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The Wellbeing Index: A Landscape of Worldwide Measures and the Potential for Large-Scale Change

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The Wellbeing Index: A Landscape of Worldwide Measures and the Potential for Large-Scale Change

Abstract

Around the world, across a spectrum of disciplines and by many different pathways, measures of wellbeing are emerging as a means for institutions and individuals to join forces in their efforts to balance material growth and development with the rights of humans to preserve, protect, and pursue those interests that lead to wellbeing, for both individuals and for society. Wellbeing indices are an important and innovative addition to the global conversation about the economics of happiness. Their rising viability with nations, communities, Nobel laureates, ordinary citizens, academics, economists, and policymakers, speaks to a growing questioning of the validity and adequacy of traditional measures of national progress – notably, the gross domestic product. Through the lens of positive psychology, this capstone provides an overview of the landscape of wellbeing indices, identifying in one place who is measuring what, by what indicators, and why. As scientific interest in the measurement of population wellbeing and national performance begins to deliver and document empirical results, this capstone makes a case for the wellbeing index as an instrument of massively disruptive and contagious change – a grand-scale positive intervention that has the potential to change the world.

Keywords

wellbeing, well-being, index, indices, Santa Monica, metrics, happiness, Positive Psychology, intervention, economics of wellbeing

Disciplines

Arts and Humanities | Economic Policy | Public Administration | Public Affairs, Public Policy and Public Administration | Social and Behavioral Sciences | Urban Studies | Urban Studies and Planning

The Wellbeing Index:

A Landscape of Worldwide Measures and the Potential for Large-Scale Change

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A Capstone Project Submitted

In Partial Fulfillment of the Requirements for the Degree of

Master of Applied Positive Psychology

Advisor: Margaret L. Kern, Ph.D.

August 1, 2013

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A Landscape of Worldwide Measures and the Potential for Large-Scale Change

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**The Wellbeing Index:
A Landscape of Worldwide Measures and the Potential for Large-Scale Change**

“The good opinion of mankind, like the lever of Archimedes, with the given fulcrum, moves the world.” – Thomas Jefferson (1814)

This is a story about changing the world by what is measured – counting what counts. It has a cast of characters: Socrates and Aristotle; Jeremy Bentham and Thomas Jefferson; Simon Kuznets and Robert F. Kennedy; Nicolas Sarkozy and David Cameron; Amartya Sen and Joseph Stiglitz; Martin Seligman and Daniel Kahneman; His Majesty the King Jigme Khesar Namgyel Wangchuck, the Fourth King of Bhutan, and Pam O’Connor, the current mayor of Santa Monica – among a cast of millions, including you and me.

This story has a central hero: the wellbeing index, and this paper will present its story – past, present, and future. I will first set the stage, grounding wellbeing theory in a socioecological perspective. Second, I will present the *whats* of the index: a) *what* is wellbeing from a systems perspective? b) *what* is the wellbeing index, and how does it bridge positive psychology and public policy? and c) *what* is being measured? As a resource, I provide a landscape of existing notable indices, identifying in one place who is measuring what and by what indicators.

Third, I will present the *why*. In spite of the fact that the world economy has ravaged the coffers of government in recent years, such leaders as Nicolas Sarkozy, when he was President of France (Aldrick, 2009), and David Cameron in the UK (Stratton, 2010), have found the money and time to invest their nations’ resources in the measurement of wellbeing. Central to the story is the antagonist, the gross domestic product (GDP), whose role as villain, I will show, has largely been miscast.

Finally, I will present the *where* – where can the wellbeing index go in the future? From a

positive psychology point of view, I will advance the argument that the wellbeing index manifests each of the characteristics that qualify it as a positive intervention. But wellbeing indices are not just any positive intervention. I intend to show that the wellbeing index is a type of massively disruptive and contagious positive intervention, part of a second generation of positive interventions geared to help society and its institutions accelerate and maximize wellbeing on a grand scale.

I will look at these large questions with the hope that this work will accelerate the ability of governments – for example, my own town’s fledgling commitment to create a Santa Monica Local Wellbeing Index (Anderson, 2013) – to embrace the concept of a wellbeing index, easing the start-up process by providing a birds’ eye view of the current, and quickly moving, landscape for marrying wellbeing and measurement to government policy.

Setting the Stage: Wellbeing from a Socioecological Perspective

“Happiness is serious business.”—Nic Marks (2013),
Founder of the Centre for Well-Being, New Economics Foundation (nef)

Seligman (2011) has said that to create a flourishing future, you have to plant the enabling conditions of psychological wellbeing today. Huppert and So (2011) point out that the term “flourishing” describes our experience when life goes well. It combines both good feeling and effective functioning, and it is synonymous with mental health and a high degree of mental wellbeing (Huppert 2009a; 2009b; Keyes 2002; Ryff & Singer, 1998).

In order to ground wellbeing theory in a socioecological perspective, I will first define what I mean by wellbeing for the purposes of this paper, both at the individual level and then at the collective level. Definitions of happiness and wellbeing abound and though these terms each have their own unique attributes, the words “wellbeing” and “happiness” are often used interchangeably, especially in public-facing communications (such as on the web sites of the

various wellbeing indices). As Cummins (2010) – creator of the Australia Unity Wellbeing Index – explains about the interchange of the terms “happiness” and “wellbeing”, “happiness is a term that people can relate to and conceptualize easily” (p. 5).

Indeed, researchers who contribute to the field of study of happiness and wellbeing also often interchange the two terms and they have provided a diversity of definitions for happiness (Deci & Ryan, 2008). To Layard (2005), happiness at the individual level is “feeling good—enjoying life and wanting the feeling to be maintained” (p. 12). To Myers (2004), it is “a high ratio of positive to negative feelings” (p. 522). Diener’s (2000) specialty is subjective wellbeing (SWB) – *subjective*, because individuals evaluate for themselves the degree of wellness they are experiencing. And when SWB is interpreted to include having a high level of positive affect, a low level of negative affect, and a high degree of life satisfaction, the concept of SWB is often equated with “happiness” (Deci & Ryan, 2008). Duncan (2013) asserts that the diverse use of this terminology is healthy and not a fundamental flaw as the “science of happiness” evolves.

Since the subject of this paper is an emerging set of metrics called *the wellbeing index*, I will use the term “wellbeing” rather than “happiness” throughout this paper. *Wellbeing*, as I intend to use the term, draws upon the traditions of Aristotle and the ancient Greek philosophers as well as contemporary positive psychology to marry at least two traditions together: hedonia (psychologically speaking, a state of pleasure) and eudaimonia (a life experienced as morally meaningful and as engaging) (Aristotle, 1985; Deci & Ryan, 2000; Hervas & Vazquez, 2012; Huppert & So, 2011). Further, the word “happiness” can be confusing, easily misread for the *emotion* of happiness, *only* pleasure, while the word “wellbeing,” as I use it, and as it is used in most of the indices, deliberately emphasizes the Aristotelian philosophy of *eudaimonia*: the concern not only with living well, but with actualizing our human potential (Waterman, 1993).

At the level of the individual, then, *wellbeing* is living a life that the individual believes to be good and satisfying, whatever he or she defines those words to mean.

In addition, wellbeing can be viewed from the individual's perspective – my personal vitality – or it can be viewed from the societal level – the community's vitality. The community, Bentham (1781) believed, is a “fictitious body” (p. 1), made up of individuals. He said, “It is in vain to talk of the interest of the community, without understanding what is the interest of the individual” (p. 1). As I will argue, the individual level and the collective level of wellbeing are *mutually* interdependent (Prilleltensky, 2005).

In this paper, therefore, I expand the definition of wellbeing to also include wellbeing at the *collective* level. According to Helliwell and Barrington-Leigh (2010), who have been instrumental in sustaining the Canadian Index of Wellbeing (CIW), the emergence of wellbeing measures represent the “promising trend” (p. 729) of academic, policy, and public arenas to incorporate measures of quality of life and subjective wellbeing into their measures of prosperity and progress. Many of these indices are relatively new to governments and their citizenry and the cultivation and support of wellbeing is a collaboration requiring full participation by many actors, including the government, who tends to the public sector; the citizenry, who tend to our families, communities, and culture in prayer, work, and sport; and institutions – business, religion, media, entertainment, and non-governmental organizations (NGOs) (such as non-profit and charitable entities that operate outside the government, often to influence policy) (Cummins, 2010; Helliwell & Barrington-Leigh, 2010; Ura, Alkire, Zangmo, & Wangdi, 2012).

Prilleltensky (2005) tells us that wellbeing may be defined as a positive state where “the personal, relational, and collective needs and aspirations of individuals and communities are fulfilled” (p. 54). He calls this “relational wellbeing” (p. 54): the wellbeing of any one individual

depends highly on the wellbeing of that individual's relationships and on the community in which he or she lives. From this perspective, wellbeing is not the job of the collective alone, nor is it the job of the individual alone. The cultivation of wellbeing is a shared responsibility; a process that is dynamic and interactive, telescoping interdependently, and, as necessary, from the personal level to the group level and back (2005).

An Ecosystem of Wellbeing

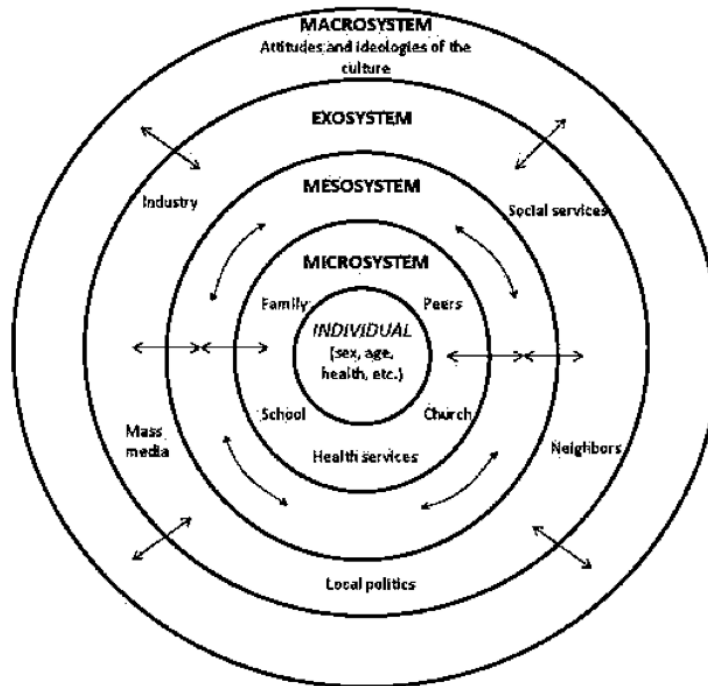
Inherent in these definitions of individual and collective wellbeing is the concept of an *ecosystem* (Bronfenbrenner, 1986; Prilleltensky, 2005). For centuries, the government, the individual, and all their intervening communities – what Bronfenbrenner (1986) calls the Ecosystem of Human Development (Figure 1) – have been striving to set and meet each other's standards, however imperfectly. Without sufficient checks and balances – without a *dashboard* of wellbeing-relevant indicators (Butler & Kern, 2013; Gertner, 2010; Stiglitz, 2008) – it is easy for both sides to become unbalanced. For example, the government may choose to increase jobs by drilling for oil; the oil company wins in terms of financial gain, but the planet is negatively impacted, potentially with long-term consequences. Or an individual may choose to amass as much personal fortune as possible selling subprime mortgages; the individual increases his wealth and quality of life, but contributes to the destabilization of the government's economy, as well as disrupting the earning power and quality of life of his neighbors.

Figure 1 illustrates Bronfenbrenner's socioecological model. According to this theory, an individual's development takes place within four environmental systems, like a set of nested Russian dolls – microsystem, mesosystem, exosystem, and macrosystem¹ (Bronfenbrenner,

¹ A fifth system, the chronosystem, reflects the sociohistorical conditions that impact life events in the macrosystem (for example, historians cannot talk about the American nineteenth century without talking about the Civil War

1986; Bronfenbrenner & Morris, 2006). This model provides a background for understanding and capturing the dynamic nature of wellbeing.

Figure 1. Bronfenbrenner's Ecosystems of Human Development.



Source: Retrieved from http://en.wikipedia.org/wiki/Social_ecological_model

- The *microsystem* is the system in which the individual lives. The parts of this system include the individual's immediate influences, such as family, peers, school, church, workplace, and neighborhood.
- The *mesosystem* is the system of all the interconnections that those in the microsystem have with each other, whether or not they actually know one another.

[Guelzo, 2013]. Due to its pervasive impact on the entire ecosystem, the war would have likely been a prominent factor in individual development during that time period). The chronosystem is not relevant to this discussion of individual and community wellbeing but is footnoted here for completeness.

