2015

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Recommended Citation

Forbes, R. L. (2015). The Fourth Social Change Wave: Mastery or Misery?. *SSRG International Journal of Humanities and Social Science, 2* (4), 1-5. https://doi.org/10.14445/23942703/IJHSS-V2I4P101

The Fourth Social Change Wave: Mastery or Misery?

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Abstract:

One of the great values of social science has been its ability to identify and interpret useful themes and patterns that have shaped historical human behavior. In particular, understanding broad patterns of strategic social and technological change offers the opportunity to gain valuable insight into the present and provide potentially practical guidance for the future. This paper advances the concept of social waves of change, originally presented by futurist Alvin Toffler, as a frame work to think about what is now and what might be coming. It also provides several visions for a changed world, explores what it all might mean, offers beneficial lessons learned thus far, discusses what could really matter, and proposes some summary conclusions.

Keywords – *Fourth Wave, Social Change, Futurism. PresentShock,Conceptual Age*

I. INTRODUCTION

One of the founding father soft he United States , polymath Benjamin Franklin, is famous for saying, "Nothing can be certain, except death and taxes." Given the historical record, we might well be able to expand Franklin's mantra to include "and change." Continuous change has become an intrinsic and sometimes unwelcome aspect of modern life. Depending on your perspective, change can be evolutionary or revolutionary; neutral, a blessing or a curse. By current standards the pace and breadth of change was much slower in Franklin's time. Travel speed was measured by how fast a horse could go and communications were mostly oralor hand-written. In contrast, today, airline travel speed approaches the velocity of sound and communication scan occurat the speed of light.

So, what can we learn of real value in the present from exploring the pattern sand themes inherent in bygonetimes? Commenting on the impact of the past onto day's world, cultural geographer Jared Diamond [11 observed, "The world of yesterdayshapedourgenes,culture,andbehaviorformostof thehistoryof behaviorally modern *Homosapiens,* who arose between60,000 and100,000 years ago. As deduced from the archaeological record, changes in life style and in technology unfolded extremely slowly until they began to accelerate with the earliest origins of agriculture around11,000 years ago in the Fertile Crescent."

Some thoughtful observers today believe that today's rate of change has actually moved from incremental to exponential. And, consequentially, rampant change now distinctly challenges our physical, mental, emotional, and moral ability to cope with it . Metaphorically ,it is like trying to surf a huge ocean wave while keeping our balance, look in gout for other surfers, maintaining a margin of water safety, managing our surf board, and trying to enjoy their deal at the same time.

Yet, other responsible observers think we maybe patently guilty of change hubris. Educator and futures writer Gary Marx thinks that we are culpable for not paying sufficient attention to the important social and technical shifts that have been occurring around us. Marx[2]notes," Our talent and energy is focused like alaseron shielding ourselves from the reality of over whelming demographic change, are volution in technology, earth-shaking scientific discoveries, economic and environment alrealities, and the constant buzz of new ideas."

II. PROLOGUETOTHEFUTURE

In his well-received book, *The Third Wave*, futurist Alvin Toffler proposed that the chronicle of human event scan be characterized by the experience of three major patterns or wave soft technical and social change. Each of the three surges was seen to reflect critical turning points inhuman history. These inflection points were linked with significant events associated with that particular epoch.

The dominant impulse in each wave current was generated by the build-up and interaction of powerful technological and social change dynamisms. Like a cycle of ocean wavesimpingingo sandy beach, each wave, in turn, leave sits imprint and recedes, only to be replaced by the next incoming breaker. Over time, the beach becomes saltered and shaped by the energies in the waves.

A. *Agriculture: The First Wave*

Toffler [3] suggests the beginning or first change wave was a agrarians .Hetracesits origins back more than five millennia. During this initial period humans transitioned from a wandering existence in small groups toward more permanent settlements built around land dedicated to farming and animal husbandry.

The domestication of wild plants, along with increased knowledge related to planting, irrigation and fertilizers, produced crop surpluses. The storage and trading of crops for other products also marked the beginnings of regular commerce. Increasingly complex accounting systems were developed to track the market transactions.

