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“To see differently in this way for once, to want to see differently, is no small discipline”

## Born from the Rubble:

### The Origins of Service-Learning in New Zealand and an Expansion of the Diffusion of Innovation Curve

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#### *Abstract*

IT CAN BE DIFFICULT TO IDENTIFY THE REASONS FOR AN IDEA'S BIRTH, DEVELOPMENT, AND ACCEPTANCE. It is particularly difficult to do this in the field of education where, like many fields, accepted ideas have come from an apparently non-traceable mix of practice, theory, and research. The 2010 and 2011 earthquakes in Christchurch, New Zealand were deadly and devastating but have also provided an opportunity to observe the life cycle of ideas about recovery and rebuilding. The observations of one particular idea, service-learning, have led to a significant theoretical expansion of Everett Rogers's Diffusion of Innovation curve (1962) that is transferable to other contexts. Through a case study of a university in the middle of the earthquakes, it is established that Rogers's curve consists of three components (people, context, and the idea), which can be understood and utilized in the progression of other ideas.

#### *Introduction*

WHILE A CONSIDERATION OF THE ORIGINS OF AN IDEA IN ITS PUREST, ORIGINAL STATE IS ENTICING, IT IS ALSO often elusive because of the non-traceable mix of practice, theory, and research that led to its acceptance. Perhaps, though, a more useful and transferable exercise is to determine what led to the idea's progress from birth to acceptance and see if there is a discernible formula or recipe. Again, however, the cloudy crucible of an idea's development makes this difficult as it is rare to start with a clean slate. Just this type of slate has been provided in Christchurch, New Zealand.

This city of 400,000 was devastated in 2010 and 2011 through the course of 10,000 earthquakes with four at 6.0 magnitude or higher. Amidst the death (over 200 people), destruction (nearly 5,000 homes and the entire downtown), and disruption (significant transience), there is literally a clean slate upon which to recover and rebuild. As with the rebuild process that has occurred after other disasters (e.g., post-1989 San Francisco and post-Katrina New Orleans), there is an opportunity in Christchurch to observe how ideas related to the recovery develop and progress, or not, from origin to acceptance. In a sense, there is a "page zero" upon which to record and analyze the history of new ideas. This paper will use Everett Rogers's Diffusion of Innovation curve (1962) to track one post-earthquake idea, service-learning at the University of Canterbury (UC), and attribute its birth, growth, and acceptance to the alternating components of people, ideas, and context. To clearly portray service-learning's development at UC and the role of these components within Rogers's curve, a "flashback" approach will be used whereby the end of the story (as of February 2012) will be the beginning.

#### *Service-Learning's Acceptance*

IT HAS BEEN NOTED BY SCHOLARS ON DISASTER RESPONSE (E.G., KLEIN, 2008; ROBINSON, 2012) THAT OFTEN times crises play into the hands of institutional administrators by allowing them to enact policies and strategies that would otherwise not be possible. This was not the case with the development of service-learning into an institutional strategy at UC as illustrated in the following reverse timeline (Table 1). It is important to note this before describing Rogers's curve because the timeline provides the essential evidence that what has occurred at UC regarding service-learning requires the further development of the curve to explain why and how ideas move through it and is not explained by an existing institutional desire to develop service-learning before the earthquakes.

Table 1.

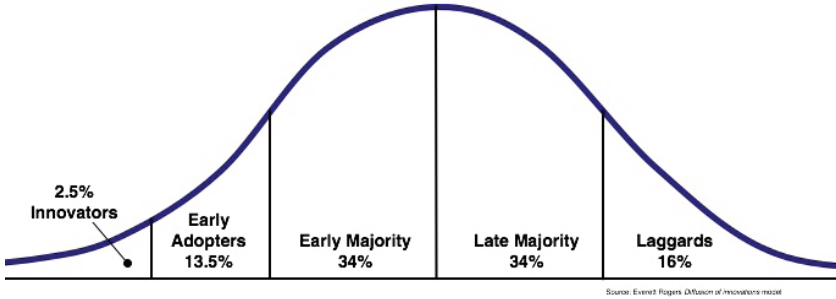
Timeline of significant milestones for service-learning at UC.

