

INDEX

- Adaptation, 115
- Ageing population,
 - leveraging, 121
- Aggregation, 115
- AirWick air freshener, 96
- Alcon's enzyme product,
 - 33
- Alibaba, 5, 30, 60
- AlphaGo, 99
- Amazon, 69, 127
- Apple, 3, 10, 19, 44, 71,
 - 91, 93, 95, 110
 - App Store, 13, 27, 73,
 - 91–92
 - iPhone, 77
- Application convergence,
 - 68–69
- Aqueduct, 80, 81
- Arab Spring Uprising of,
 - 2011, 129
- Arbitrage, 115
- Architectural innovation,
 - 29
- Artificial intelligence (AI),
 - 2, 54, 75, 90, 98–100
- Artificial womb, 123
- “Assemble-to-order”
 - system, 44
- Asymmetric encryption, 10
- Autonomy, 107, 108
- “Awakening experiences”,
 - 10
- B2B brand marketing, 44
- Baidu, 5, 30
- Bank of America (BOA),
 - 81
- BellSouth, 110
- Bidirectional collaboration,
 - 46
- Big data, 2, 16–17,
 - 64–65, 90
- Bill & Melinda Gates
 - Foundation, 82
- Bio-artificial system
 - convergence,
 - 74–76
- Biotechnology, 101–102,
 - 103
- Bitcoin, 10, 74
- Blockbuster, 37, 69
- Blockchain technology, 2,
 - 10, 35, 38, 60, 61, 74,
 - 128
- “Blue ocean” market, 38
- Book of Changes*, 28

- Brave new world of living innovation, 7, 125–127
- Business model innovation, 16
- Business process reengineering (BPR), 3, 28, 56
- Capitalism without capital, 15
- Cataract surgery, 32, 33
- Character qualities, 131
- Chick-fil-A, 84
- Chiwan, 67
- Classification of innovation, 27–30
- Closed innovation, 42
 - value chain based on, 43
- Closed innovation system, 42, 115
- Cloud computing technology, 2
- Coase Law, 87–88
- Code division multiple access (CDMA), 4, 46
- Co-innovation, 46–48, 115
- Co-innovation ecosystem, 51
- Collaborative economy, 15
- Collaborative innovation, 39, 43, 52
 - value chain based on, 43
- Combination convergence, 68, 69
 - bio-artificial system convergence, 74–76
 - component and product convergence, 70
 - functional convergence, 70–71
 - industry convergence, 73–74
 - organizational convergence, 71–73
 - technical convergence, 74
 - types of, 70
- Competencies, 89, 131
- Competitive aggressiveness, 107, 109
- Component innovation, 29
- Concierge medicine, 124
- Convergence, 52, 63, 102
 - definition of, 67–68
 - types of, 68
- Convergence-based value creation strategy, 66–67
- Convergence economy, 2, 3
- Convergence revolution, 63
 - background on advent of convergence, 65–67
 - definition of convergence, 67–68
 - types of convergence, 68–76
 - application convergence, 68–69
 - combination convergence, 69–76
- Convergenomics, 3

- Corporate social responsibility, 18, 94
- “Creative economy”, 11, 15, 129
- Creative economy and job creation, 129–130
- CRISPR scissors, 124
- Crowdsourcing, 3, 45, 53, 54, 59, 115
- Cryptocurrency, 10, 74, 127
- Curious, 132
- Customer-based innovation, 16
- Customer-centered value creation, 56–57
- Customer-preferred value innovation, 16
- Customer relationship management, 19
- Da Vinci surgical robot, 74, 101
- Defense Advanced Research Project Agency, 75
- Dell, 44
- Democratization, accelerating, 61
- Demographics, changes in, 34
- Design stage, 79
- Design thinking, 77–85
 - application process of, 81–84
 - characteristics of, 79–81
 - and living innovation, 84–85
- Digital age, 105
 - critical areas of living innovation in, 127–132
 - entrepreneurial orientation (EO), 107–109
 - innovation and entrepreneurship, 109–111
- Digital divide, 120
- Digital economy, 2, 41
- Digital transformation, accelerating, 54
- Digital transformation era, 53
- Digitization, 61
- Directional innovation, 29–30
- Disruptive innovation, 2, 30, 72
- Disruptive technologies and business models, 53–54
- and economic models, 60–61
- Drucker, Peter, 106–107
- Dynamic environment, 28, 53, 60
- EAT Initiative, 124–125
- Economic depression, 114
- Economic divide, 119–120
- Economic model, new, 54–55
- Ecosystem, defined, 96–97
- Ecosystem-centered value creation, 57–58

