type: none"> <li>• mass customization</li> <li>• traditional supply chains</li> </ul>	<p><b>ENTERPRISE 2.0</b></p> <ul style="list-style-type: none"> <li>• mass collaboration, wikinomics</li> <li>• global value and innovation networks</li> </ul>
<p><b>PROPRIETARY R&amp;D</b></p> <ul style="list-style-type: none"> <li>• secrecy in innovation strategies</li> <li>• proprietary intellectual property</li> </ul>	<p><b>OPEN INNOVATION</b></p> <ul style="list-style-type: none"> <li>• open innovation</li> <li>• collective intelligence, global brain</li> </ul>
<p><b>PROBLEM BASED APPROACH</b></p> <ul style="list-style-type: none"> <li>• focus on problem solving</li> <li>• doubt and fear</li> </ul>	<p><b>POSITIVE APPROACH</b></p> <ul style="list-style-type: none"> <li>• focus on human strengths</li> <li>• trust, hope and inspiration</li> </ul>
<p><b>OLD SCIENCES</b></p> <ul style="list-style-type: none"> <li>• Newtonian</li> <li>• Linear, one truth</li> </ul>	<p><b>NEW SCIENCES</b></p> <ul style="list-style-type: none"> <li>• Quantum</li> <li>• Nonlinear, multiple truths</li> </ul>
<p><b>PROFIT ORIENTATION</b></p> <ul style="list-style-type: none"> <li>• competition</li> <li>• economic, short term, profit oriented</li> </ul>	<p><b>MULTIPLE ORIENTATIONS</b></p> <ul style="list-style-type: none"> <li>• cooperation</li> <li>• long term, triple bottom-line</li> </ul>
<p><b>CERTAINTY</b></p> <ul style="list-style-type: none"> <li>• operating in clarity and order</li> <li>• hierarchies, stability, status quo</li> </ul>	<p><b>UNCERTAINTY</b></p> <ul style="list-style-type: none"> <li>• embracing ambiguity and chaos</li> <li>• lateral networks, adaptability, change</li> </ul>
<p><b>ANALYTICAL THINKING</b></p> <ul style="list-style-type: none"> <li>• atomistic and exclusionary</li> <li>• specialization, analysis</li> </ul>	<p><b>INTEGRATIVE THINKING</b></p> <ul style="list-style-type: none"> <li>• holistic and synergistic</li> <li>• cross-disciplinary tasks</li> </ul>
<p><b>LOCAL</b></p> <ul style="list-style-type: none"> <li>• ethnocentric</li> <li>• local access and communication</li> </ul>	<p><b>GLOBAL</b></p> <ul style="list-style-type: none"> <li>• cross-culturally sensitive</li> <li>• global access and truly global mindset</li> </ul>

**TABLE 2: FOUR PARADIGM SHIFTS AND SERVICE-LEARNING 2.0 MODEL**

**SERVICE-LEARNING 2.0: PEDAGOGY, PRINCIPLES, AND PROCESS**

1. Paradigm Shift: Wikinomics and Mass Collaboration:

This new paradigm is centered on *Connectivity*

Relevant 21<sup>st</sup> century thinking skills developed: *Interactivity and Interconnectedness*

- Blogs are used as open platforms of collaboration between university & community members
- Students collaborate and co-create their SL projects using wikis
- Students give each other feedback and suggestions using web 2.0 tools
- Students, instructor, and community stakeholders use social networking sites to communicate on the SL project in a timely manner
- Consulting teams upload their project videos to online video sharing sites, e.g. Youtube
- Students use various web 2.0 sites to develop their SL project at: [www.web20links.net/](http://www.web20links.net/)
- Students use TakingITGlobal platform to create and disseminate their community action projects, be part of the global network, and collaborate with peers to change the world

2. Paradigm Shift: Open Innovation and Collective Intelligence:

This new paradigm is centered on *Creativity*

Relevant 21<sup>st</sup> century thinking skills developed: *Innovation and Insight*

- Student consulting teams harness collective intelligence to design and develop their service-learning projects
- Student teams tap into the global brain and use best examples/success cases of community initiatives to create social innovation
- Community leaders share their expertise in class as guest speakers
- Student teams create and develop SL projects building on each other's work
- Student consultants, community volunteers and executives create solutions and develop strategies together for the social problem
- Students co-author project reports using Office 2.0 tools
- Instructor and community representatives give feedback and suggestions to improve SL reports and final presentations are done with the presence of community representatives
- Completed projects, cases, results are published / disseminated on blogs & portals

### 3. Paradigm Shift: Positive Organizational Scholarship and Appreciative Inquiry

This new paradigm is centered on *Community*

Relevant 21<sup>st</sup> century thinking skills developed: *Inspiration and Intuition*

- Instructor discovers unique strengths of each student using personal assessments and surveys
- Instructor meets each student to talk on each student's best reflected self portraits and dreams
- Instructor inspires hope and courage through team mentoring and coaching
- Students build on their strengths, passions, capacities and goals in their SL projects
- Instructor and students meet periodically to dream and design SL projects
- Instructor and students use appreciative inquiry principles in developing SL projects
- Student consulting teams aim to create contexts that build human strengths and unlock positive and generative dynamics of human communities
- Instructor provides customized constructive feedback for the SL projects
- Instructor fosters a positive atmosphere based on trust, respect, and high quality connections

### 4. Paradigm Shift: Self-organizing Systems and the New Sciences

This new paradigm is centered on *Complexity*.

Relevant 21<sup>st</sup> century thinking skills developed: *Integrative & Interdisciplinary Thinking*

- Student consultants develop integrative thinking skills when they organize multifaceted and multilevel SL projects
- Students appreciate and prepare for complexity and paradox in the real-life SL projects
- Students synthesize information from a variety of sources to better assess the big picture in human systems by improving holistic thinking
- Students develop generalist thinking and research skills to consult on a diverse set of issues spanning functional areas
- Students integrate and apply interdisciplinary and cross-functional knowledge in the real world SL projects
- Instructor incorporates complexity and chaos elements into the design and flow of the course
- Students develop tolerance for ambiguity and chaos to have an impact in the real world and wider society
- As students are provided total flexibility and they are empowered; self-organization and emergence dynamics occur in teams