- The *exosystem* is the system of institutions that can indirectly affect the individual's microsystem and the individual herself. These institutions include government and social policy, the broader community, mass and social media, institutions, non-governmental organizations, and businesses.
- The *macrosystem* reflects the attitudes and ideologies of the culture (Bronfenbrenner, 1986; Bronfenbrenner & Morris, 2006).

Let us look at how the individual and the government interact within this multilevel ecosystem. From the top down, historically, at the exosystem level, most governments have aimed to provide for their people – directly at the microsystem and mesosystem levels – meeting their basic needs of food, shelter, and housing, for example; and indirectly, through programs and policies that attempt to deliver a good quality of life to constituents, for example, programs and policies related to the environment, healthcare or education. From the bottom up, most individuals also aim for a good quality of life – for themselves and for the collective (family, work, church, community) that comprise their mesosystems.

From a socioecological perspective, wellbeing entails numerous levels. Theory and application have targeted multiple levels – the individual, the community, the society, and the relationships that connect them all. Prilleltensky (2005) refers to these nested ecosystems as “sites of wellbeing” (p. 54). Each site of wellbeing has a contribution to make, a job to do, and wellbeing depends upon each site's ability to take responsible action and to honor the contribution of the other sites of wellbeing. Positive psychology focuses primarily on the microsystem – individual perspectives. Public policy targets the exosystem and the macrosystem. The wellbeing index, as I will argue, acts as a bridge between them. It is a metric that can be used by institutions and communities to influence, and be influenced by, individual perspectives

of satisfaction. By targeting metrics at a community level to focus on the good in life, it indirectly will influence the populace, becoming an intervention that is disruptive and contagious – that is, a large-scale positive intervention. In turn, as individual wellbeing adjusts upward in response to the community-level metrics, the wellbeing at the mesosystem and the exosystem levels also increases.

The Wellbeing Index: The Whats

“The duty of our government must be to ensure that...the happiness and wellbeing of our people are nurtured and protected. Our government must be human.”

—His Majesty the King Jigme Khesar Namgyel Wangchuck, the Fourth King of Bhutan (2012)

With this framework as our stage, we turn to the *whats* of the wellbeing index – what is the metric for wellbeing? I provide a background of positive psychology, along with the imperative that comes from this to expand our focus on what we measure. Building upon this, I present the wellbeing index. Numerous such indices have and are being developed, and I provide an overview – a landscape – of these measures.

A Brief Overview of Positive Psychology

At the start of the millennium, Seligman and Csikszentmihalyi (2000) boldly invited the field of traditional psychology to join forces in building a shared future filled with flourishing human beings. They laid down the gauntlet for the field of positive psychology at the group level: “Psychologists working with families, schools, religious communities, and corporations, need to develop climates that foster [human] strengths” (p. 8). They conclude their framework for positive psychology by predicting “that positive psychology in this new century will allow psychologists to understand and build those factors that allow individuals, communities, and societies to flourish” (p. 13). To do this, they argued, we must move beyond our preoccupation

with the past, and focus on behaviors that are generative, teachable, learnable, increasable – and I would add the word “scalable”, or positive and of the future.

These words ushered in the decade that saw the unraveling of the world economy and the financial meltdown of 2008, which compromised sustainable economic and environmental wellbeing as budgets tightened and companies recalibrated. The economic crisis in the U.S. spread around the world, shaking the foundations of our economic systems, including our faith in one of its chief indicators, the gross domestic product (GDP) (Fasolo, Galetto, & Turina, 2011). At the same time, positive psychologists were already in an accelerated phase of their work. According to Diener (2009), between 1980 and 1985, a little over 2,100 studies on topics related to subjective wellbeing, happiness and life satisfaction were published. During the first five years of the new millennium – 2000 to 2005 – that number of studies had multiplied to over 35,000 – “a 17-fold increase” (Diener, 2009, p.4). Scholars have examined, among other things, the interconnections between wellbeing and eudaimonia (Pawelski & Moores, 2012); wellbeing and strengths (Seligman & Peterson, 2004); wellbeing and potential (Ryan & Deci, 2001); and wellbeing and positive and negative emotions (Csikszentmihalyi, 1997; Fredrickson, 2009; Lyubormirsky, 2008; Oishi, Graham, Kesebir, & Galinha, 2013).

Chris Peterson (2006) defined positive psychology as the study of things that make life worth living. In their book on the topic, Compton and Hoffman (2012) provide a definition of positive psychology that reflects how the science has evolved over the past decade and reinforces the original mandate that positive psychology must scale across multiple levels. They call it “the scientific study of positive human functioning and flourishing on multiple levels that include the biological, personal, relational, institutional, cultural, and global dimensions of life” (2012, p. 2). While mainstream psychology has focused on diagnosing and treating mental illness in all its

forms, positive psychology promotes optimal functioning. The view of the most influential thinkers of the twentieth century – Darwin, Marx, and Freud – was largely that we have been prisoners of our immutable past. Darwin, for example, had us tethered to our genetic makeup, Marx to class and wage, and Freud to some unresolved, often unconscious, aggression and trauma (Seligman, Railton, Baumeister, Sripada, 2013). And while mainstream psychology has given us tools with which to mitigate the past in the remediation of pathology, the best that that treatment has delivered is to ease suffering on the mental health continuum, and to hold it as close to zero as possible for as long as possible (M. E. P. Seligman, personal communication, September 5, 2012).

The philosophical difference between mainstream and positive psychology is the difference between merely enduring and surviving, and truly flourishing (Seligman & Csikszentmihalyi, 2000). The goal of positive psychology is to live a life that is thriving and that has meaning, balancing the positive while minimizing the negative as much as possible. Richard Layard (2011) of the London School of Economics, who, with his colleagues, has been instrumental in designing the wellbeing index for the UK, helps connect positive psychology to the wellbeing index's role in creating “a happier society” (para. 1). He points out that positive psychology demands that we pay attention to the quality of our inner life, and “to proven methods for improving it. That is what positive psychology is about – it...teaches resilience and optimism” (para. 2), both of which are predictors of educational achievement and longer life expectancy, two common indicators that are measured by wellbeing indices.

Then at the beginning of *this* decade, Seligman (2011) upped the ante for wellbeing in the world: “By the year 2051, 51 percent of the people of the world will be flourishing” (p. 240). As a benchmark for where we are starting, we have only to consider three tragic news events of

recent months: the shootings at Sandy Hook school in Newtown, Connecticut in December 2012 (killing 26 people, 20 of them schoolchildren, ages six and seven; Barron, 2012); the bombings at the finish line of the Boston Marathon in April 2013 (killing three people and injuring 264 others; Elgon & Cooper, 2013; Gabbatt, 2013); and the shootings in Santa Monica in June 2013 (killing six people and injuring four more; Lovett & Nagourney, 2013).

While we can choose to view these incidents as the isolated events of several uniquely troubled minds with access to weapons or the means to create them, experts argue that the violence in their actions may stem, at least in part, from the influences and isolations of the cultures and societies in which they live and the legislation and policies that govern them (Anderson et al., 2003). Anderson and colleagues point out that while violence occurs as a phenomenon due to a host of converging factors, “the large number of contributing factors points to the complexities of understanding social and psychological causation in a context of human development” (p. 105). It has been shown that being exposed to violence in the media, such as television, movies, and video games, does play a causal role in violent social acts (Anderson et al., 2003). In fact, the authors have shown that adjustments in public health and social policy are a possible route to reducing violent acts in the future.

Wellbeing and the Microsystem

Researchers in the fields of psychology, sociology, and economics agree that what Duncan (2013) calls the “happiness-maximization principle” (p. 304) has emerged as an area of intense focus over the past thirty years (Adler, 2012; Duncan, 2013; Oishi et al., 2013). As Matthew Adler (2013) says: “‘Happiness’ is all the rage” (p. 1509).

According to Harvard psychology professor Daniel Gilbert (2012), author of *Stumbling on Happiness*, the study of emotion has exploded over the course of these decades and “one of

the emotions psychologists have studied most intensively is happiness” (p. 85). In truth, long before Thomas Jefferson wrote it in to the Declaration of Independence as one of humankind’s “unalienable rights” and Jeremy Bentham (1781) sought to measure its utility during the Enlightenment, happiness had enjoyed a secure station in the world’s *philosophical* agenda. This view of happiness centers on the contributions of wellbeing at the microsystem level.

In recent decades, economists, seeking to know what people value (Stiglitz, Sen, & Fitoussi, 2009), and neuroscientists, who want to know how the brain responds to rewards (Berridge & Kringelbach, 2011), are now mixing in with psychologists, who want to know empirically what people feel (Kahneman, Diener, & Schwarz, 2003). These disparate disciplines, all pursuing the intersection where wellbeing meets data, have landed happiness on the world’s *scientific* agenda. “Happiness” is now winning Nobel prizes: Daniel Kahneman, for connecting psychology and economics (Martens & Stephenson, 2013). It is getting published in *Science* magazine: Dunn, Aknin, and Norton (2008), for connecting spending and happiness. And it is luring governments to consider increasing the wellbeing of their citizenry: the country of Bhutan is one, which has since been joined by national and local governments around the world, as I will discuss below (Cronin, 2013). According to the Centre for Bhutan Studies, creators of that country’s Gross National Happiness Index, “the field of multidimensional measurement of wellbeing is entering a period of intensive innovation” (Ura et al., 2012, p. 4). For, inspired by these early efforts at combining happiness with scientific study, governments around the world are today harnessing the marriage of wellbeing with metrics to impact the human flourishing of their citizens.

Wellbeing and the Exosystem

Nobel laureate and economist Joseph Stiglitz and his colleagues (2009), in their oft-cited

Report by the Commission on the Measurement of Economic Performance and Social Progress, state that it is possible, and desirable, for governments to collect meaningful and reliable data on both subjective and objective wellbeing. In the UK's Coalition Government's Budget 2010 Report, the government committed its resources to developing wellbeing and sustainability indicators across the UK, leveraging the work of Stiglitz (ONS, 2011). Veenhoven (2004), who defines individual wellbeing as "the overall enjoyment of your life as a whole" (p. 664), argues that wellbeing can be promoted by public policy. Dolan, Layard, and Metcalfe (2011) tell us "the measurement of wellbeing is central to public policy" (p. 1).

Richard Eckersley (2009), in his evaluation of the role of subjective wellbeing measures in indices, suggests that policymakers seem to be seeking the measurement of happiness as "the holy grail of national indicators: a simple, easily understood and measured quality that could serve as a single measure of human wellbeing and social progress" (p. 2). He allows that while such simplicity is not possible given the complexities of what is being measured, countries are still better off measuring happiness than not, and can make social progress using the tools they are developing.

Defining the Wellbeing Index

Just as Aristotle believed that we do not study virtue simply to understand it, but to "profit in" (Melchert, 2002, p. 188) the study of virtue by becoming good, we measure wellbeing not for the sake of benchmarking wellbeing, but for creating the balanced, socially and economically sustainable world that lies beyond wellbeing. Wellbeing, like Aristotle's take on virtue, is a means to an end, and that end is a people-friendly, flourishing world.

The globe is awash in diverse worldviews, value systems, and needs. Few regions within a country, few neighborhoods within a city, are likely to share precisely identical sets of social,

cultural or civic requirements based on what people value and where they are in their lives. How, then, is a policymaker to drive policies that create wellbeing for such a diversity of constituents? It is not possible, nor would it be desirable, to insist that the entire planet adopt a single definition of wellbeing and a single standard for measuring it. But what is possible is to create a community in which to share best practices around the process of measuring wellbeing. For at the center of complexity and diversity lays an instrument of fairly recent vintage – Archimedes’ lever, if you will – *the wellbeing index*. It is my hypothesis that the wellbeing index has the power to change the world.

For the purposes of this paper, I use the term “wellbeing index” to describe any of a number of recent composite measures being used all over the world, at the international, national and subnational levels, that focus on measuring the relation of wellbeing to progress in societies. While they go by different names – signaling not so much what they measure (e.g., life satisfaction, use of time, health), but what they hope to achieve: national happiness, prosperity, a better life, a happy planet – the indices I am calling “wellbeing indices” (several of which are summarized in Appendix 1 and in Table 1 in a later section of this paper) tend to share several common characteristics:

- They measure wellbeing at periodic intervals (daily, weekly, annually, etc.).
- They include a spectrum of “holistic, balanced, collective, sustainable, and equitable” (Ura et al., 2012, p. 7) indicators, such as quality of life, the environment, education, community vitality, in order to drive wellbeing at the microsystem level while impacting policy at the exosystem and macrosystem levels.
- They aim for three successive goals: a) understanding their starting point – the population’s current measure of wellbeing; b) identifying the gaps where wellbeing falls

short; and c) identifying those places where adjustment to, and strengthened investment in, policies and programs will both sustain existing wellbeing and seed new wellbeing in order to adjust it up. These goals are aspirational as governments proceed with caution.

