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
Aquaduct, 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
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
Innopreneurship, 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
<table>
<thead>
<tr>
<th>Term</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visio</td>
<td>44</td>
</tr>
<tr>
<td>Vivo</td>
<td>30, 67</td>
</tr>
<tr>
<td>Vizio</td>
<td>71, 89</td>
</tr>
<tr>
<td>Volume, defined</td>
<td>16</td>
</tr>
<tr>
<td>WakaWaka</td>
<td>123</td>
</tr>
<tr>
<td>Warka Water Inc</td>
<td>122–123</td>
</tr>
<tr>
<td>Watson</td>
<td>54, 75, 99</td>
</tr>
<tr>
<td>Well-being of people</td>
<td>102, 118–119</td>
</tr>
<tr>
<td>Wireless networks of smart sensors</td>
<td>100</td>
</tr>
<tr>
<td>Work process, need in</td>
<td>33</td>
</tr>
<tr>
<td>Xiaomi</td>
<td>30, 67</td>
</tr>
<tr>
<td>YouTube</td>
<td>13</td>
</tr>
</tbody>
</table>