The primary source of energy in the Agricultural Wave was animal and human muscle power. Wealth was accumulated through the control, ownership and exploitation of natural resources; principally land. This period also saw the rise of the first cities, armies and administrative governing structures.

Conflict between individuals and groups was frequently violently handled with simple edged weapons employed within face-to-face striking distance. The world was thought to be ruled by unseen and omnipotent gods whose edicts were interpreted by a priestly caste. Hereditary kings tended to justify their lofty positions over the populace as the consequence of the divine right of having been selected by the gods.

B. *Industrial: The Second Wave*

About mid-way in to the nineteenth century the second great change wave came rolling in. It was driven by the advent of steam power, electrification and the industrial revolution. Energy from natural substances such as coal, oil, and gas powered devices supplanted human and animal power.

Mass industrialization transformed the landscape as standardized production processes greatly increased the availability of consumer good sand lowered their prices. Specialized factory work began To replace craft work and the more generalized work off arming. Work, itself, became the subject of study

As industrial it's sought the" one-best-way' 'to more efficiently accomplish it.

In the second social change wave, cognition became further divorced from feeling and action. The emphasis on science as the principal means of understanding the world result edinitsre-conception as a giant, mechanical, fixed-action machine operating in accordance with known laws. Wealth resulted from the manipulation of financial capital, the sourcing of raw materials for production, the control of the means of production, and hegemony over the distribution channels for the finished goods.

Impersonal bureaucracy became the prevailing configuration for civic and business organizations. Warfare was more mechanized, technology-based, and used more frequently to achieve the ends of nation-states. Innocent civilian populations became legitimate targets and methods for impersonal destruction at a distance more common place.

C. *Information: The Third Wave*

The onset of the third wave, or the Information Age, is often traced to the invention of the integrated circuit and the subsequent development to the digital electroniccomputerinthe1950's. Within this new change wave the velocity of change increased dramatically and its rate accelerated. Knowledge began to supplant the physical form soft power as the principal engine of the economy. Nuclear power was harnessed and developed both militarily and commercially.

Counter to the Communist fiscal doctrines of Karl Marx, knowledge workers incorporated in themselves both the source and the means of generating wealth. By the end of the era, Capitalism had become the most accepted world wide economic system. With the development of the Internet global communications became common and greatly facilitated the growth of international commerce. Business institutions pioneered new types of administrative structures such as: networks, matrices, and virtual organizations.

The middle class found itself under heightened economic pressure from rising costs and stagnant wages. Wealth distribution became increasingly asymmetric, dividing the monetary have-not sand the haves. Global first world countries clustered into the northern hemisphere and third world countries grouped into the southern hemisphere.

Generational, racial and ethnic issues became more marked and public. Information-enabled technology allowed war fare to become more programmed, precise and deadly, permitting missile Guided carnage at distances of thousands-of-miles. The United Statesarose as a single super- powerto dominate the political-military sphere.

III. THE FOURTH WAVE:VISIONSOFACHANGEDWORLD

Some attentive viewers believe that now, well into the twenty-first century, we find ourselves in the specter of a fourth great wave of change. No consensusyetexistson what to callitor what its final form

might take. Although descriptors such as: the Second Machine Age[4] the Renaissance Society [5], Post-Capitalist Society [6], the Wealth Revolution[7], and the Conceptual Age[8] have been propounded. What does appear to be clear is the fundamental reality of disruptive, rapidly accelerating, widespread, non-linear change in an impressive range of fields.

The effects of non-linearity on human, physical and biological processes are increasingly being explored by a wide variety of scientists under the guise of research into complex adaptive systems. Interest has also risen in reaping pragmatic applications from the study of natural processes. An example of this innovative direction is exemplified in the modern field of Biomimicry.