- They satisfy what Dolan, Layard, and Metcalfe (2011) consider the three general conditions required for any account of wellbeing to be useful in policy. These are: “theoretically rigorous”, “policy relevant”, and “empirically robust” (p. 2).
- They will be used for one of three main policy purposes, according to Dolan and colleagues (2011):
 - a) monitoring progress (determining fluctuations over time); b) informing policy design (measuring wellbeing in different populations that may be affected by policy – [for example, designing policy to accommodate the measured increase in the homeless population in New York after the economic downturn of 2008]; c) policy appraisal (showing the costs and benefits of different allocation decisions) (pp. 2-3).
- Ultimately, wellbeing index results should produce a return on investment (ROI) of greater measured wellbeing, impacting the overall financial health or prosperity of the measuring institution (country, city, corporation, etc.).

A final feature of the indices is that they typically involve multiple areas that combine together to offer a profile of progress toward the specified goals. Several scholars have referred to this as a *dashboard* (Forgeard, Jayarickreme, Kern, & Seligman, 2011; Frey & Stutzer, 2010; Stiglitz et al., 2009). Layard (2011) suggests that a weighting system -- for combining different objectives into a single criterion in order to compare the cost and benefits of various cuts and expenditures -- is a requirement of rational public policy. This is an area that has drawn some

debate and warrants careful consideration. The extent to which domains should be aggregated remains a key challenge for societies moving forward (Stiglitz et al., 2009).

Wellbeing Measurement: It Is Complicated

To those attempting to measure wellbeing in the present day, there is a healthy respect for the complexity of it, an acknowledgement that all this talk about measuring wellbeing is speculative and experimental (Eckersley, 2009; Helliwell & Barrington-Leigh, 2010; Ura et al., 2012). For example, in a study by Smart and Sanson (2005), when young people were asked to rate their life satisfaction across a spectrum of wellbeing indicators, 80 percent said they were satisfied with their lives. In fact, though, 50 percent were experiencing problems resulting from depression, anxiety, anti-social behavior, or alcohol abuse. In other words, *most* of those with problems were also reporting being satisfied with life. Common sources of contradictions include rationalization, self-illusion, vulnerability, and sometimes just simply wanting to appear, even to ourselves, like we have it all under control (Eckersley, 2009). Indices should include both subjective and objective evaluation criteria in their design for data collection, as Stiglitz and colleagues (2009) suggest. Eckersley (2009) advises us to proceed with caution when taking self-reported health and happiness measures at face value. Dolan & Metcalfe (2012) point out that world governments, including the UK, where they work with the Office of National Statistics (ONS) on that country's National Wellbeing Index, are beginning to take seriously subjective wellbeing measures – “ratings of thoughts and feelings about life” (p. 1) – as a means to monitor progress and inform their appraisal of public policy. Such measures, they argue, are useful in providing additional perspectives and will be helpful as policy makers decide how to allocate their resources.

Contradictions abound, especially where subjective wellbeing metrics reveal complex inner lives. The creators and sustainers of Bhutan's GNH Index put it this way: "Happiness is a very deeply personal experience and any measure of it is necessarily imperfect...It may not be necessary to have sufficiency in all of the indicators in order to be happy" (Ura et al., 2012, p. 23). For example, for the elderly, sufficiency in education may no longer be important. Or, a person may not be healthy, but may have achieved a fulfilling and enriching family life. "Many people are fully happy without achieving sufficiency in every single indicator" (Ura et al., 2012, p. 24).

In fact, the study of the field of successful aging offers examples that help us better understand the complex nature of our definitions of happiness. In one study conducted by Fisher (1995), 40 adults at a senior activity center were asked in a series of open-ended questions to define life satisfaction and successful aging. While successful aging is often equated with life satisfaction, these senior citizens supported the idea that, while both are valued and may overlap, life satisfaction and successful aging are, for them, separate concepts, clearly emphasizing that one is not *necessarily* dependent on the other.

According to Bok (2010), the happiness-age curve in the United States is U-shaped: happiness is highest during youth, dips to a low point at about the age of 40 and moves back up (controlling for any decline in health) by the early 70's. Laura Carstensen has led work on what she calls the positivity effect – that despite decline, older adults report being happier than younger people. Old age is often thought of negatively by both younger and older individuals (e.g., Garry & Lohan, 2011; Nosek, Banaji, & Greenwald, 2002), yet "the observation that emotional well-being is maintained and in some ways improves across adulthood is among the most surprising findings about human aging to emerge in recent years" (Carstensen et al., 2011,

p 21). Ryff (1989) on the other hand, found that when a decline in happiness accompanies aging, it could be associated with a reduced sense of purpose. The dynamics of the aging population, in other words, may remind us that our assumptions about happiness and any specific population or demographic are bound to be challenged, highlighting the need for rigorous “evaluation, experience, and eudaimonic” (Dolan et al., 2011 p. 2) measures that accompany monitoring progress, informing policy design, and appraising policy impact.

The complications involved in differing perspectives of happiness, at least for the purposes of public policy and change, is less problematic if we return to the socioecological perspective. Of the existing wellbeing indices (more details below), the majority does not measure *personal* wellbeing, so much as the *conditions* that enable people to flourish. Carefully constructing environments focused on thriving potentially can nudge people towards health and vitality (Buettner, 2012). So we turn to the final what: what are the existing wellbeing indices?

The Indices: Landscape of Top Initiatives

“Happiness might be the holy grail of national indicators.”—Richard Eckersley (2009)

A growing body of evidence suggests that wellbeing and happiness, along with their related constructs such as life satisfaction, resilience, optimism, grit, and self-determinism are related to various positive outcomes, including less divorce, increased educational and work-related accomplishments, strong relationships, and better health outcomes (e.g., Diener & Chan, 2011; Howell, Kern, & Lyubomirsky, 2007; Lyubomirsky, King, & Diener, 2005; Patton et al., 2011; Pressman & Cohen, 2005).

Understanding and building wellbeing is increasingly envisioned as an interdisciplinary issue that should be addressed at all levels. As Butler and Kern (2013) observe, “A key element

to international debate is the need to measure and document levels and changes in well-being at individual, community, and national levels” (p. 3).

Wellbeing has enjoyed greater political interest as measured happiness and life satisfaction have begun to combine with the gross domestic product (GDP) to measure national progress (Eckersley, 2009).

In the next section, I explain our current reliance on the GDP and our need to reconsider its role in our measurement of wellbeing. For now, it is important to realize that even Kuznets (1934), the creator of what is now the GDP, resisted using the GDP as a sole barometer of welfare. As he said, "The welfare of a nation can scarcely be inferred from a measure of national income" (Kuznets, 1934, p.7). According to Stiglitz and colleagues (2009), assessing the quality of life of a population will require measuring, at minimum, the following categories: health, education, environment, employment, material wellbeing, interpersonal connectedness, and political engagement (Gertner, 2010), each of which provide insight into what we, as humans, value, beyond the insights offered by the GDP.

In this section, I provide an overview of some of these so-called “dashboards” – the wellbeing indices that have gotten either the most attention or that I believe have the most traction in their quest to measure what matters at the societal level.

Based on my review, Appendix 1 includes fourteen wellbeing indices I have highlighted for better understanding the wellbeing index landscape. While I should note that there are indices being developed around the world that do not appear among my selections, I have included those that I consider to constitute a representative landscape of wellbeing indices. My criteria for selection, which is subjective and is based on my own evaluations of how the index creators have

publicly approached the creation and maintenance of their indices, is as follows. The selected indices meet at least two of the following criteria; many meet most of these criteria:

1. Defines wellbeing to be comprised of both hedonic and eudaimonic indicators.
2. Is a high-profile example or model for measurement within its sphere of influence. A “sphere of influence” might be geographical (e.g., Australia or Santa Monica); or it might be a known and respected entity (e.g., Gallup or the United Nations).
3. Contributes to the global conversation for evolving best practices around analyzing and creating wellbeing indices.
4. Creates public-friendly tools and reports that render the results of the index accessible to the individuals who make up their constituency at the microsystem level. For example, the UK released an interactive Wellbeing Wheel of Measures on their web site that enables citizens to personally relate to the current benchmarks. They also regularly release their scores in the form of easy-to-comprehend infographics. I have included links to these in Appendix 1.
5. Intends to increase the wellbeing of constituents through the collection of data, as evidenced by their actions as well as their words; appraises policy and considers adjustments accordingly.

An Alphabetical List of Selected Indices

Selected indices are:

1. Australia Unity Wellbeing Index
2. Canadian Index of Wellbeing
3. Gallup-Healthways Wellbeing Index
4. Genuine Progress Indicator

5. Gross National Happiness Index
6. Happy Planet Index
7. Legatum Prosperity Index
8. OECD Better Life Index
9. PERMA-Profiler
10. Santa Monica Local Wellbeing Index
11. Social Progress Report
12. State of the USA
13. UK National ONS Wellbeing Index
14. United Nations Human Development Index

For each featured index, Appendix 1 shows:

1. The name and date of establishment of the index
2. A brief summary
3. The “overarching goal,” that is, the problem the index was designed to resolve²
4. The website address

Two indices have seniority on the list. The United Nations Human Development Report has been in existence since 1990. Economist and Nobel laureate, Amartya Sen, who later went on to partner with Joseph Stiglitz to produce the Social Progress Report (Stiglitz et al., 2009), was highly influential in the development of this index. Then there is Bhutan’s Gross National Happiness Index. Bhutan has had explicit policies around Gross National Happiness since 1972; it launched its first index in 2008 and updated it in 2010 (Ura et al., 2012). The Centre for

² Since in-depth discussion of each of these indices lay outside the parameters of this capstone, the descriptions and goals in Appendix 1 are taken verbatim from the index’s own materials and reports, edited for brevity and clarity.

Bhutan Studies has clearly documented their analysis and decisionmaking process around the development of their GNH index. It is essential reading for anyone who is considering creating a wellbeing index of their own (Braun, 2009, Ura et al., 2012).

The Indicators: What Are These Indices Measuring?

Since wellbeing refers to “a satisfactory state of affairs for individuals and communities that encompasses more than the absence of disease” (Prilleltensky, 2005, p. 54), indicators are carefully selected by the statisticians who design the index to measure what matters against the index’s overarching goal (see Appendix 1). Indicators may reflect the populace’s cultural, psychosocial, economic, political, and physical environments, all of which may influence the state of wellbeing; and they may also seek to measure aspects of wellbeing that reach into the realm of values, meaning, and spirituality (Prilleltensky, 2005).

There is no one simple indicator that will measure wellbeing across the spectrum of desired outcomes for all the desired populations. It helps to understand what indicators – sometimes referred to as domains – the indices do measure.

First, not all indices have the same purpose (see Overarching Goals in Appendix 1). For example, the Happy Planet Index, which ranks countries on how many long and happy lives they produce while at the same time increasing sustainability, looks at only three indicators (Ecological Footprint, Experienced Wellbeing, and Life Expectancy), whereas the UK, seeking to know what constitutes happiness for all of its citizens, measures ten domains. Second, neither Santa Monica’s Local Wellbeing Index nor the State of the USA has decided on which indicators will be included. In the case of Santa Monica, this is due to the newness of the initiative; they were just funded in 2013. In the case of the State of the USA, this index has been in some form of discussion or design since 2003 and was just resurrected when the Obama Healthcare bill

passed in 2010 (Gertner, 2010). Their indicator selection process is underway and ongoing. Since this is a table that should be considered a living document, I held the place for these indices in the list for future definition. Finally, the PERMA-Profiler is a recent addition to the index initiatives. I have held its position as it undergoes testing and development (Butler & Kern, 2013).

To bring sense to the various measures, Table 1 organizes the indicators by index. In all cases, the indicators for each index already integrate social values, reflecting what the originators believe best convey the measurable wellbeing of those surveyed. The data collected is seen by the index creators as solid research upon which policy shapers and government leaders can make informed decisions. The indices all have an implicit or explicit commitment to continuous research and refinement, as gaps in the instrument itself are identified (Cummins, 2010; Helliwell & Barrington-Leigh, 2010; Ura al., 2012).

The index creators listed acknowledge their place in the wellbeing index macrosystem and have an objective to further the statistical literacy of what can be thought of as a global wellbeing measurement movement from which other initiatives, large and specific, present and future, may benefit (City of Santa Monica, 2013; Cronin, 2013). I am using the word “indicator” to apply to the highest-level unit that is measured by the indices: education, health, safety, and so forth (see Table 1). Different indices use different names for this, and these highest-level units are typically subdivided. For example, the GNH Index tracks nine categories with a total of 33 subcategories. The “Community Vitality” indicator in the GNH Index is subdivided into *Social Support*, *Community Relationship*, *Family*, and *Victim of Crime* (CBS, 2011). The surveys themselves, and the weights assigned to various answers during statistical analysis of the results, provide the policy makers with a way to monitor, assess, and appraise the effectiveness of

policies (Dolan et al., 2011). Where possible I have edited the labels in the indicators column to account for overlap in the way different indices label the same thing. For example, *Psychological Wellbeing* (GNH), *Experienced Wellbeing* (Happy Planet Index), and *Personal Wellbeing* (UK's National ONS Wellbeing Index) are all accounted for under the indicator "Wellbeing."