- Ecosystem-oriented competition, 93–96
- Edison, Thomas, 31
- Edsel, 32
- Education, future of, 130–132
- Edutainment, 3, 73
- Effectiveness, 18–19
- Efficiency, 18
- Enterprise resource planning (ERP) system, 3, 15, 54, 65, 71
- Entrepreneurial orientation (EO), 107–109
- Entrepreneurship, 105
 - broad concept of, 106
 - narrow concept of, 106
- Entrepreneurship ecosystems, 111
- Entry barriers, bypassing, 37
- Evolutionary innovation, 28, 29
- Evolution of innovation, 41–49
 - closed innovation, 42
 - co-innovation, 46–48
 - collaborative innovation, 43
 - living innovation, 48–49
 - open and free innovation, 44–46
- Facebook, 13, 95
- Financial crisis in, 2008, 12
- Ford Motor Company, 32
- Foundational literacies, 131
- Free innovation, 44–46
- Fresh-Air Breathing Device and Method, 23, 24
- Fuji Company, 19, 101, 127
- Functional convergence, 70–71
- Fusion, 63, 66
 - of human, management, and technology, 79
- Future leadership, 52
- Future of innovation, 113
 - brave new world of living innovation, 125–127
 - critical areas of living innovation in the digital age, 127–132
 - global digital age, 114–115
 - innovation for the greater good, 122–125
 - from a stable innovation structure to the living innovation ecosystem, 115–118
 - from value creation to developing a smart future, 118–122
- Gallup Organization, 120–121
 - and Healthways, 118
- Global digital age, 114–115
- Global economy, 77, 98, 103, 110, 114, 122

- Globalization, 2, 12, 52, 128
- Goal divide, 120
- Goals of living innovation
 - accelerating
 - democratization by
 - digitization, 61
 - disruptive technologies
 - and economic models, 60–61
 - dynamic environment, 60
 - new economic models
 - based on economies of network, 61
 - new human resources management (HRM) practices, 61–62
- Google, 69, 95
- Google Play, 27
- Gore Procel, 68
- Gore-Tex, 68, 92
- Government, innovation in, 128–129
- Gross domestic product (GDP), 13, 15
- Hadoop, 16
- Hash functions, 10–11, 74
- Healthcare industry, 124, 132
- Holmes, William, 23
- Huawei, 5, 30, 53, 60
- Human-centered approach, 84, 85
- Human history and innovation, 1–3
- Human resource management model, 55
- Human resources management (HRM) practices, 61–62
- IBM, 44, 91, 110, 127
 - Watson, 54, 75, 99
- Ideation, 83
- IDEO, 78, 80
- IKEA, 80
- Incongruities, 32–33
- Industrial Revolution, 1, 12
- Industries and markets, changes in, 33–34
- Industry 4.0, 2, 53
- Industry convergence, 70, 73–74
- Inflation, 114
- Information and communication technologies (ICT), 2, 16, 66, 100
- Innopenreunship, 25, 105, 109
- Innovation, defined, 21–23
- Innovation ecosystems, 7, 39, 87
 - ecosystem-oriented competition, 93–96
 - living innovation ecosystem, 96–103
 - platform-oriented competition, 90–92
 - single-company-oriented competition, 87–88
 - value-chain-oriented competition, 88–89

- “Innovation of innovation”, 38
- Innovation paradigm, 15, 38, 41, 53
- Innovation S-curve, 4
- Innovative Cosmetic Concept (Incoco), 36
- Innovativeness, 107, 108
- Intangible markets, 14
- Integrated platform model, 91–92
- Intel, 44, 91, 127
- Intel Inside, 44, 92
- Intellectual Ventures, 94
- Internet access, 125
- Internet-based Industry 4.0, 2
- Internet of Brains (IoB), 2, 48, 65
- Internet of Everything (IoE), 2, 65, 66
- Internet of Things (IoT), 2, 90
- Internet of value, 2
- Internet technology, 2, 53, 89
- Interorganizational ecosystems, 95
- Intersectional innovation, 29, 30
- Intrapreneurship, 105
- Invention and innovation, 23–27
- iPhone, 10, 64, 110
- iPod, 10, 13
- iTunes, 13
- Job creation, creative economy and, 129–130
- Jobs, Steve, 9, 10, 13, 64, 77, 110
- Just-in-time (JIT) system, 3, 116
- “Keep the Change” of Bank of America (BOA), 81
- Keynesian economic development theory, 54
- Key-value database, 10
- Knowledge-intensive innovations, 35
- Knowledge management system, 51
- Kodak, 6, 19, 46, 94, 127
- Leadership models, 52–53
- Lean approach, 3
- Lego products, 95
- Leveraging economies of scale, via Internet, 36
- LifeStraw, 81
- Living innovation ecosystem, 38, 50, 58–60, 111
- structure of, 116–117
- MagicBand, 83
- Magnetic resonance imaging (MRI), 75–76
- Management innovations, 48
- commoditization of, 3–4