Worldwide, scientists are currently engaged in extensive efforts to explore the human brain, genetics, robotics and nanotechnology. Already, the seen deavorshaveled to new field so enquiry such as: Artificial Intelligence, Materials Science, Behavioral Economics, Quantum Computing, Neuro finance and Neuro marketing. Additionally, some of the results of these research attempts have been directly applied to business toenhanceour understanding of the behavior of economies. Organizations, markets, and consumers.
Futurist John Naisbitt[9]described his version of the newest change wave in terms of trading off technological progress(high tech)with human connections (high touch).Rolf Jensen[10],the Director of the Copenhagen Center fort he Studies of the Future, picture daworldt hat has moved from information preeminence to the primacy of human imagination. Researchers Maynard, Herman, and Martens [11] in their work, *The Fourth Wave,* envisaged the future as being collectively co-created by cooperating groups of stake holders.

Ryan Mathew sand Watts Wacker[12],in*The Deviant's Advantage,* have also written about a Post-Information Age. Their fourth wave began in the early years of the twenty-first century and recognized
Biology as the fore most science. Mathew sand Walker also acclaimed biotechnology and sentient software as the dominant technologies. They also suggested that anew proof of reality willlieina heightened ability to transfer data points into information. Mathews and Wacker also foresaw the convergence of biological science with information science, each discipline informing and enabling the other.

One of the more thoughtful views of the fourth wave comes from futurists Christopher Meyer and Stan Davis. In their book, *It's Alive*, Meyer and Davis [13]predicted the merging of information, biology, and business and suggested that we are already well into the first stage of the fourth change wave. They also proposed that the major forces driving this convergence are prior investments in networks and autonomous software, as well as the growth of molecular technologies such as nanotechnology, biotechnology, and materials science.

IV. WHAT DOES IT ALL MEAN?

Accepting the crux of major waves of change as a primarily nonlinear function mean shaving to give up the notion so predictability and control. It implies that a given quantity of input does not necessarily produce an equivalent measure of output but may result in a great deal more or a great deal less than expected. Fourth wave thinking portends that, for most organization soft he future, the immaterial will likely count more than the material. It also signifies that actual outcomes will be more difficult to quantify. Financial measures will become just one of a variety of yard sticks that organizations use to gage their successor failure. Adopting the non-linear perspective also meansrelinquishing single cause- single effect thinking for a more broadly-based, multiple-cause, multiple-effect, ecologically-oriented, viewpoint.
Nonlinearity may not be for the timid or insecure. More courage and greater tolerance for ambiguity are required. Optimistically, nonlinearity offers the prospects for significant gains from minimum investment. Pessimistically, there is also the risk of substantial loss from large input outlays. Outcomes appear to be much more dependent on random fluctuations in the initial environmental conditions.
However, research from complexity theory tells us that even with in apparent chaos there are islands of relative stability. Theses table, non-periodic patterns are called "Strange attractors." They are believed to represent a possible solution to a chaotic system. It may well be that the distinctive competency of the strategic change leader of the future will be an ability to recognize and utilize organizational strange attractors in the midst of chaotic change conditions.
Much of the fourth wave world will likely be defined by its interconnections and interrelationships. The boundaries between scienceandart, intuition and rationality, physical and virtual reality will become ever more blurred. Successful change will require leaders taking their organizations to the boundary of chaos and operating here while resisting pressures for are turn to predictability and stability. Preliminary research appears to support the idea that the best possible results occur when an organization is precariously balanced on the razor's edge just shy of going out of control.

For the strategic change leader, managing context or situational conditions will probably become

as or more imperative than managing resources and processes. Disrupting entrenched stability will become as important as attempting to shore-up Malfunctioning organizational systems. In the fourth wave, situational adaption to external change forces and capitalizing one mergent opportunities will likely produce better results than does benchmarking, studying the opposition, or adopting the best practices of leading organizations.

V. WHATREALLY MATTERS

In his book *What Matters Now* business thinker and noted strategist Gary Hamel [14] discusses what organizations need to do to make them fit for the future and the human beings in them. Hamel suggests five critical are as that matter now: values, innovation, adaptability, passion and ideology. Values matter because they provide a framework for dealing with the possible trust issues generated from within society's many institutions.