<b>Date</b>	<b>Significant Milestone</b>
January 2012	222 <sup>nd</sup> UC student completes CHCH101: Rebuilding Christchurch, the only explicit service-learning course in New Zealand and one that must be taken as an overload because it does not fulfill any degree requirements (yet).
December 2011	UC Vice Chancellor Dr. Rod Carr states, “I believe there are four components that will make a University of Canterbury graduate stand out from the crowd. ... thirdly, they should all have the opportunity for a community engagement experience alongside their academic programme” (Carr, 2011).
September 2011	New Zealand Prime Minister John Key presents inaugural UC Community Engagement Awards to leaders of the Student Volunteer Army.
August 2011	UC Recovery Plan states: “Expand the service-learning offering to existing and new students and as a differentiator among New Zealand universities” (p. 20).
July 2011	CHCH101 is offered for the first time.
April 2011	UC Academic Board approves for CHCH101 to be offered as a course in Semester 2 (July).
February 2011	Magnitude 6.4 earthquake hits Christchurch at 12:51 PM. Nearly 200 deaths and the destruction of 5,000 homes, and the entire downtown are attributed to it. Several thousand members of the Student Volunteer Army help with relief efforts. UC is closed for three weeks. Teaching resumes in large tents.
September 2010	Magnitude 7.1 earthquake hits Christchurch at 4:54 AM. No deaths, but significant damage due to liquefaction are attributed to it. Several thousand members of the Student Volunteer Army help with relief efforts. UC is closed for two weeks. All buildings reopen.
2009-2011	Ph.D. student Lane Perry conducts research on two UC courses that use community projects as part of their curricula.

Figure 1

The Life Cycle of an Idea According to Rogers

Rogers's Diffusion of Innovation curve.



While Everett Rogers's (1962) Diffusion of Innovation curve above provides a remarkably accurate and quantifiable view of how an innovation is taken up by innovators, early adopters, and the early and late majorities, it does not provide the contextual intricacies of how and why this happens. The ubiquitous presence of Google, iPods, and YouTube is indisputable and their progression from a nascent idea to an ingrained institution tracks along Rogers's curve, but how and why did those innovations move through the curve? More precisely, what were the contextual details at each point in the curve that moved those innovations from birth to acceptance?

In *The Tipping Point*, social psychologist Malcolm Gladwell (2000) attempted to describe these threshold moments, or tipping points, by determining how and why they happen. He does a convincing job of explaining Rogers's curve in qualitative case studies of a variety of cultural and sociological phenomena. The basic premise of his work hinges upon the importance of certain people who are well placed to be "connectors" to many other people and networks in sharing and promoting ideas. This was largely based on Stanley Milgram's (1967) "Small World Problem" where everyone is only six introductions, or degrees, away from each other.

Within Rogers's, Milgram's, and Gladwell's propositions about an idea's birth, diffusion, and eventual acceptance is an emphasis more on the messenger than the message with a suggestion that there can be a division between the two. The focus of their considerations is mainly on the people and less on the context in which that idea was developed and promoted. However, history in the form of Einstein, Jefferson, and Hitler shows that the message and messenger are more often intertwined to a degree where it is impossible to separate one from the other. The contextual ground of where Jefferson's and Hitler's ideas were born has been well trod enough to suffice it to say that both men's ideas came from where they did. In other words, the origins of their ideas were bound to distinct historical and local contexts. Similarly, in his historical novel about the origins of Einstein's theories, *Einstein's Dreams* (1993), physicist Alan Lightman uses the known circumstances of Einstein as a young man working in Berne, Switzerland at the turn of the 20<sup>th</sup> century and conjectures that his later ideas about quantum physics were intricately linked to his early context. With all three influential thinkers, it is clear that their ideas were not created in a vacuum and were, instead, dependent on their contexts.

It is the suggestion of this paper that people, ideas, and context are three alternating components whose influence will vary depending upon the stage of the idea's development. In that way, the additions made to Rogers's Diffusion of Innovation curve through the case study of service-learning at UC represent a significant theoretical contribution to the life cycle of an idea.

*Tracing the Idea of Service-learning*

IN THE FIELD OF EDUCATION, THE NOTION OF BEING ABLE TO TRACE A PEDAGOGICAL APPROACH BACK TO ITS birth and origin is often readily dismissed with a default being that all roads lead back to Socrates, Plato, and Aristotle, and, therefore, there really is nothing innovative in teaching approaches. If atmospheric are any indication about how little education has changed in thousands of years, one only need to compare sketches of the medieval universities in Europe with lecture halls in contemporary universities, dare say reports of actual teaching approaches. Thus, even the radical approach of Jefferson's Academical Village whereby students and teachers would learn alongside each other and not just in four-walled classrooms can be quite easily traced back to Aristotle's peripatetic approach of teaching his students while walking alongside them in a garden setting. So, regardless of the multiple, fine-grained ideas that educational researchers have developed within their field, their birth and origins are difficult to differentiate past the ancient Greeks. This can pose a challenge for the field of education in that there is a long, philosophical reach into the past, which can also serve as a tether that is difficult to break or shake.