In Table 1 on the following pages, you can see what each of the selected indices is measuring, by indicator. Indicators that appear most frequently are: Health (9 of 14 indexes measure this); Environment (9 of 14, when Environment, Ecological Footprint, and Climate Policy indicators are grouped together); and Education (7 of 14). Surprisingly missing from this list is an explicit indicator for Religion or Spirituality, though it is a subcategory in Bhutan's GNH. I point this out given that many of the world's current sources of conflict and illbeing are centered around religious wars (Huntington, 1996). A metric around the relationship between wellbeing and religion might provide deeper insight into the nature of those conflicts.

Table 1. Indicators by Index, Page 1 of 2

	AUSTRALIA UNITY WELLBEING INDEX 2001	CANADIAN INDEX OF WELLBEING 2011	GALLUP- HEALTHWAYS WELLBEING INDEX 2008	GENUINE PROGRESS INDICATOR 1995	GROSS NATIONAL HAPPINESS INDEX 2008/2010	HAPPY PLANET INDEX 2012	LEGATUM PROSPERITY INDEX 2007
Total Number of Indicators Tracked	7	8	6	4	9	3	8
Achievement/Accomplishment	⊙						
Basic Access			⊙				
Climate policy				⊙			
Community vitality	⊙	⊙			⊙		
Culture		⊙			⊙		
Ecological footprint/diversity				⊙		⊙	
Economy							⊙
Education/skills		⊙			⊙		⊙
Engagement			⊙				
Entrepreneurship/Opportunity							⊙
Environment		⊙		⊙	⊙		
Future Security	⊙						
Governance		⊙			⊙		⊙
Health	⊙	⊙	⊙		⊙		⊙
Housing							
Income/Personal finance							
Jobs							
Life expectancy						⊙	
Meaning							
Personal freedom							⊙
Political/Civic engagement							
Positive Emotions/Emo. Health			⊙				
Wellbeing					⊙	⊙	
Quality of Life/Life Satisfaction			⊙				
Relationships	⊙						
Safety	⊙						⊙
Social Capital							⊙
Standards of living	⊙	⊙			⊙		
Sustainable economics				⊙			
Use of time		⊙			⊙		
Work-life balance							
Working life/What we do			⊙				

Table 1. Indicators by Index, Page 2 of 2

	OECD BETTER LIFE INDEX 2011	PERMA- PROFILER 2013	SM LOCAL WELLBEING INDEX 2013	SOCIAL PROGRESS REPORT (FRANCE) 2009	STATE OF THE USA 2010	UK NATIONAL WELLBEING INDEX 2011	UN HUMAN DVLPMT INDEX 1990
Total Number of Indicators Tracked	11	5	Not available at this time	8	Not available at this time	10	4
Achievement/Accomplishment		⊙					
Basic Access							
Climate policy							
Community vitality	⊙					⊙	
Culture							
Ecological footprint/diversity						⊙	
Economy						⊙	
Education/skills	⊙			⊙		⊙	⊙
Engagement		⊙					
Entrepreneurship/Opportunity							
Environment	⊙			⊙			
Future Security							
Governance						⊙	
Health	⊙			⊙		⊙	⊙
Housing	⊙						
Income/Personal finance	⊙						
Jobs	⊙						
Life expectancy							⊙
Meaning		⊙					
Personal freedom							
Political/Civic engagement	⊙			⊙			
Positive Emotions/Emo. Health		⊙					
Wellbeing						⊙	
Quality of Life/Life Satisfaction	⊙						
Relationships		⊙		⊙		⊙	
Safety	⊙			⊙			
Social Capital							
Standards of living				⊙		⊙	⊙
Sustainable economics							
Use of time							
Work-life balance	⊙						
Working life/What we do				⊙		⊙	

Wellbeing Index: The Whys

“In many spheres of human endeavor, from science to business to education to economic policy, good decisions depend on good measurement. – Ben Bernanke (2012)

There is clearly interest growing in these wellbeing metrics. Why is there interest in this? I turn back to a bit of history, to see how the wellbeing indices have arisen. Much lies in contrast to perhaps the current most important indicator of societal function – gross domestic product.

A Happiness Imperative

We have wandered far from Aristotle’s (1985) assertion that *eudaimonia* “is an activity of the soul expressing virtue” (p. 22). McMahon (2012) points out that the term *eudaimonia* actually contains a hint of otherworldliness in the form of divine rewards or punishment. But to the philosophers of old, the search for the flourishing life was an act of purpose, not chance; it was the highest good to pursue. The philosophical discourse on happiness of Socrates, Plato, and Aristotle in the fourth and fifth centuries BC, or the Epicureans and Stoics in the wake of Alexander, told us exactly what society needs to monitor in order flourish. Human beings could, they believed, exercise considerable control over the fate of their lives by living virtuously (McMahon, 2012).

It was not until the Enlightenment that happiness shifted to what Peter Stearns (2012), professor of history at George Mason University, refers to as “modern Western happiness” (p. 106): the rise of a sort of happiness imperative – from the province of a lucky few, to a divine right, an expectation, to which all were entitled – something “less fortuitous than fortune, less exalted than a millenarian dream” (McMahon, 2006, p. 177). Before then, happiness was sought and attained by a relative few (McMahon, 2012). And it was also during the Enlightenment that we witnessed three high-profile assertions that happiness and government are inextricably linked, at the level of the individual.

The purpose of government: To create happiness for its people. The first assertion comes from the small and pristine country of Bhutan. The legal code, known as the 1729 legal code, under which the leader Zhabdrung Rimpoche had ruled the country, stated that “if the government cannot create happiness for its people, there is no purpose for the government to exist” (Ura et al., 2012, p. 6). In 1972, His Majesty Jigme Singye Wangchuck, the Fourth King of Bhutan, responding to the realities of modernization and growth returned to that philosophy, bringing it forward as an animating force to balance necessary economic development with the need to preserve those traditions that nurture the Bhutanese view of happiness. He called it “the pursuit of Gross National Happiness (GNH)” (Ura et al., 2012, p. 6). Several decades later, in 2008, after the constitutional monarchy was established, the Fifth King, His Majesty Jigme Khesar Namgyel Wangchuck, called for the creation of a multidimensional index (the GNH Index) to measure Gross National Happiness as a way to continue the policies and advance the values that ensure the country’s collective happiness. The Bhutanese believe that, at its core, happiness can come only from living in harmony with nature, living in service to others, and knowing our own minds and potentialities (Ura et al., 2012).

The pursuit of happiness is an unalienable right. The second assertion during the Enlightenment comes from Thomas Jefferson. In 1776, Jefferson penned the following American anthem: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness" (Wills, 1978). Historians have traced the origins of the phrase “pursuit of Happiness” to John Locke’s *Essay Concerning Human Understanding*. According to Locke (1690/1964), “the necessity of pursuing happiness [is] the foundation of liberty” (p. 223). While subsequent generations of Americans have interpreted that phrase *pursuit of happiness* for

personal ends – to support their right to own slaves, to vote, to own their own home, or to marry a partner of the same gender, etc. – Jefferson’s use of the phrase came from a philosophical pedigree. He was invoking the Aristotelian tradition that happiness and civic virtues – courage, moderation, justice – are inextricably tied. As such, they engage the collective, specifically government, in the social, not just the individual, aspect of the pursuit of happiness (Hamilton, 2008).

Happiness can be measured. Finally, the Enlightenment saw the first attempt at measuring – in a rational and scientific sense – happiness. British philosopher and social reformer Jeremy Bentham (1781) suggested for the first time a procedure for measuring the moral status of any action – a classification of 12 pains and 14 pleasures rated by their *utility* for either producing pleasure and happiness or for preventing pain and unhappiness. Bentham’s philosophy of utilitarianism was that pleasure and pain govern not only how human beings act but also how human beings *ought* to act. We ought to do that which will bring about the greatest good for the greatest number of persons. The implications of utilitarianism are that government can and should legislate on the basis of this principle (1781).

Some ancient uses of the word “happiness” have been found to be aligned with concepts of luck or fortune – external conditions (McMahon, 2006; Oishi et al., 2013). However, current research reveals that cultural variations in happiness concepts must be taken into consideration as we develop and interpret indices that measure wellbeing (Oishi et al., 2013).

Governments that speak of adopting “happiness” as a policy goal – from the western democracies to eastern cultures like Japan, China, and Bhutan (Diener, Lucas, Schimmack, & Helliwell, 2009), must deliberately and precisely articulate their conceptualization of happiness for that culture and maintain a heightened sensitivity to similar terms, like “wellbeing” and “life

satisfaction”, as they are used around the globe (Oishi et al., 2013).

The Economics of Wellbeing

Surrounding much of the impetus for these wellbeing indices lays the history of the story’s antagonist – the gross domestic product (GDP), along with the gross national product (GNP). For the world’s developed countries, the GDP remains the key national indicator of economic health; but its reign as the sole measure of national wellbeing is today being challenged.

Before the GNP and GDP were created, the time-honored gauge of a nation’s relative performance was ranking by military victories (Fox, 2012). Today, most of the developed countries – those that are members of the Organization for Economic Co-operation and Development (OECD) in particular³ – have come to rely on the GDP as the most widely used measure of national health (OECD, 2011). To understand how the GDP acquired its stronghold on the world’s view of its metrics, and to put its contributions into perspective, we need to return to the early 1930’s and the time of the Great Depression. In crisis, the federal government of the United States was struck by how few real indicators of economic information existed. Simon Kuznets, a Russian-born economist who went on to win the Nobel Prize in economics, helped the U.S. Department of Commerce design a standard for measuring gross national product (Gertner, 2010).

According to William Nordhaus, a Yale economist who thinks about economic measurement for a living, “the GDP... is one of the greatest inventions of the 20th century...it is an awesome thing” (Gertner, 2010, p. 2), enabling the government to make an informed policy

³ The OECD has 34 member countries spanning the globe, in North America, South America, Europe and Asia-Pacific. The OECD is predominantly comprised of the world’s most advanced countries, with some developing countries (Mexico, Chile and Turkey, e.g.) (<http://www.oecd.org/general/listofocdmembercountries-ratificationoftheconventionontheoecd.htm>).

response to economic crisis. For example, in 2008 the U. S. government was able to quickly put a stimulus package in place.

But GDP is a measure of market production, not living standards. There is a growing consensus among economists such as Stiglitz and his colleagues (2009), who have worked together to provide alternative measures to the GDP, that too much focus on the GDP can mislead us into thinking people are better off than they are. We risk making erroneous policy decisions as a result. While the GDP does well with economic growth indicators, it cannot account for nuances; it is context insensitive. The GDP, therefore, may not only *not measure* the subjective markers with which we experience wellbeing, it masks and misleads.

Here is an example to illustrate this⁴.

Let us say I am working on my capstone and I decide I want a snack. I have nothing in the refrigerator, so I get on my bike and ride over to the farmer's market in my neighborhood. I buy a locally grown apple for a dollar, ride my bike home, and drink a glass of water from the kitchen tap. Since I rode my bike, bought something locally grown, and drank water from the tap, the GDP would record my impact as a little more than a dollar and change.

Now, say I decide to run the same errand, but I drive my car instead. I go to the local Mega Market, buy a kiwi and a bottle of Evian water, and then drive back home. By driving my car, I have consumed gas that will need to be replaced: let us call that \$5.50; the Mega Market has marked up the kiwi I bought to \$2 to cover the cost of importing and stocking it; and the bottle of water cost me a whopping \$2.50. The GDP registers all that as \$10, a tenfold increase in the GDP indicator, errand over errand. On this metric alone, it looks like my second errand has

⁴ Adapted from a PBS animation, Well-being In the New Economy (<http://video.pbs.org/video/1639674622/>).

actually caused the economy to grow and prosper. But not so fast. For what is essentially the same errand, let us look at what happens in context on the other side of the scorecard.

Driving instead of biking adds pollutants to the environment. Buying at the Mega Market only encourages its huge carbon footprint required for it to stock, package, and maintain so much inventory to serve so many types of buyers. The kiwi and the water have come all the way from New Zealand and France, respectively, and, along with production of the plastic bottle, consume fossil fuels in production and transport. The bottle itself will likely end up in a landfill, where it will fail to decompose.