- Management systems
 - adopting, 15
 - application of, 53–55
- MapReduce, 16
- Market leaders, 25–27, 29–30
- Mattel, 44
- MDVIP program, 124
- Medical tourism, 3, 54, 73
- Megatrends and
 - innovation, 9–19
- Merkle trees, 10
- Microsoft, 44, 93
 - X-Box, 72
- Minerva Schools at Keck Graduate Institute, San Francisco, 131–132
- MS Windows operating system, 91
- Mustang, 32
- Netflix, 37, 69
- Network externality, 90
- New innovation
 - leadership, 52–53
- New jobs, creating, 121
- New market forces, 3–6
 - business gravitation to low-cost regions of world, 4–5
 - commoditization of management innovations, 3–4
 - competitive advantage and value innovation, 5
 - ever-shortening product life cycle, 4
 - groundswell effect, 6
 - new customer value, 5–6
 - new economic model, 6
 - new global firms in emerging economies, 5
- New technologies and management systems, application of, 53–55
- New value creation
 - paradigm, 52, 55–58
- Nike, 3, 44, 71, 78, 89
- Nintendo, 22, 56, 72
 - Wii, 23, 72
- Nokia, 10, 17, 28
- Nondisruptive innovation, 30
- Nongovernmental organizations, 80, 105
- Nvidia, 127
- O2O (online to offline)
 - business model, 13–14
- Old obstacles, removal of, 36
- Omni Processors, 82, 83
- “On-demand” system, 44
- OnePlus, 30
- Open and convergence innovation, 111
- Open and free innovation, 44–46
- Oppo, 30, 67
- Opéra Garnier, 9
- “Order qualifier”, 18
- “Order qualifying criterion”, 64
- “Order winner”, 18

- “Order winning criterion”, 64
- Organizational
 - convergence, 71–73, 89
- Organizational value
 - creation, 55
- P2P platforms, 61, 111, 129
- Paradigm shift, 34–35
- Pathways in Technology
 - Early College High School (P-Tech), 131
- PatientsLikeMe, 132
- Paul Simon, 77, 78
- Peer to peer (P2P)
 - technology, 2, 10, 35
- People’s “well-being”,
 - enhancing, 118–119
- Philips Ambient
 - Experience, 75
- Platform-oriented
 - competition, 90–92
- Porter’s model, 73
- Proactiveness, 107, 109
- Producer-centered value
 - creation, 56
- Product and component
 - convergence, 70
- Product platform model, 92
- Proof of work, 10
- Prototyping, 83–84, 101
- Purpose of innovation, 117–118
- Qualcomm, 46, 94
- R&D department, 42
- Reckitt Benckiser, 96
- Reinventing innovation, 38
- Revolutionary innovation, 28–29
- RFID tags, 31
- Risk-taking, 107, 109
- Robotics, 74, 100–101, 126, 128
- Roomba, 38
- San Antonio River Walk, 23–24
- Sharing economy, 3, 6, 15, 74, 90, 110
- Simon, 110
- sine qua non*, 11
- Single-company-oriented
 - competition, 87–88
- Six Sigma, 3, 15, 54, 56
- Smart convergence, 102–103
- Smart future, 16, 51, 103, 113–114
 - challenges and barriers to, 119
 - development of, 118–122
- Smart learning machines, 7
- Smart sensors
 - wireless networks of, 100
- Social entrepreneurship, 122
- “Social innovation”, 11, 94

- Social network system (SNS), 6
- Softbank's Pepper, 54, 99
- Sony, 28, 88
 - PlayStation, 72
- Sources of innovation,
 - 31–39
 - future, 38–39
 - past, 32–35
 - present, 35–38
- Stable innovation
 - structure, 115
- Strategic focus, evolution of, 18–19
- Support technologies,
 - 26–27
- Sustainability and green management,
 - 121–122
- Swatch, 22, 23
- Synergy, 67
- TaskRabbit, 14
- Team-oriented
 - collaboration,
 - 84–85
- Technical convergence, 70, 74
- Technologies supporting living innovation
 - ecosystem, 98–103
- Technology-enabled innovations, 15
- Technopreneurship, 105
- Testing, 84
- 3-D printers, 84
- 3-D technologies, 13, 19, 54, 101
- 3Vs (volume, velocity, and variety), 16, 64, 65
- Thunderbird, 32
- Time division multiple access (TDMA) technology, 46
- Total quality management (TQM), 3, 28, 56
- Toyota, 28, 88, 116
- Transaction cost analysis,
 - 87–88
- Triple A Strategy, 115
- 23andMe, 102, 132
- Two-sided platform model, 92
- Uber, 3, 14, 36, 53, 54, 128
- Ubiquitous computing, 98, 100, 103, 128
- Ubiquitous innovation, 74, 75
- Unexpected occurrences, 32
- Value chain innovation, 16, 71
- Value-chain-oriented competition, 88–90
- Value cocreation, 57
- Value creation, 1, 2, 14, 49
- Value organization, 44, 71
- Variety, defined, 16
- Velocity, defined, 16
- Vertical integration, 26, 88, 89
- Virtual entrepreneurship, 110

- Visio, 44
- Vivo, 30, 67
- Vizio, 71, 89
- Volume, defined, 16
- WakaWaka, 123
- Warka Water Inc,
122–123
- Watson, 54, 75, 99
- Well-being of people, 102,
118–119
- Wireless networks of smart
sensors, 100
- Work process, need in, 33
- Xiaomi, 30, 67
- YouTube, 13