

# Prof. Rex Li's Writings

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**Title:** Summary and Review of Howard Gardner (2008)  
*Five Minds for the Future*  
Chapter 4: Creativity

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**Summary/ Abstract:** Gardner had done much in case studies of creativity. In this chapter he criticized the infamous creative accounting in Enron (Kenneth Lay).

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## Summary and Review of Howard Gardner (2008)

### *Five Minds for the Future*

#### Chapter 4: Creativity

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#### (1) Background Story (so far as I know it)

1973: A philosopher, De Bono, proposed *Lateral Thinking* (1973)

1983: Gardner published *Frames of Mind: A Theory of MI* and gained wide recognition.

1985: He wrote about cognitive science to introduce the subject.

1987: MI goes to school

1989: Digress (my belief)

Gardner thought Chinese were neither creative nor open-minded. See his title: Howard Gardner, *To Open Minds: Chinese Clues to the Dilemma of American Education* (New York: Basic Books, 1989).

1993: For many years, he worked on creativity by a case study approach and finished *Creating Minds: An Anatomy of Creativity as Seen Through the Lives of Freud, Einstein, Picasso, Stravinsky, Eliot, Graham, and Gandhi*.

1995  
|  
2000 Around that time, a psychologist, Mihaly Csikszentmihalyi, worked on creativity and published *Flow* (1991) and *Creativity* (1996). The two worked together projects of good work and published *Good Work: When Excellence and Ethics Meet*.

#### (2) Chapter Summary

- p.77
- John Brown "I create; therefore I am"
  - Human history shows more conservatism than creativity.
- R: Sure, creativity / innovation comes mostly with survival needs.
- p.78 R: Creativity is a key feature of 20 century.
- p.79 Gardner endorsed Edward De Bono's lateral thinking

- p.80 Big and small creativity; also there is no one-size-of-creativity-fits-all.
- p.80-81 Gardner cites Mihaly Csikszentmihalyi: interaction of “three autonomous elements” – the individual, the cultural domain and the social field.
- p.81 R: my rephrase:  
First, the marginal creator has to get the recognition of a domain expert (伯樂). Then, it must gain social acceptance, popularization and influence.
- p.83 “Intriguingly, prodigies in a domain rarely turn out to be creators.”

turn out to be creators. Since early childhood prodigies have been rewarded for doing precisely what the adults in their domain were doing; and so it requires a remaking of self—a sharp change in goals, orientation, and motivation—to set off in new, uncharted directions. A wit said of Camille Saint-Saëns, an aging musical prodigy

Creativity is risking, “flow”, addictive, doesn’t follow the marching band...

The creator stands out in terms of temperament, personality, and stance. She is perennially dissatisfied with current work, current standards, current questions, current answers. She strikes out in unfamiliar directions and enjoys—or at least accepts—being different from the pack. When an anomaly arises (an unfamiliar musical chord, an unexpected experimental result, a spike or dip in the sale of goods in an unfamiliar territory), she does not shrink from that unexpected wrinkle: indeed, she wants to understand it and to determine whether it constitutes a trivial error, an unrepeatably fluke, or an important but hitherto unknown truth. She is tough skinned and robust. There is a reason why so many famous creators hated or dropped out of school—they did not like marching to someone else’s tune (and, in turn, the authorities disliked their idiosyncratic marching patterns).

again” is likely to forge creative achievements. And even when an achievement has been endorsed by the field, the prototypical creator rarely rests on her laurels; instead, she proceeds along a new, untested path, fully ready to risk failure time and again in return for the opportunity to make another, different mark. Creative activity harbors more than its share of heartaches; but the “flow” that accompanies a fresh insight, a breakthrough work, or a genuine invention can be addictive.

p.85 Gardner visits China in 1980s and he encouraged creativity.

p.86-92 Gardner's formula on promoting creativity

- (1) Exploratory childhood (p.86)
- (2) Adolescence with open possibilities (p.87) – they may be overcritical
- (3) In math and science – early adulthood keep “early innocence” (p.88)
- (4) Creativity may decline with age – see Freud's quotes:

main youths. Freud once observed, “When I was young, ideas came to me; as I age, I must go halfway to meet them.” As the average life span increases, creators (and the societies that value them) will search for new ways—perhaps psychological, perhaps physiological—to retain youthful minds and to catalyze irreverent stances.

- (5) Asking creative departments / enterprises to spin offs doesn't work.

p.89 (6) DNA in corporations: 3M and GE – Jack Welch

p.90-91 Gardner is quite update to review Amazon, Google, eBay, Enron

p.92-94 Gardner talked about creativity in groups. He quoted examples of wisdom of crowds in open source programming and Wikipedia.