What is more, if I were to be injured in a car accident on my way home from the store, the GDP would have a field day adding on the economic impact of the ambulance, the emergency room, prescription drugs and doctor bills. What would, for me, seriously erode my subjective wellbeing, would look through the lens of the GDP as economic prosperity.

This is perhaps an extreme example, but it makes the point. While the GDP tallies the economics of our lifestyles, and can continue to play that role, we must think of it, at best, as wellbeing neutral. Indeed, evidence linking GDP and life satisfaction is inconclusive (Thomas & Evans, 2010).

Looking at GDP alone cannot tell you what is happening at the level of the typical person (Stiglitz et al., 2009). To illustrate this point, Stiglitz asks us to imagine that we are driving a type of odd car that has only one gauge on its dashboard instead of the usual array. He likens that single gauge to the GDP. Now say we want to know how the car is functioning. This car's dashboard's single gauge conveys only one piece of data – our speed, for example. That is a really useful indicator to have, but if it is the only indicator, there is a lot we do not know for sure: how much gas do we have left? How far can we go on that fuel? How far have we gone

already? We want a car – and, Stiglitz argues, a country – that has a big dashboard, but not so big that it is overwhelming and therefore useless (Gertner, 2010). The wellbeing index is that dashboard.

Beyond GDP

In 1968, Robert Kennedy addressed a college audience at the University of Kansas from his perspective on the presidential campaign trail. He noted: “Too much and for too long, we seem to have surrendered personal excellence and community values in the mere accumulation of material things. Our Gross National Product...counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage...special locks for our doors and the jails for the people who break them...Yet the gross national product does not allow for the health of our children, the quality of their education or the joy of their play” (Kennedy, 1968, para. 1).

By 1968, we seem to have diluted the philosophically grounded belief that a flourishing society stems from each human being’s ability to control a great deal of their wellbeing by living virtuously. By the time Robert Kennedy made his oft-quoted speech about the GNP, and in the aftermath of World War II, the gross national (now “gross domestic”)⁵ product prevailed as the specific measure of national wellbeing. But the GDP is simply the dollar value of a country’s economic output. To Kennedy’s point, it is a blunt instrument for measuring national wellbeing.

Then how can we measure what does matter to us? A consistently stated rationale for governments investing in the measurement of wellbeing, across every index I encountered, is what I think of as the fulcrum argument. Policymakers want to balance, as if on a fulcrum, the economic and material growth on one hand with the preservation of intangibles – the more nuanced things that we value, such as the environment, the culture, and the people’s quality of

⁵ The U.S. used Gross National Product (GNP) as its basic economic metric until 1991, when it switched to GDP.

life – on the other. In its introduction to the 2012 Prosperity Index, Legatum Institute, an independent non-partisan public policy research organization, says, “Most people would agree that prosperity is more than just the accumulation of material wealth, it is also the joy of everyday life and the prospect of being able to build a better life in the future” (<http://www.prosperity.com/Methodology-What.aspx>, col. 1, para. 1).

According to Helliwell and Barrington-Leigh (2010), “Changing the balance of what is measured and reported on a regular basis is likely to change the nature of policy thinking among both policy-makers and those living with the policy results” (p. 736). What I am calling the global wellbeing-measurement movement – sometimes referred to as “the economics of happiness” (Bernanke, 2010, p. 4, Fox, 2012) – began its evolution when social science, long practiced in the art of asking people around the world to rate their life satisfaction, joined forces with economic science to expand the limits of the current material view.

Money Does/Does Not (Choose One) Buy Happiness

For centuries, the best way for an individual to increase wellbeing was to increase income at the micro and mesosystem levels. Expanded wealth means expanded options for self, family, and community (Liberal Democrats, 2011). This assumes the government has done its job of running interference at the macrosystem level, establishing the necessary rules, regulations, and programs and eliminating the inequities.

The relationship between life satisfaction and income is well-traveled ground: much studied, sometimes challenged, and even hotly debated (Martens & Stephenson, 2013). At the center of the debate is the Easterlin paradox, formulated by economist and University of Southern California professor Richard Easterlin (1974). Easterlin found, in international comparisons of prosperity, that the rich are generally happier than the poor, though once basic

needs are met, neither GDP growth nor higher GDP per capita increases happiness. He also found that people judge their lives to be better the richer they become (Easterlin, 1974). Since 1974, researchers have challenged the findings (Kahneman & Deaton, 2010; Stevenson & Wolfers, 2008), tempering Easterlin's conclusions with a more recent finding: that in many countries rising standards of living do in fact raise life satisfaction – to a point. People seem to have a set point beyond which increases in income (about \$75,000 a year for a family of four in the United States) do not relate to greater levels of happiness (Kahneman & Deaton, 2010).

Research conducted in the U.S., the United Kingdom, Mexico, Ghana, and Sweden supports the general conclusions of Easterlin at the mesosystem level; as individuals get richer during their lifetimes, they do not necessarily become happier (Sherman 2013). OECD's Better Life Index supports the Easterlin paradox at the exosystem level. The countries that scored the highest (Denmark scored number 1, while the United States did not break the top 10) are those that embrace work-life balance and a shorter workweek (Sherman, 2013). Work-life balance and use of time are wellbeing indicators measured by a number of indices.

The implication for governments who take wellbeing measures into account when setting policy is that the policy should not focus on economic growth once basic needs are met, but on ways to address the wellbeing gaps in order to sustain or increase wellbeing (Martens & Stephenson, 2013). That is where wellbeing indices can play a crucial role. They tell us that, in addition to making a living, people value their health, the environment, their leisure time, and so forth. Economic growth can seed better medical care, clean air and water, and more funding for arts and culture (Bernanke, 2010). The implication for the entire ecosystem is that the microsystem and the exosystem, working together, have the potential to create an upward spiral of wellbeing.

The Wellbeing Index: The Wheres

“The duty of our government must be to ensure that...the happiness and wellbeing of our people are nurtured and protected. Our government must be human.”

—His Majesty the King Jigme Khesar Namgyel Wangchuck, the Fourth King of Bhutan (2012)

The indices discussed here and detailed in Appendix 1 clearly demonstrate that many resources are being spent thinking about turning the conversation from one of economics to one of wellbeing. This is only the beginning. In 2013, the city of Santa Monica, which I call home, became a winner in the Bloomberg Philanthropies’ Mayors Challenge (Anderson, 2013). They are working, with the Positive Psychology Center at the University of Pennsylvania among others, to create a Local Wellbeing Index that measures wellbeing for Santa Monica and that will be replicable to other cities in the country. Their winning elevator pitch makes a case for the index as a tool for better governance:

The wellbeing of people matters. Cities can make changes to significantly improve the conditions that lead to wellbeing, but only if they have strong and useful tools needed to do so. We believe the *Local Wellbeing Index* is what has been missing from the toolkit of good governance. Thanks to the success of this Mayors Challenge project, cities of the future will wonder how we ever operated without it (City of Santa Monica, 2013, p. 2).

In this last section, I turn to the *wheres* of wellbeing indices: where such measurement initiatives are going, and where their potential fully lies.

Does Measuring Wellbeing Drive Economic Performance?

Inevitably, when we go down the road of measuring anything, the question arises: “So what?” What is the return on investment if money and effort are put into creating statistically rigorous measures of wellbeing (Butler & Kern, 2013; UK ONS, 2010; Stiglitz et al., 2009; Ura

et al., 2012)? What does it buy us? We know, thanks to Easterlin and company (1974), that money does not buy happiness. But does happiness *result in* money? In other words, even though individual wellbeing might not correlate with income, does focusing on wellbeing have an economic impact at the communal level?

While numerous wellbeing measures exist, and data is being amassed against any number of indicators with increasing regularity, there do not appear to be any validated wellbeing instruments, let alone those that link wellbeing to driving financial outcomes (Bronsteen, Buccafusco, & Masur, 2012; Butler & Kern, 2013). Since measuring wellbeing is an evolving construct, much work will have to take place over time for that to happen. That said, it is appropriate to want to link measured wellbeing to results, economic and otherwise, even as the initial indices are being deployed. I will begin to set up that conversation here.

While returns on investment have not been measured credibly in terms of dollars and cents, there are at least some ways that returns are beginning to be realized, if not in monetary terms, I will argue, in social terms.

Wellbeing Analysis

Researchers have recently been studying alternatives for measuring the consequences of legislation on the quality of people's lives. For example, well-being analysis (WBA) – which Bronsteen and colleagues (2012) liken to a cost-benefit analysis process adapted for wellbeing measurements – assesses a particular law's positive or negative impact on quality of life. WBA is designed to produce one specific answer: whether a law will increase or decrease people's life experience. For example, does a clean-air bill return better health measures to citizens? Heretofore, measuring the cost-benefits of wellbeing was considered impossible. The proponents of WBA now argue that it has been made more feasible by the emerging field within social

science of “hedonic psychology” (Bronsteen et al., 2012, p. 1608) – the study and measurement of how people experience either improvements or declines in the events in their lives. Quality of Life Survey is an example (Diener & Suh, 1997; Bronsteen et al., 2011; Kahneman, Wakker, & Sarin, 1997). Bronsteen claims that results have been replicable, making it possible to measure a form of ROI. The U.N., Cameron from the UK, Sarkozy of France have all expressed interest in connecting measurable social science with policymaking (Bronsteen et al., 2011; Stratton, 2010).

In the meantime, each index reports on its ROI differently depending on the problem they are trying to solve. I encourage you to follow up on specific programs of interest using the links provided in Appendix 1. Here I will offer some ways that indices are driving results that we can look toward in the future.

Minding the Gaps and Goalsetting

The time-honored metrics supplied by the GDP are not going away any time soon, but the wellbeing indices can partner with the GDP to shine a light on the gaps – those parts of the population that policies and programs have not quite reached. Canadian statistician John Helliwell (2010) notes, “Next time we have a comprehensive spending review, let's not just guess what effect various policies will have on people's wellbeing. Let's actually know" (as cited in Stratton, 2010, p. 1). For governments to do that, I turn to goal-setting scholar, Edwin Locke (1996), whose study of goal-setting theory over 30 years can possibly be applied at the exosystem level.

According to Locke (1996), “most people have learned, by about the age of 6, that if they want to achieve something they have to “pay attention to it to the exclusion of other things, exert the needed effort, and persist until it is achieved” (p. 120). In other words, indices may benefit from goal-setting research by lining up with what Locke tells us are the three top requirements of

an achievable goal: focus, effort, and duration.

Focus. Wellbeing indices may prove valuable in helping governments see where their efforts are most likely to pay off, providing information beyond what the GDP currently provides, thereby raising the base of working knowledge that can inform programs and policies. “Knowledge of the score” (Locke, 1996, p. 121) – in this case, measuring wellbeing and analyzing results – may impact the exosystem’s performance and its motivation to achieve its goals (Ryan & Deci, 2001). Further, identifying the policy or program gaps across populations is a form of what Locke (1996) would call negative feedback. Accordingly, he asserts, negative feedback enables goalsetting. It may therefore help the exosystem find the mechanisms and strategies to correct course and get back on track (1996). As an illustration of this, when Canada launched its Canadian Index of Wellbeing (CIW), they were surprised to find that economic growth had far outpaced Canadians’ wellbeing (<https://uwaterloo.ca/canadian-index-wellbeing/about-canadian-index-wellbeing>). This enabled them to retrench. According to a message from the CIW co-chairs: “A year [after we launched our first index] we are now able to track the significant impact the 2008 recession has had on the quality of life of everyday Canadians” (para. 1).

How much time do people spend sitting in traffic jams? What is the ratio of working hours to leisure time? Are men and women treated equitably at work? These are some of the questions that Sarkozy and Cameron, among others, are gathering data about (Stratton, 2010). In seeking answers to these questions, institutions continually evaluate whether people are helped or harmed, but they do not always get an objective answer. Instead, their investments are subject to opinion leaders, lobbyists, and partisan politics. But one day it may be possible to know that wellbeing is related to one set of answers, and illbeing is related to the opposite; then national

policy decisions could be shaped based upon the data and not by guessing or by yielding to the undue influence of politics (Bronsteen et al., 2012).

If individuals see that their government is embracing a wellbeing index in order to place better bets on social programs that meet their needs and priorities, “that fact alone,” says Eckersley, can restore “people’s belief in a broader social ideal and a commitment to the common good” (Eckersley, 2009, p. 7). In Australia, the Australia Unity Wellbeing Index provides its citizens with this vision statement, highlighting for the populace their areas of focus:

We **imagine** a nation where all Australians live with the greatest possible personal and community wellbeing.

We **are** an independent mutual company that operates on commercial principles with a social purpose and is governed by our members.

We **play our part** in building community.

We **reinvest** our profits into wellbeing products and services.

We **reach** as many families as possible with high trust products and services.