The philosophical roots of service-learning reach back to John Dewey and, while not as old as the ancient Greeks, they are revered nonetheless. In *The School and Society* (1959) Dewey suggested, "relate the school to life, and all studies are of necessity correlated" (p. 88). Life represents the community, the home, the school, and society. In this, the unifying aim of education becomes growth in socialisation and service by utilising the already existing relationship between school and community (Dewey, 1959). Despite a variety of nuances among definitions of service-learning (e.g., Stanton, 1990; Stanton, Giles, and Cruz, 1999; Ehrlich, 2000; Furco, 2003; Stanton, 2009), there appears to be a common set of characteristics and elements among them that harken back to Dewey. This set includes: a situational balance of community needed service engagement and relevant in-class curriculum with an intentional focus on the central role of reflection in the learner's experience (Eyler and Giles, 1999). With obvious regard for Dewey's tenets, Astin, Volgelgesang, Ikeda, and Yee (2000) referred to service-learning as a pedagogy where students can and should bring their previous experiences, feelings, and ideas with them to present experiences.

The application of service-learning has largely been limited to universities in the United States with little reach beyond that until mid 2010 when it was mandated by the Australian government that all public universities have community engagement as part of their strategic priorities. Despite the establishment of service-learning as a teaching approach in the U.S. as early as 1969, there is no clear indication as to why it lay dormant until the turn of the century. Regardless, it is now an established and well researched educational practice with dedicated units or departments for it at nearly every U.S. university. It is widely believed that the research findings about service-learning establish it as a practice that engages students (Kuh, 2008) and assists them in attaining positive gains in academic enhancement, civic engagement, and personal growth (e.g., Eyler and Giles, 1999; Astin et al., 2000; Gallini and Moely, 2003; Simons and Cleary, 2006; Smith and McKittrick, 2010). While these findings cluster around the transition point of service-learning's widespread use, there is not the discernible cause and effect that has been observed in Christchurch.

*A Case Study of An Idea's Origins: Service-learning in New Zealand Universities*

THIS CASE STUDY OF HOW THE IDEA OF SERVICE-LEARNING BEGAN AND WAS EVENTUALLY ACCEPTED WILL provide an opportunity to consider the phases of idea development that occur within the larger stages of Rogers's Diffusion of Innovation curve. To illustrate this, the following sections will focus on the curve's stages of: innovators, early adopters, and early majority. Within these stages, attention will be paid to the differing influences of Context, People, and Ideas.

*The Idea and only the Idea: Service-Learning at UC, 2000-2011*

IN GENERAL, UNIVERSITY EDUCATION IN NEW ZEALAND IS AKIN TO EUROPE AND THE U.S. WITH BACHELOR'S, MASTER'S, DOCTORATE, and Professional degrees that are similar and transferable. From their beginnings in the late 1800s, the branch campuses of the University of New Zealand were structured with Oxford and Cambridge in mind and have resulted in eight autonomous universities including three (University of Auckland, UC, and University of Otago) that rank in the top 300 universities in the world (Times Higher Education). The main difference between the New Zealand universities and peer institutions, particularly

in the U.S. and U.K., is in cost. Until the early 1990s, all higher education was free and students were supported with a living allowance. With legislative changes, students now pay course fees but with heavy subsidization such that a year's tuition at the University of Canterbury for a full-time undergraduate is just \$4000 New Zealand dollars (\$3000 U.S. dollars).

Despite this low cost, because there is a generational memory of the fact that it used to be free, there is an inherent sense among many students that they must get "something" for their fees, namely a degree that directly translates into paid employment upon graduation. That, coupled with a three year's Bachelor's degree (New Zealand high school is 5 years long with the final year designed to resemble the first year at a U.S. university – many are even called "colleges"), leaves very little room or desire for courses that do not directly lead to a degree. The euphemism of "underwater basket weaving" is not in the lexicon because there aren't seen to be any "crutch" or easy classes. This direct cost/benefit analysis of course choice is significant in that the service-learning course, CHCH101, does not count toward any degree program as of the 2012 academic year. It is important to remember this point as the development and uptake is described in the next section of this article.