R: It has nothing to do with creativity; it is an issue of group work performance.

p.94 Creative accounting of Enron. See appendix.

p.95-97 False science / creativity

- (a) Phlogiston and “dephlogisticated” in burning, falsified by Antoine Lavoisier in 18<sup>th</sup> century
- (b) Ether rejected by Albert Michelson, Edward Morley and Einstein.
- (c) Cold fusion – “a trademark example of creativity undermined by lack of discipline” (p.97)

p.97 Core values of science

got the core values of their discipline: a search for the way that things actually operate, a respect for the peer review process, a willingness to share methods and findings, a humility that allows one to say that one was mistaken, that one had misinterpreted or overinterpreted the data. In our terms, they forgot about the domain in

p.98-99 Gardner tried to distinguish creativity with synthesis

R: He's creative to bring Nietzsche into contrast Apollo and Dionysus

Yet, the impulses behind these two mental stances are distinctive. The synthesizer's goal is to place what has already been established in as useful and illuminating a form as possible. The creator's goal, on the other hand, is to extend knowledge, to ruffle the contours of a genre, to guide a set of practices along new and hitherto unanticipated directions. The synthesizer seeks order, equilibrium, closure; the creator is motivated by uncertainty, surprise, continual challenge, and disequilibrium. We may appropriate a famous distinction put forth by Friedrich Nietzsche. The synthesizer is Apollonian; possessed of a restrained temperament, she proceeds in a harmonious, balanced fashion. In contrast, the creator is Dionysian; of a tempestuous nature, she is poised to wrestle with the gods.

p.100 Leadership and creativity

360-degree searchlight mind – good and safe

Acute-angle laser mind – creative

p.100 Centres of creativity in history

BC500 Athens

1600 Florence

1900 Vienna, Paris

2000 Silicon Valley

Sociologist Richard Florida points to certain contemporary urban centers in America—Austin, San Diego, Seattle—that have emerged because they attract individuals who are young, comfortable with technology, socially liberal, engaged with the arts.<sup>12</sup> No doubt, com-

12. Richard Florida, *The Rise of the Creative Class* (New York: Basic Books, 2003).

13. Bill Joy, *Why the Future Doesn't Need Us: How 21st Century Technologies Threaten to Make Humans an Endangered Species* (New York: Random House Audio, 2006).

### (3) Appendix: Creative accounting

R: creative accounting = fraudulent accounting

It was practiced by Kenneth Lay who founded Enron. (bankrupt 2001) He left “a legacy of shame” for American business in highly complex and questionable accounting practices. Arthur Anderson, a top accounting firm faltered because of acting as auditor. See his life from Wikipedia below.

Born Kenneth Lee Lay  
April 15, 1942  
Tyrone, Missouri, U.S.  
Died July 5, 2006 (aged 64)  
Snowmass, Colorado, U.S.  
Education University of Missouri  
Occupation Businessman  
Political party Republican[1][2]  
Spouse(s) Linda Lay  
Judith Ayers[3]  
Children 5[3]

Kenneth Lee Lay (April 15, 1942 – July 5, 2006) was the founder, CEO and Chairman of Enron and was heavily involved in the Enron scandal, a major accounting scandal that unraveled in 2001 in the largest bankruptcy ever to that date. Lay was indicted by a grand jury[4] and was found guilty of 10 counts of securities fraud in the trial of Kenneth Lay and Jeffrey Skilling.[5] Lay died in July 2006 while vacationing in his house near Aspen, Colorado, three months before his scheduled sentencing.[6] A preliminary autopsy reported Lay died of a myocardial infarction (heart attack) caused by coronary artery disease; his death resulted in a vacated judgment.[7][8][9]

Lay left behind "a legacy of shame" characterized by "mismanagement and dishonesty".[10] In 2009, Portfolio.com ranked Lay as the third-worst American CEO of all time.[11] His actions were the catalyst for subsequent and fundamental corporate reform in regard to "standards of leadership, governance, and accountability".[10]

Lay was one of America's highest-paid CEOs; between 1998 and 2001, he collected more than \$220 million in cash and stock in Enron and sold 1.7 million shares.[12][13][14][15] However, during his trial in 2006, Lay claimed that Enron stock made up about 90% of his wealth, and that his net worth at that time was negative \$250,000.[16]



See Gardner's summary and quotes of Lay (p.140)

Of course, in the recent past, the most famous case of unethical behavior is that displayed in the 1990s by the energy trading giant Enron. As now chronicled in a variety of articles and books, and in a memorable book and movie, *The Smartest Guys in the Room*,<sup>14</sup> Enron portrayed itself as one kind of a business when the reality was quite different. To admiring investors and journalists, Enron was the corporation of the future: a group of brilliant traders and executives who had figured out the operation of the energy markets and were using their knowledge in the service of shareholders and the broader society. By 2000, Enron was the seventh-most-capitalized company in the United States, with an estimated book value of \$80 billion. The words of CEO Kenneth Lay were inspiring: "Enron could choose to think of only today and focus on maximizing profits. Instead, it has chosen to set the standard for a new industry by designing the rules of the game to be played in the next millennium. In the end this will benefit customers, Enron shareholders, and Enron employees. Bring on the brave new world."<sup>15</sup> And yet more: "Enron's reputation finally depends on its people, on you and me. Let's keep that reputation high."<sup>16</sup>