Our ambition is to **become** Australia’s leading wellbeing company.

Our strategy is to **build** a leading, commercial, sustainable, portfolio of businesses that foster wellbeing.

Wellbeing is at the heart of everything we do (<http://www.australianunity.com.au/about-us/Company-overview/Essence>, 2013).

The presence of a wellbeing index itself becomes a driver toward the cultivation of wellbeing (Eckersley, 2009). Goalsetting theory supports the evidence that, while wellbeing indices do not at present drive direct financial performance, those indices that engage the public in a “motivational principle of fundamental importance” (Locke, 1996, p. 123) in the ways described above, and many more that are being discovered, stand the best chance of gaining traction to achieve the results they envision. Any tools that study the returns on policymaking are

by definition imperfect (Eckersley, 2009). However, wellbeing indices are continually moving toward more precision and refinement (Bronsteen et al., 2012).

Effort and duration. Locke (1996) also provides key findings, which support the value of setting goals that are aspirational. The more difficult the goal, the more persistent effort we will apply, so the messaging around wellbeing has to be carefully crafted to be both aspirational as well as attainable.

As an example, Bhutan expresses its concept of Gross National Happiness with a four-pillars message: *good governance, sustainable socio-economic development, cultural preservation, and environmental conservation* (Ura et al., 2012, p. 9). The public can remember these four pillars even if they do not track the nine specific indicators and 33 subindicators of the GNH Index, enabling citizens to do their part in each of the for areas for Gross National Happiness.

Seligman's PERMA – which stands for positive emotion, engagement, relationships, meaning, and accomplishment) is another good example of this principle. The acronym is easy to remember once it is grasped and can be ticked off the fingers of one hand for each element of wellbeing. As we will see, Jonah Berger (2013) calls these types of messages “triggers” (p. 23), memorable information to keep a message at the top of the mind and easily recallable.

The Wellbeing Index As a Grand-Scale Positive Intervention

“Give me a lever and a place to stand on and I will move the Earth.” – Archimedes

As positive psychologists, our “place to stand on” in Archimedes' terms is at the intersection of the past and future, facing the future, not the past; and our “lever” is the positive intervention, specifically, for this discussion, the wellbeing index.

Defining Positive Interventions

Positive interventions are intentional thoughts and actions aimed at achieving a desired outcome as a means of increasing wellbeing; their purpose is to help people flourish (Pawelski, 2012). To be complete, positive interventions have a *theoretical, empirical, and experiential* backbone and they unfold from the desire for things to be different than they are (J. O. Pawelski, personal communication, September 5, 2012). Through the lens of positive psychology, the desired difference is an increase in wellbeing.

Is it possible to increase wellbeing? In the beginning, positive psychology sought to answer that question at the individual level. In the past decade, Sin and Lyubomirsky (2009) concluded, through their meta-analysis of empirical studies of some fifty positive interventions, that the individual positive interventions studied did, in fact, increase wellbeing and decrease depression for many types of people in many different circumstances, though not in all situations; work must continue at the individual level. And we now also know some of the factors that influence their measured impact: frequency, duration, intrinsic motivation, person/activity fit, and variety (Layous & Lyubomirsky, 2012; Schueller 2010). Once it was empirically determined that positive interventions might in fact be effective in increasing wellbeing, the first generation of positive interventions was born. However, the pace and progress for the creation and adoption of empirically vetted positive interventions at the individual level has been admittedly slow (Pawelski, 2012). Thus, if the positive intervention is our tool-of-choice for shifting the majority of the globe to a state of flourishing and wellbeing, we need to introduce interventions that can move whole groups of people, whole populations, not just one individual at a time. The wellbeing index fits the bill as a potential positive intervention.

At the societal level, for positive interventions to really have an impact, we need a new form of positive intervention, one that is designed to be not just “interruptive,” but *disruptive* and *contagious*, on a global scale. Both terms, disruptive and contagious, have their origins in the technology revolution of the past twenty years and I suggest that the wellbeing index has the potential to be both.

Disruptive. For a positive intervention to be “disruptive” I mean for it to replace our current behaviors in such a way that we will never go back. “Disruptive” borrows from a concept in the high technology arena. Bower and Christensen (1995) coined the term “disruptive innovation” to describe something that is so much better than the previous product or process it has replaced that that thing fades from our expectation and experience. For example, in 1908, Ford introduced the mass-produced and therefore affordable automobile, the Model-T, which disrupted transportation by horse-drawn carriage.

Computers and telecommunication technologies have disrupted many aspects of our lives. Consider the multiple disruptions made on bank operations since 1968, when I got my first after-school job and bank account. In those days, I went in to the bank during specific hours of operation, removed a physical paycheck from an envelope that had my name typed on it with a typewriter. I handed my deposit over to a teller, who handed me some cash back. Then she updated her ledger while I updated my bank balance in my bankbook with a pen. I then passed by a security guard as I left the branch. Fast forward to the present day: my paychecks can be direct deposited, bypassing the ATM, which was itself once a disruptive technology. I use my mobile phone to deposit additional physical checks I receive. I use the Internet to get an update of my bank statement, pay most bills, and, a couple times a year, file my quarterly taxes. There is an ATM on every street corner if I ever need cash, which, increasingly I do not, and I just paid

my mobile phone bill using my mobile phone. On the odd occasion when I actually go into a bank branch these days, I am shuttled into an automated queue in full view of security cameras tracking my every move, along with those of the few remaining humans still acting out the vestiges of a vanished custom once known as “going to the bank.”

A disruptive positive intervention is one that increases wellbeing while changing how we do things so that we would not even consider going back. The wellbeing index potentially can be disruptive in that it replaces once and for all the current and insufficient ways we measure what we measure (in this case, the GDP). It may be seen to alter the original intention of the intervention in an unforeseen yet positive way.

Contagious. With today’s social media reach, positive interventions have unique opportunities to go viral. Christakis and Fowler (2010) illustrate this in a study they conducted during the influenza outbreak at Harvard in 2009. Their goal was to understand how to detect and curtail contagious outbreaks in situations where the indicators of contagion typically lag behind the spread of the epidemic. They wondered if they could improve early detection by leveraging human social networks, believing, based on their previous findings, that since a contagion infects some individuals and then spreads person to person, it tends to reach individuals at the center of a network sooner than peripheral or random members of any given population. This is because central people are fewer degrees of separation away from the average person in the network. The possibility for contagious spread between people with social ties is typically much greater than between strangers. Their hypothesis, then, was that the social network itself is a vehicle for the spread of any outbreak. To conduct the experiment, they enrolled 744 undergraduate students, identified their friendship ties through social media platforms, and tracked their incidence of flu during the first semester of the school year. They

carefully collected information from a sample of central individuals within human social networks in order to detect and intervene upon contagious outbreaks *before* they happened in the population-at-large.

Rather than monitor the intricacies of the entire network, which would have been too time-consuming and costly, they decided to simply monitor the friends of the people who got the flu, taking advantage of a human-social-network phenomenon known as “friendship paradox” (Christakis & Fowler, 2010, p. 2; Feld, 1991), which finds that your friends have more friends than you do. They found that by monitoring the central individuals: “The progression of the epidemic in the friend group occurred 13.9 days (95% C.I. 9.9–16.6) in advance of the randomly chosen group (i.e., the population as a whole). The friend group also showed a significant lead time ($p < 0.05$) on day 16 of the epidemic, a full 46 days before the peak in daily incidence in the population as a whole” (Christakis & Fowler, 2010, p. 1).

We can use this understanding of contagion for positive interventions, since the principle underlying their findings is not limited to *biological* spread of infection. The findings can be generalized from the flu to “psychological, informational, or behavioral contagions that spread in networks” (Christakis & Fowler, p. 1). As wellbeing index designers collect and catalogue empirical data, they can deliberately leverage social networks – electronic and human – to encourage the rapid spread of desirable conditions and to discourage and limit deleterious conditions.

According to Wharton’s Jonah Berger (2013), several factors need be considered in ensuring an intervention is contagious. Here is a checklist which we can apply; using the acronym STEPPS:

- **Social currency:** we share things that make us look like good people.
- **Triggers:** easily memorable information means it is top of mind and tip of the tongue.

- **Emotion:** when we care we share.
- **Public:** built to show, built to grow.
- **Practical value:** news people can use.
- **Stories:** all great brands also learn to tell stories. (Berger, 2013, p. 22).

The wellbeing index can be contagious in that it has all the ingredients of STEPPS, as I have shown throughout this paper. A ripple effect can be discerned beyond the immediate wellbeing produced and it has the ability to spread virally, three degrees out from its center (Fowler & Christakis, 2008).

An applied example. As a simple illustration of how naturally these concepts of “disruptive” and “contagious” align around the wellbeing index, let us return to the City of Santa Monica, and their winning Mayors Challenge proposal, a Local Wellbeing Index. In their application, the city stated (brackets and italics added for emphasis):

The wellbeing of people matters [*social currency*]. Cities can make changes to significantly improve the conditions that lead to wellbeing, but only if they have strong and useful tools needed to do so [*practical value*]. We believe the *Local Wellbeing Index* is what has been missing from the toolkit of good governance [*public*]. Thanks to the success of this Mayors Challenge project [*stories*], cities of the future [*contagious; public*] will wonder how we ever operated without it [*disruptive*]” (City of Santa Monica, 2013).

From the outset, Mayor Pam O’Connor’s (2013) vision has been to create something that is both disruptive and contagious: “Our Local Wellbeing Index is going to be a *game-changer* [*disruptive; triggers*] not just for Santa Monica, but for cities across the country and beyond [*contagious*]” (Anderson, 2013, p. 1).

Philanthropist and Mayor of New York City Michael R. Bloomberg, whose philanthropy

created the Mayors Challenge, shares that vision at the governmental level, noting: “Santa Monica can be a real pioneer [*disruptive; emotion*] in this effort, and Bloomberg Philanthropies is eager to see Mayor O’Connor’s idea become a model for the country [*contagious; public*]” (p. 1).

The Five Elements of a Grand-Scale Intervention

Beyond being disruptive and contagious, I believe this “group-level” positive intervention also needs to have three additional elements that distinguish it, to make it truly a positive intervention (and not simply disruptive and contagious).

Balancing humanity with science: A 3 to 1 Humanity Ratio. Borrowing from Barbara Fredrickson’s (2009) positivity-to-negativity ratio, I propose an analog to the positivity ratio: a 3 to 1 humanity-to-science ratio. The intervention must combine at least one of the humanities with empirical scientific study. So how do you find the balance? In every key decision, incorporate three humanity-based criteria to every one scientific. As an example to illustrate this point, let’s imagine Company Z is facing a short-fall in revenues and must cut costs in order to make their shareholders happy. The company’s leaders decide that they need to cut headcount; employees at all levels will be scrutinized through the same lens. They choose financial performance as their criteria for their first wave of layoffs and they reduce their executive ranks by 10% on the basis of sheer numbers alone: did this executive and his or her team make their plan or not? In deciding who to cut the decision makers do not factor in the *humanity* of these executives: how much social capital they had amassed during their tenure, how beloved they were by their teams, and the longstanding loyalty of and to their client accounts. Within the year, Company Z now realizes their error, as the laid-off executives land in new jobs and attract away both high-performance clients and employees. Had Company Z applied a 3:1 humanity-to-

science ratio, they would not now be scrambling, too late, to rehire or replace the leadership qualities that were lost.

Imagine what a 3:1 *humanity* ratio might yield at the macrosystem level: innovation, high morale, social responsibility, a flourishing company, culture, community, and world. In this way, the humanities can aid the scientific pursuit of human flourishing by creating the culture, practices, and beliefs that generate a positive, people-oriented exosystem.

Delivering primary wellbeing. The beneficiary of the intervention – the direct participant – experiences an upward positive spiral of wellbeing along the full-PERMA spectrum (positive emotions, engagement, relationships, meaning, and accomplishment; Seligman, 2011).

As an example, I turn to my MAPP experience. I have argued over the past semester that the MAPP program is a form of disruptive and contagious positive intervention. MAPP is disruptive, in that it has invited me to completely refocus my professional life using the tools and knowledge learned in the program. I can never return to my previous professional thinking because the learning of the past year has changed me. I view it as contagious because my fellow classmates and I can now engage in a thoroughly researched conversation about the many applications of positive psychology. In *Flourish*, Seligman (2011) describes how he came to form the program, accepting applicants across a wide set of domains from coaching to medicine to journalism, in order to plant the seeds of positive psychology. In discussion, he indicated that he expected his students to carry their learning into our own personal and professional networks (M. E. P. Seligman, personal communication, March, 22, 2013). MAPP has certainly delivered primary wellbeing to me in the form of fully loaded PERMA: the positive emotions and engagement of learning new material and excelling at writing; the lasting relationships I formed with my classmates whom I admire and have learned from and whose company I enjoyed; the

meaning, for me, of receiving a Masters degree – a feat I thought I had missed my chance for when I was younger and life got in the way of my advanced education; and the accomplishment of doing well both in class and by bringing my learning back into my professional life through consulting and teaching.