So, with the general context of the UC being similar to a Research I university in the U.S., albeit without a year of general education courses or elective courses in degrees or majors, the explicit idea of service-learning was essentially non-existent until 2011. There were two implicit exceptions - Geography 309: Research Methods in Geography and Management 208: Principles of Leadership. The Geography course had been in constant revision and adjustment since 2000 and by 2009 had settled on using an approach that paired groups of students with community organizations to help them solve their research needs. The instructor of the Management course was an innovative teacher and, in 2009, was open to the idea of pairing his students with community groups to help them address their leadership needs. Thus, the idea of service-learning and the three instructors interested in it were the only aspects of service-learning present at UC. Both stayed hidden to a large degree with no publicity or uptake by anyone beyond their immediate contexts. The only time these two instances of service-learning were made visible was through Ph.D. research in 2009-2011. And while the findings from that research was disseminated within the service-learning field, it had no exposure or impact on the UC campus. It can be established, then, that context had little to do with the acceptance of the idea of service-learning at UC up until the February 2011 earthquake.

### *Necessity is a Mother: Service-Learning at UC, February 22-April 22, 2011*

AS NOTED IN THE TIMELINE (TABLE 1), THE EARTHQUAKE IN FEBRUARY 2011 WAS PRECEDED BY ONE IN September 2010. In the immediate aftermath of the September earthquake, UC announced a three-week postponement of classes while campus buildings were checked. Instead of all 17,000 students using this as a break, over 2,000 of them heeded a Facebook invitation by a student-organized group, the Student Volunteer Army (SVA), to go out and assist residents of the city. For even though the structural damage was not severe (only known now in hindsight), the quake and aftershocks left a mess of sludgy, wet sand that was forced up through the ground in the form of liquefaction. Thus, the SVA was a welcome sight to weary residents tired of shoveling the quicksand that turned to concrete upon drying. So, in a sense, Christchurch, UC, and SVA unwittingly had a practice run at disaster response in September.

That experience paled in comparison to the immediate collapse of many downtown buildings, loss of power, water and sewage, road closures, and deaths caused by the February 2011 earthquake. Following this one, the University announced an indefinite closure and within hours of the disaster, people were waiting for the SVA to respond. This time, over 9,000 volunteers worked 16 hour days for over a month and utilized \$1,000,000 of donated equipment and services to assist with liquefaction removal, water and hot meal distribution, assistance to the elderly and housebound, and locating missing people. Both their actions and the whole of New Zealand's reactions to them were extraordinary and are already the stuff of positive legends and folklore.

With UC closed for an indefinite amount of time and the SVA garnering positive media and societal favor, it became apparent to a UC faculty member, Dr. Billy O'Steen, that there should be a way to more closely integrate the two organizations. So, the exact moment that the idea of service-learning was launched as an institutional idea at UC was in an email sent from Dr. O'Steen on February 25 to Dr. Nello Angerilli, Pro Vice Chancellor for Student Services. Dr. O'Steen suggested that a course could be immediately created and would enable students performing earthquake-related service to receive academic credit for it if they linked it to relevant academic readings and assignments. This email was prompted by a television news broadcaster's voice-over on some SVA footage: "It's nice to see all of the students putting

their education on hold in order to help out the Christchurch community.” Dr. Angerilli responded to the email within twenty-four hours and set up a Skype call with the head of UC, Vice Chancellor Dr. Rod Carr, and Dr. O’Steen for March 1.

Prior to the Skype call, Dr. O’Steen collaborated with the Executive Director of Tulane University’s Center for Public Service, Mr. Vince Illustre, who had been integral in establishing that institution’s embrace of service-learning as a way forward after Hurricane Katrina in 2005, Dr. Patti Clayton, a former colleague of Dr. O’Steen’s at North Carolina State University and ex-Director of the Service-Learning Program there, and Mr. Lane Perry, Dr. O’Steen’s Ph.D. student at UC who had done the research on the two courses using service-learning and who was traveling in the U.S. at the time of the earthquake. Mr. Perry, in turn, got in touch with Professor Barbara Holland, former Pro Vice Chancellor for Community Engagement at the University of Sydney, and another key player to the birth of service-learning at Tulane.