Innovation matters because it is seen as the only sustainable strategy for creating long-term value. Adaptability matters because momentous change is usually very costly and crises-driven. Passion matters because it drives motivation and innovation.
And, ideology matters because it enables the use of more effective organizational principles.

Authors Susan Mohrman, Jay Galbraith, and Edward Lawler [15] imply that strategic planning timelines are decreasing by a factor of over one hundred; from tens of years to a few months. They also suggest that strategic competitive advantage is Moving away from an emphasis on avoiding competition, sustaining advantage, and erecting barriers. Mohrman, Gailbraith and Lawler suggest that competitive advantage seems to be moving towards confronting competitors, disrupting others advantages, changing the rules, and developing the organization's internal capabilities. In anyevent, sustainable competitive advantage appears extremely difficult to maintain in the long term with out regular attention, innovation an dinvestment of resources

Fourth Wave reasoning has also been linked to focusing management science on environmental sustainability. Business professors Andrew Hoffman and John Ehrenfeld have proposed calling the fourth wave era" the Age of the Anthropocene."Hoffman and Ehrenfeld[15]noted, "The fourth wave is adeparture from that dominant model, recognizing that we are dealing with an impact on the environment that goes beyond ourstandard notions of environmental insults and differentiated social impacts.""

VI. LESSONSTHUSFAR

+ Some of the more advanced economies of the first world appear to be early in a fourth major social and technical change wave.
+ Exponential change seems more common in the human realm than incremental change: in this region Small inputs can produce large and unpredictable effects and correspondingly hefty inputs may have negligible or even negative effects.
+ In most organizations, the avoidance of unfavorable consequences in the presentorat an anticipated future time appears to influence the need for change more than does the prospecof capitalizing on opportunities.
+The social aspects of strategic change often override or trump the technical and economic ones.
+ Present shock has begun to replace future shock as a determinant of human behavior.
+ Effective organizations are likely to adroitly maneuver on the border line between order and instability.
+ We seem to be emerging into a post -information age where the new norm is geometrically accelerating social and technical change.

VII. CONCLUSIONS

It looks very much like the turbulence of constant social and technical change is unlikely to abate any time soon. Former business school dean and organization development specialist Peter Vail [16], using ariver rafting metaphor, has called this unsettled condition a state of "permanent whitewater." Alvin Toffler's prescient notion of" future shock, “the massive disruption of expectations caused by accelerating change, has now morphed into what author DouglasRushkoffc alls" present shock" [18]. Present shock is the unsettling disruptions to the bodies, minds, emotions ands pirits of human beings when everything important seems to happen simultaneously.
The fourth wave mirrors the difference between the viewpoints of Newtonian and Quantum Physics. This perceptual variance creates cognitive dissonance or the mental discomfort created when our minds attempt to adjudicate between two apparently conflicting modes of thought. So, to avoid the worry and anxiety created by attempting to bridge an apparent paradox, we wind up trying to avoid the pain of reconciliation by not thinking about it too much.

On one-hand, we live and work in the visible world of mostly observable outcomes, seen to operate in conformance to fixed physical laws. On the other

hand, lies an invisible realm, populated by esoteric subatomic particles operating in a probabilistic world of uncertainty and doubt. In the stranger-than-fiction quantum domain the act of observation directly impacts outcomes. For example, light can be either a wave or a particle, depending on how you look at it.

On a more down-to-earth level, the perceived difference between the two systems of thought may be captured in an analogy using two applied academic disciplines, Engineering and Meteorology. Representing classical physics, Engineering employs predictable laws and the precision of mathematical equations to solve practical problems. The natural messiness and unpredict ability of long-term weather forecasting, as reflected in the field of Meteorology, reflects some of the uncertainty inherent in Quantum Physics.

In essence, leading strategic change is largely about influencing self and other people to change. Change occurs by helping individuals and groups to alter the ways they see, think, feel and act. What remains constant amidst all the turmoil is that effecting strategic change is essentially still about impacting an organization's human and social capital.