Delivering *secondary* or *vicarious* wellbeing. The individuals who are one-degree removed from the center of the intervention – the originators, spectators, fans, coaches, partners – experience an upsurge of PERMA-related wellbeing as a result of being peripherally or vicariously involved.

As an example, I will stay with the MAPP analogy. My graduation in May was a high point among my extended family, friends, and clients. My daughter has begun to talk about going back to school for a Masters degree, six years out of her undergraduate years, citing the example I have set for her. My friends have celebrated and feted me, but in doing so, they have commented on how good they feel to have supported me in my journey. Even my clients continue to comment on how I have inspired them to undertake significant challenges that they thought they had set aside. To date my completion of MAPP has been credited with having inspired friends to train for a triathlon; start a company; move to a new city; and get a Ph.D.

Bringing these together thus suggests five elements of a grand scale positive intervention:

1. It balances humanity and science.
2. It delivers *primary* wellbeing.
3. It delivers *secondary* peripheral, or vicarious, wellbeing.
4. It has *contagion* impact at least three degrees out from its center.
5. It has *disruptive* potential.

In Table 3, I offer two examples of disruptive contagious positive interventions: (a) the Boston Marathon, before the bombings, as an idiographic icon of public humanities; (b) the wellbeing index as a general concept.

Characteristics	Examples of impact and influence:	Specific deliverables might be:
1. It balances humanities and science.	Marathon: <i>Humanity:</i> Public community event <i>Science:</i> Qualifying time; metrics over 26.2 miles	Covering the 26.2 mile race route from Hopkinton to Boston in your personal-best time.
	Wellbeing Index: <i>Humanity:</i> Citizens' wellbeing <i>Science:</i> Measurement of key indicators	Percentage contribution of happiness by gender. E.g.: 11.27% of all women report satisfactory time use in Pico neighborhood.
2. It delivers primary wellbeing.	Marathon: <i>Participant or originator:</i> Runners	Fitness; health and wellness of runner; Full PERMA-level wellbeing; savoring a personal accomplishment
	Wellbeing Index: <i>Participant:</i> Citizens or residents	Community diversity and inclusion through neighborhood cultural festivals.
3. It delivers peripheral or vicarious wellbeing.	Marathon: Supporters, fans, coaches, trainers, friends and family, of the runners; placemakers of the race and the city	Savoring the achievement and wellbeing of others: basking, luxuriating, thanksgiving, marvelling. Community celebration.
	Wellbeing Index: City policymakers can track what's working without having to guess and can effect changes that will make a difference to address gaps	Reduced homeless count in Santa Monica in 2013 through prevention, outreach, permanent housing, transitional housing and shelter, and supportive services shows that programs are working, increasing sense of doing good.
4. It has contagion impact at least three-degrees out from its center.	Marathon: Role modelling health and wellness, agency, self-efficacy, goal setting, self-regulation, etc.	Inspiring fitness in communities, mentoring, influencing the culture.
	Wellbeing Index: Bhutan's Gross National Happiness Index serves as an international model for other global movements.	A global conversation to promote sustainable, equitable and thriving societies around the world.
5. It has disruptive potential.	Marathon: Not just a road-race; legendary and iconic	Cultural impact as a fundraiser for major diseases
	Wellbeing Index: Provides a progressive alternative to current methods (GDP) that measures what counts.	A flourishing world by 2051: responsible growth that balances prosperity and sustainability

The Wellbeing Index of the Future

“You can see when push comes to shove, he’d say, ‘For God’s sake, let’s do something that changes the world.’”—Amartya Sen on Joseph Stiglitz (2009)

The global measured-wellbeing movement is just in its infancy. In this capstone, I have tried to make the case for one tool of choice, the wellbeing index, in all its current and potential forms. As I have discussed, measures of wellbeing have the potential to change the social and policy sciences in several fundamental ways, with economists taking seriously the methods of the social scientists, while the social scientists deliver to the economists robust and rigorously collected statistical evidence; each convincing the other, at last, to fully embrace the expansion of indicators beyond economic prosperity. Most relevant parties seem at least cautiously convinced on this score. What remains is to continue to build out the indices in their theoretical, empirical, and experiential backbones (Pawelski, 2012).

Emerging Influences

The growth and development of the wellbeing index in the future is bound to be shaped by three emerging technology-and-social-media-abetted trends: the quantified self; big data; and privacy. At the same time, its uses are predicted to expand across disciplines that go beyond governance and policymaking, for example, perhaps into our corporations, institutions, and schools. Now let us consider the wellbeing index of the future by looking at three interconnected, and interdependent technology-enabled trends.

The quantified self. The quantified-self movement is a means of measuring the things that contribute to the wellbeing of individuals, with social media users (like Facebook friends), and healthcare and fitness mavens at the early-adopter forefront of this trend. As it emerges, however, experts foresee its usefulness in helping informed individuals collaborate with the

institutions that inhabit their exosystems. Take healthcare as an illustration. According to medical researcher Melanie Swan (2009), social networks, direct-to-consumer personalized services, communities that gather to self-track, and clinics for preventive medicine are just some of the health-related ways that patients and the medical community – the microsystem and the exosystem – are partnering creatively to extend traditional models of general diagnostic and urgent care. The exosystem (e.g.; physicians and hospitals) provides specialized and qualified expertise while the microsystem and mesosystem (the patient and his or her family) bring their increasingly quantified self-knowledge of their own unique medical history and patterns. They not only now arrive in the doctor’s waiting room with the *feeling* something is wrong, they can arrive with the *data*. The slogan of the quantified-self movement – “an international collaboration of users and makers of self-tracking tools” – is “self-knowledge through numbers” (<http://www.quantifiedself.com>, para. 1).

Self-knowledge through numbers is nothing new in my household. My husband and I have been weighing ourselves daily for years. I have regularly tracked the miles I run in my training program, at first with pen and paper; increasingly via apps on my iPhone. What is new is the ease with which we can now digitally capture, track and share our actions, almost without effort. For example, we both wear Jawbone UP bands (<https://jawbone.com/up>) and upload our data a few times a day to see how many steps we’ve walked. Based on whether we are ahead or behind in the day’s plan, we incorporate new strategies to reach our goals. These devices, like many in the quantified-self movement, create wireless logs for us without much intervention on our part: they can show us where we have been, how long we were there, which days of the week are high-action days, which could use some focus. The data created by something as effortless as wearing a wristband every day not only quantifies my actions, it *accumulates* my patterns. It

knows me, perhaps, better than I know myself.

The implications of the quantified-self movement intersecting with the wellbeing-measurement movement are largely undefined, but one obvious intersection point is enabling more automatic self-reporting of life satisfaction. Self-reported happiness is a staple of positive psychology studies; smart quantifying devices may provide more objective data, with less self-conscious intervention, than is currently collected. A single metric has the potential to add value throughout the ecosystem. Something as simple as adding a smiling face versus a frowning face with a brief comment (e.g., “perfect temperature for five-miler,”) to my online log at the end of a run can a) provide a metric of wellbeing to the exosystem for those measuring something like best cities to run in; b) it can contribute to my mesosystem: my community of fellow runners around the country as we share our data run by run; c) it can store information that I can refer back to for my future runs. Thoughtful applications that relate the quantified self to happiness are emerging. Arianna Huffington, for example, recently launched her *GPS for the Soul*, an app that provides a “course-correcting mechanism for your mind, body and spirit” (www.huffingtonpost.com/gpsforthesoul).

Big data. Naturally, the next step is to add up all these individual metrics into a collection and look at the patterns. Once the patterns of like-minded individuals are clear, data can be collected for specific purposes, and examined through an infinite array of filters and lenses.

Then, to promote flourishing of individuals in a community, technology can dole out encouragement and advice. Here are some simple examples: after I complete a run using my Nike+ app on my iPhone (which shares my mileage to encourage and get support from my fellow-running friends and family, my community), the voice of a celebrity runner has been

known to congratulate me and tell me that was my fastest mile yet. When my UP band has recorded a couple of weeks' worth of data about my steps, I have gotten a message asking me what it is about my Wednesdays that they seem to be my more sedentary days.

The Positive Psychology Center at the University of Pennsylvania has launched the World Wellbeing Project (www.wwbp.org), acknowledging the massive amounts of data inherent in our ongoing day-to-day interactions with social media. Researchers involved with this project unobtrusively collect data appearing in social media to measure wellbeing across large populations. Their approach is to find and evaluate expressions that support wellbeing and positive emotion, engagement, positive relationships, meaning, and accomplishment (PERMA). One hoped-for outcome of this project is to create an available, scalable, cost-effective methodology to assess wellbeing across entire populations, in order to merge wellbeing and big data (M. L. Kern, personal communication, July 27, 2013).

Imagining the merging of the wellbeing index movement with the big-data movement, Chairman of the U.S. Federal Reserve, Ben Bernanke (2012) has said, "Evolving technologies that allow economists to gather new types of data and to manipulate millions of data points are just one factor among several that are likely to transform the field [of global wellbeing measurement] in coming years" (p. 1).

Privacy. Finally, it is impossible to talk about the publicly sponsored measurement of wellbeing without talking about its implications on privacy. At this writing, privacy has been in the headlines for weeks, following the revelation by whistleblower Snowden, a former young programmer for the National Security Agency (NSA,), that the United States was gathering and pattern-matching the digital activity of all its citizens – what some citizens view as a clear

violation of Fourth Amendment rights, while others see it as a necessity in the fight against terrorism (Mazzetti & Schmidt, 2013).

Privacy, some say, is fast disappearing. Open societies – who are the leaders in collecting wellbeing data (27 of the top 30 countries listed in the Legatum Prosperity Index are democracies [Legatum Institute, 2012b]) – will be hard-pressed to let their privacy go without a fight. In those governments where trust scores are low, resistance is likely to complicate the straightforward measure of wellbeing. John Clippinger, Founder and Executive Director of idcubed.org and a Scientist at the MIT Media Lab Human Dynamics Group, where he is conducting research on trust frameworks for protecting and sharing personal information, believes that, at present, individuals are not aware of the full implications of giving up their personal data. “It’s creating a different social and economic order and we’re in the midst of that happening now” (Havens, 2012, p. 1). Where transparency can be blended with trust, he foresees a positive evolution.

But how well wellbeing data can be collected by less open societies remains to be seen. According to Kurtzman and Yago (2009), creators of Milken Institute’s Opacity Index, *opaque*, or low-transparency, countries such as Russia, Saudi Arabia, and China will raise more questions than they resolve by asking citizens about their wellbeing. *Why are you asking?* and *Who wants to know?* and *What are you planning to do with this information?* are likely questions to be raised – if not in public, then behind closed doors – in societies where the practices around the five Opacity Index measures (corruption, legal system efficiency, accounting standards, regulatory effectiveness and economic and enforcement policies) are known to be questionable.

Conclusion

Humans are alone as a species in our ability to imagine different futures and to be drawn into them (Seligman, Railton, Baumeister, Sripada, 2013). No mystery here: researchers tell us this is a function of our frontal lobe and our ability to form and apply conditional logic: “if X, then Y” (p. 2) *If X, then Y*, it turns out, is what makes us uniquely human. It triggers the imagination and trips our instinct for setting goals, building productive habits, and exercising willpower, self-determinism, self-efficacy, and emotional intelligence in pursuit of those goals. The wellbeing index plays an increasingly critical role as a bridge between governments and their citizens, enabling them to work together to reimagine the future (Prilleltensky, 2005; Seligman et al., 2013).

Current indicators have helped to foster a global conversation around wellbeing, moving the focus of social measurement beyond illbeing and the insufficient GDP. They have provided a means of assessing the impact of various socio-economic and other factors on wellbeing that reflect the values of our people and our times.

Still, we must take care to remember the imperfections, the complexity and contradictions of wellbeing measures, especially (but not only) the self-reported measures. According to Eckersley (2009), wellbeing indices have been known to “overestimate the positive effects and underestimate the negative” (p. 2). We must guard against an overly positive view of our results, keeping in mind that for every Santa Monica wellbeing index, there just may be a Santa Monica shooting. And we must remain sensitive to the fact that words like “happiness” and “wellbeing” convey different meanings in different world cultures.

As Pawelski pointed out in one of the MAPP classes, “Truth is a marriage function between old beliefs and new facts” (Pawelski, personal communication, February 1, 2013). Just

as Einstein overturned Euclidean geometry; and Galileo upended the view that the world was flat, institutions, companies, governments, and their citizenry are right here, right now, disruptively reinventing the blunt instruments of measurement in favor of measuring what Kennedy says matters: “the health of our children, the quality of their education, and the joy of their play” (Kennedy, 1968). If we want to focus on what truly matters in order to create a flourishing society, we must continue to mainstream the wellbeing index. In this way we will surely count what truly counts.