Dr. Carr’s support for the course along with the head of the College of Education, Professor Gail Gillon, led a fast-tracked approval process that entailed a working party of faculty members from each of the University’s colleges and then a final sign-off by the Academic Board on April 22 for CHCH101: Rebuilding Christchurch: An Introduction to Community Engagement in Tertiary studies to be offered to students at the start of UC’s second semester in July, 2011. In many ways, the idea of service-learning at an institutional level was in the same, tenuous state as with the instructors of the Geography and Management courses – completely reliant on its guarded survival to interested individuals. However, when the context of local events became overwhelming and well aligned with the idea of service-learning, it had an opportunity to gain momentum and move to the next phase of adoption by the early majority.

#### *The Hump: Service-Learning at UC, April 22-December 1, 2011*

AS GLADWELL AND ROGERS CLEARLY INDICATE, THE CRITICAL TIPPING POINT OF WHEN AN IDEA BECOMES AN accepted and ubiquitous part of the landscape is dependent on a large number of people and their actions. For academia, this point is no different with confirmation coming in the approval of others through a peer-reviewed journal submission process, graduation after passing a certain number of courses, or agreement by the faculty to run or eliminate programs or courses. For service-learning at UC, the point at which the Academic Board approved CHCH101 was the tipping point to push the idea into the realm of adoption by the early majority. It is critical to establish that this was not the point of ubiquity but it was the point of acceptance by a large enough and influential enough group of people that the self-sustainability of the idea was virtually assured. The focus then shifted back to the implementers of the idea as to whether or not they would be able to ensure its continued movement into becoming part of the institution.

Because times of great strain and stress accelerate the idea generation, acceptance, and rejection process, the time span required to move through Rogers’s curve can be significantly compressed as was the case with service-learning at UC. Once the course was launched and over 100 students had enrolled, the idea shifted into strategy with the Prime Minister of New Zealand visiting UC to present the inaugural Community Engagement Awards to the leaders of the SVA, many of whom were also students in the course. This official, high-level recognition supported the establishment of an action point in the UC Operational Plan for Recovery and Development (2011) to “expand the service-learning offering to new and existing students as a differentiator among New Zealand universities” (p. 20), the decision to grant a \$60,000 earthquake-recovery Ph.D. scholarship to a student desiring to come to UC and study the role that service-learning will play in the rebuild of post-quake Christchurch, and regular mention by the head of UC, Dr. Carr, of service-learning being one of four experiences he wants every graduate to have. Again, this quick movement to apparent institutional buy-in does not mean that everyone is in agreement, just that slightly more than a majority are.

#### *Conclusion: So What Really Makes an Idea Fly?*

AS SUGGESTED IN THE CASE STUDY OF THE IDEA OF SERVICE-LEARNING AT UC, ROGERS AND GLADWELL HAVE provided an accurate, general overview of an idea’s movement from individual or small group imaginings to mass acceptance and implementation. Their overview can be furthered magnified to indicate that within each of the first three phases of innovation diffusion there are rotating roles that three elements of ideas, people, and context play with each one leading the way at different times.

In an idea’s infancy, it appears that all three elements are at their most equivalent with regard to

weight or influence with context being the least important. The idea and its proponents quite often exist in the shadows or on the margins because their idea is not yet ready for wider exposure and acceptance. Despite this unacknowledged enthusiasm, they maintain the idea because that is what they find appealing and not, necessarily, widespread adoption.

To move an idea from a committed few to a “wider some” requires a catalyst or disturbance that provides the opportunity for exposure, rejection, or bastardization of the pure idea. This case study of service-learning suggests that in this stage, the catalyst must be a significant change to the context in which the idea is situated. This can come about through unforeseen natural occurrences, as with the earthquakes in Christchurch, or in a more strategic manner with a change in institutional leadership or revised organizational goals. Regardless of the stimulus, something beyond the influence of the dedicated individuals has to intervene.

Despite the most extraordinary of circumstances, the wider acceptance of an idea is dependent on people because the context can and will change again. This is borne out in any campaign where the initial energy for an idea (e.g., reactions to the events on September 11, 2001) is not enough by itself to maintain its long-term sustainability or acceptance (e.g., a change in public opinion about U.S. actions in Afghanistan and Iraq after September 11, 2001) without further supporting, contextual changes. So, for this most critical stage in an idea’s lifespan, the people who are both implementing it and evaluating it have the most influence of any component during any prior stage.

This last point is reassuring in that, eventually, the long or short term existence of an idea is ultimately a democratic and evolutionary decision in which both the original idea and proponents of it, and the context that enabled it to be foisted upon a larger populace, become less important than the majority’s view of the idea’s implementation. All three of our suggested components inside of Rogers’s and Gladwell’s suppositions are particularly critical for generators and supporters of ideas to consider in determining what to do with that next great idea.

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