Jerry Hirsh berg, an innovative automobile designer and former CEO, has thoughtfully considered the role of the leader in a world grown more ambiguous and uncertain. Hirshberg[19]states that, "Leading and creating are intimately connected activities, both being involved with initiation, forward movement, and action at the edge of the known." This sounds much like an endorsement for embracing uncertainty and operating on the stability-chaos boundary.

Wondering about possible futures, authors Peter Diamandis and Steven Kotler[20] note," Ever since we figured out how to make fire, technology has been how humans dream into the future."And,"If150,000yearsofevolution is anything to go by, it's how we dream up future. Innovation is woven into the fabric of who we are."We are creatures of our times.

In the year 2000 management writers Richard Pascale, Mark Millemann, and Linda Gioja [21] prophetically predicted, "There is a new scientific renaissance in the making. It will usher in new industries, alter how businesses compete, and change how companies are managed." Some fifteen years later, many of us are still in the midst of trying to figure out how to avoid the misery of a steep fall into chaotic change and capitalize on the promises of the fourth change wave. Like it or not, thesurfisup.

REFERENCES

[1] J.Diamond,TheWorldUntilYesterday.NewYork,NY: Viking.2012,p. 461

[2] G.Marx,21 Trendsforthe21'"Century. Bethesda.MD: EducationWeekPress,2014,p.3.

[3] A.Toffler,TheThirdWave.NewYork.NY:William Morrow.1980.

[4] E. BrynjolfssonandA.McAfee,TheSecondMachineAge.NewYork, NY:W.W. Norton.2014.p.7.

[5] R.JensenandM.Aaltonen,TheRenaissanceSociety.NewY ork:McGraw-Hill.2013.

[6] M.Checkel,ManagingAmericainaPost-CapitalistSociety.AmazonDigitalServices:TetNTone.2011.

[7] A.TofflerandH.Tomer,RevolutionaryWealth.NewYork. NY.Knopf.2006.

[8] D.Pink,AWholeNewMind.NewYork.NY:RiverheadPress.2005. pp.9-61.

[9] J. Naisbitt,MindSet!:ElevenWaystoChangetheWayYouSee and CreatetheFuture.NewYork.NY. Harper Business.2008.

[10] R.Jensen,TheDreamSociety.NewYork.NY: McGraw· Hill.2001.

[11] H.MaynardandS.Mehrtens,TheFourthWave.SanFrancisco,CA: Berrett-Koehler.1993.

[12] R.Mathews and W.Wacker,TheDeviant'sAdvantage.NewYork.NY:CrownBusin ess.2002.

[13] C.MyerandS.Davis,It'sAlive:TheComing Convergence of Information,BiologyandBusiness.NewYork.NY·Crown.2003.

[14] G.Hamel,WhatMattersNow.SanFrancisco.CA:Jossey-Bass,20 10.pp.x-xi.

[15] S.Morman,J.GailbraithandE. Lawler,Tomorrow'sOrganizations.SanFrancisco.CA.Jossey-Bass.1998.

[16] A.HoffmanandJ.Ehrenfeld,"TheFourthWave.ManagementScie nceandPracticeintheAgeoftheAnthropocene."Working Paper 1196.RossSchoolof Management.Universityof Michigan. 2014.

[17] P.Vail,LearningasaWayofBeing: StrategiesforSurvivalInaWorldofPermanentWhiteWater.SanFr ancisco,CA:Jossey- Bass.1996.

[18] D.Roshkoff,PresentShock.NewYork:Penguin.2013.

[19] J.Hirshberg,TheCreativePriority,NewYork.NY: HarperCollins.1999.

[20] P.Diamandisand S.Kotler,2010.Abundance: TheFutureisBetterThanYouThink.NewYork.NY: TheFreePress.2010.p.304.

[21] R. Pascale, M. Millemann, and L. Gioja, Surfing the Edgeof Chaos. New York, NY: Three Rivers Press. p.1.