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Appendix 1
Indices and the Problems They're Trying to Solve

Index:	Australian Unity Wellbeing Index	
Year created:	2001	
Description & problem trying to solve:	The Australian Unity Wellbeing Index is a comprehensive measure of personal and national wellbeing. Unlike traditional indicators of quality of life such as gross domestic product, the index measures how Australians feel about personal issues such as their relationships, or national issues such as satisfaction with government.	
Overarching goal:	Australian Unity, in partnership with the Australian Centre on Quality of Life at Deakin University, regularly measures how satisfied Australians are with their own lives and with life in Australia. The Australian Unity Wellbeing Index investigates satisfaction with economic, environmental and social conditions in Australia, and gives insights into individual wellbeing.	
Website:	www.australianunity.com.au/about-us/Wellbeing/AUWB	
Indicators:	1. Achievement 2. Community vitality 3. Future security 4. Health	5. Relationships 6. Safety 7. Standards of living

Index:	Canadian Index of Wellbeing (CIW)	
Year created:	2011	
Description & problem trying to solve:	The vision of the Canadian Index of Wellbeing (CIW) is to enable all Canadians to share in the highest wellbeing status by identifying, developing and publicizing statistical measures that offer clear, valid and regular reporting on progress toward wellbeing goals and outcomes Canadians seek as a nation.	
Overarching goal:	Ensure leading-edge and ongoing research and development of the CIW including further refinement of common standards, pilot testing of sub-indices, collection and compilation of data for health, social, economic, and environmental variables and trends.	
Website:	uwaterloo.ca/canadian-index-wellbeing/	
Indicators:	1. Community vitality 2. Culture 3. Education 4. Future Security	5. Health 6. Relationships 7. Safety 8. Standards of living

Index:	Gallup-Healthways Wellbeing Index	
Year created:	2008	
Description & problem trying to solve:	The Gallup-Healthways Well-Being Index® is the first-ever daily assessment of U.S. residents' health and well-being. Interviews at least 500 U.S. adults daily.	
Overarching goal:	Real-time measurement and insights needed to improve health, increase productivity, and lower healthcare costs. Public and private sector leaders use data on to develop and prioritize strategies to help their communities thrive and grow. Journalists, academics, and medical experts benefit from this unprecedented resource of health statistics and behavioral economic data to inform their research and reporting.	
Website:	www.well-beingindex.com	
Indicators:	1. Basic access 2. Engagement 3. Health	4. Emotional Health 5. Life Satisfaction 6. Working life

Index:	Genuine Progress Indicator (GPI)	
Year created:	1995	
Description & problem trying to solve:	Redefining Progress created the Genuine Progress Indicator (GPI) as an alternative to the gross domestic product (GDP). The GPI is one of the first alternatives to the GDP to be vetted by the scientific community and used regularly by governmental and non-governmental organizations worldwide.	
Overarching goal:	Adoption of the GPI as a tool for sustainable development and planning. On a yearly basis, Redefining Progress updates the U.S. Genuine Progress Indicator to document a more truthful picture of economic and social progress. The GPI enables policymakers at the national, state, regional, or local level to measure how well their citizens are doing both economically and socially.	
Website:	rprogress.org/sustainability_indicators/genuine_progress_indicator.htm	
Indicators:	1. Climate policy 2. Ecological footprint	3. Environment 4. Sustainable economics

Index:	Gross National Happiness Index	
Year created:	2008/2010	
Description & problem trying to solve:	Gross National Happiness is a term coined by His Majesty the Fourth King of Bhutan, Jigme Singye Wangchuck in the 1970s. The GNH Index is constructed based upon a robust multidimensional methodology and is designed to create policy incentives for the government, NGOs and businesses of Bhutan to increase GNH. The statistically reliable, normatively important indicators emphasize different aspects of wellbeing and different ways of meeting these underlying human needs.	
Overarching goal:	“We strive for the benefits of economic growth and modernization while ensuring that in our drive to acquire greater status and wealth we do not forget to nurture that which makes us happy to be Bhutanese... The duty of government is to ensure that... the happiness and wellbeing of our people are nurtured and protected” (Ura et al., 2012, p. 6).	
Website:	www.grossnationalhappiness.com	
Indicators:	<ol style="list-style-type: none"> 1. Community vitality 2. Cultural diversity & resilience 3. Education 4. Ecological diversity & resilience 5. Health 	<ol style="list-style-type: none"> 6. Good governance 7. Living standards 8. Psychological wellbeing 9. Time use

Index:	Happy Planet Index	
Year created:	2012	
Description & problem trying to solve:	The Happy Planet Index (HPI), created by the new economics foundation (nef), is a leading global measure of sustainable well-being, which uses global data on life expectancy, experienced well-being and ecological footprint to calculate the extent to which countries deliver long, happy, sustainable lives for the people who live in them. The 2012 HPI report ranks 151 countries and is the third time the index has been published.	
Overarching goal:	The index, which is an efficiency measure, ranks countries on how many long and happy lives they produce per unit of environmental input, in other words, how much wellbeing do you get for your consumption of resources?	
Website:	www.happyplanetindex.org	
Indicators:	<ol style="list-style-type: none"> 1. Ecological footprint 2. Life expectancy 3. Sustainable economics 	

Index:	Legatum Prosperity Index	
Year created:	2007	
Description & problem trying to solve:	For the past six years the Legatum Prosperity Index™ incorporates traditional economic measures of prosperity with measurements of wellbeing and life satisfaction. It is a global index that provides an empirical basis for the hypothesis that prosperity results from the blend of income and wellbeing.	
Overarching goal:	The purpose of the Prosperity Index is to spark debate and to encourage policymakers, scholars, the media, and the interested public to take a holistic view of prosperity and to better understand how it is created (Legatum Institute, 2012a).	
Website:	www.prosperity.com	
Indicators:	1. Economy 2. Education 3. Entrepreneurship & Opportunity 4. Governance	5. Health 6. Personal freedom 7. Safety & security 8. Social capital

Index:	OECD Better Life Index	
Year created:	2011	
Description & problem trying to solve:	Since 1961, the Paris-based Organization for Economic Co-Operation and Development (OECD) has been helping governments create better policies so that their citizens can lead better lives. They have been working for ten years to find the best way to measure progress and its impact on people's lives. This has led to creating the <i>OECD Better Life Initiative</i> . This wellbeing index for its 34 member countries (among the world's most prosperous) is an interactive tool that allows citizens to see how countries are performing relative to the weight they place on each of 11 topics that add up to their wellbeing (see indicators, below).	
Overarching goal:	The OECD created <i>Your Better Life Index</i> to support policymaking with the goal of improving quality of life. "Is life really getting better? How can we tell? What are the key ingredients for improving life? Does progress mean the same thing to all people or in all countries and societies?" (OECD, 2013, p. 3).	
Website:	www.oecdbetterlifeindex.org	
Indicators:	1. Civic engagement 2. Community 3. Education 4. Environment 5. Health 6. Housing	7. Income 8. Jobs 9. Life satisfaction 10. Safety 11. Work-life balance

Index:	PERMA-Profiler
Year created:	2013
Description & problem trying to solve:	The PERMA-Profiler (currently under development) is a brief multidimensional measure of flourishing that allows individuals and organizations to assess and monitor wellbeing in terms of Seligman's (2011) theory of wellbeing: the five pillars that contribute to a flourishing life. These five indicators (see below) are each outcomes that people pursue individually. The PERMA-Profiler seeks to create a "dashboard" (Butler & Kern, 2013, p. 6) that will produce a single measure of wellbeing in the context of multiple cultures and situations (Butler & Kern, 2013).
Overarching goal:	The PERMA-Profiler seeks to operationalize and rigorously test wellbeing theories so that each pillar that contributes to wellbeing may be relied upon, when combined alongside other more quantitative measures such as GDP, to ensure that we are doing the right things to increase wellbeing across diverse populations, both at the individual and at the community level (2013).
Website:	https://sasupenn.qualtrics.com/SE/?SID=SV_bd5KWGQczyGfEMJ
Indicators:	<ol style="list-style-type: none"> 1. Positive Emotions 2. Engagement 3. Relationships 4. Meaning 5. Accomplishment

Index:	Santa Monica Local Wellbeing Index
Year created:	2013
Description & problem trying to solve:	In 2013, Santa Monica won the Bloomberg Philanthropies Mayors Challenge to create a Local Wellbeing Index that measures wellbeing for Santa Monica and that will be replicable to other cities in the country.
Overarching goal:	The City of Santa Monica sought to answer this question: "How can cities use limited resources more effectively to create conditions needed for people to thrive" (O'Connor, 2013, p. 1)? The city plans to use the science behind wellbeing to measure and improve the city and make the best use of resources. "This will fundamentally change the relationship between citizen and government" (p. 1). They plan to replicate their model with other cities.
Website:	http://www.smgov.net/wellbeing/
Indicators:	Not available at this time.

Index:	The Social Progress Report	
Year created:	2008	
Description & problem trying to solve:	The Social Progress Report is a report written by economists – Amartya Sen, Joseph Stiglitz, and Jean-Paul Fitoussi – and social scientists to examine socioeconomic alternatives to GDP. This resulted in the Commission on the Measurement of Economic Performance and Social Progress (CMEPSP). The commission made five recommendations, which, today, are being incorporated into the thinking of wellbeing indices as they emerge or retool.	
Overarching goal:	“Shift the emphasis from measuring economic production to measuring people’s well-being” (Stiglitz, et al., 2009, p. 12) and to put wellbeing into the context of sustainability.	
Website:	www.stiglitz-sen-fitoussi.fr	
Indicators:	1. Education 2. Environment 3. Health 4. Insecurity, economic and physical	5. Political voice and governance 6. Material living standards 7. Personal activities, including work 8. Social connections and relationships

Index:	State of the USA (SUSA)	
Year created:	2010	
Description & problem trying to solve:	The nonprofit, nonpartisan State of the USA, now in beta – in concert with the National Academy of Sciences – will be a scorecard meant to shine a light on the exact areas in the US – in health, education, the environment and so forth – where improvement is indicated. Key indicators will benchmark both where the country is and will record improvements as well as failures to improve on key issues over time.	
Overarching goal:	State of the USA will design a scientifically credible, open, transparent, participatory process to frame issues using relevant national indicators, or measures, and reliable supporting data sources. This will help Americans assess the nation’s progress for themselves, at all levels, with the best quality measures and data on the most important issues facing the country (with the goal of understanding the country’s most pressing issues).	
Website:	www.stateoftheusa.org	
Indicators:	State of the USA hopes to support a Key National Indicator System (KNIS) that will ultimately track some 300 indicators on issues like crime, energy, infrastructure, housing, health, education, environment and the economy. A list of actual indicators is still under discussion and is not available at this time.	

Index:	UK National ONS Wellbeing Index	
Year created:	2011	
Description & problem trying to solve:	Within the UK, the Office of National Statistics (ONS) is developing new measures of national well-being. The aim is to provide a fuller picture of how society is doing by supplementing existing economic, social and environmental measures that are relevant to what matters to people beyond the measures provided by the GDP.	
Overarching goal:	Wider and systematic consideration of well-being has the potential to lead to better decisions by government, markets and the public and as such will lead to better outcomes.	
Website:	www.ons.gov.uk/ons/guide-method/user-guidance/well-being/index.html National Wellbeing interactive wellbeing wheel of measures: http://www.ons.gov.uk/ons/interactive/well-being-wheel-of-measures/index.html Sample infographic: http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/personal-well-being-in-the-uk--2012-13/info-personal-well-being--2012-13.html	
Indicators:	<ol style="list-style-type: none"> 1. Where we live 2. Natural environment 3. Economy 4. Education and skills 5. Governance 	<ol style="list-style-type: none"> 6. Health 7. Relationships 8. Personal finance 9. Personal wellbeing 10. What we do

Index:	United Nation's Human Development Index	
Year created:	1990	
Description & problem trying to solve:	The United Nation's Human Development Index has had a profound impact on policies around the world, backing up its guiding principle that "people are the real wealth of a nation" (http://hdr.undp.org) not only with impressive empirical data but with a novel way of thinking about and measuring development.	
Overarching goal:	The United Nations continues to evolve its measurement tools and refine the lens through which they view positive global development. Yet for more than 20 years, at the core of the Human Development Index lies the belief that, in the end, development is best measured by its impact on the lives of individuals.	
Website:	www.hdr.undp.org	
Indicators:	<ol style="list-style-type: none"> 1. Education 2. Health 	<ol style="list-style-type: none"> 3. Life expectancy 4. Standards of living