

# Economy

The Global Human Capital Journal

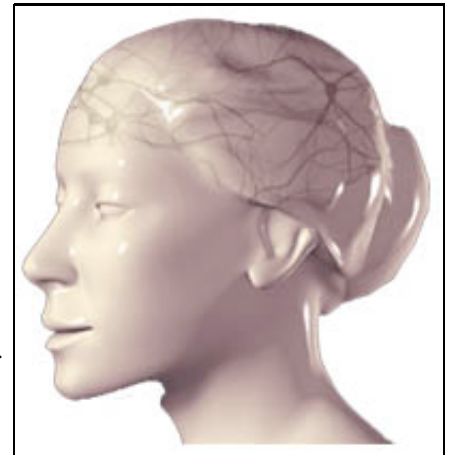
## The Knowledge Economy: The Ultimate Context for Understanding the Future

By Christopher S. Rollyson — Saturday, 25 November 2006

### Welcome to the Post-Industrial World

The Knowledge Economy is a post-industrial economy characterized by a highly developed information technology industry along with overproduction and commoditization in industrial and agricultural sectors. Widespread information technology (IT) adoption among producers and consumers enables all market participants to create and share information about all aspects of economic transactions. The creation, packaging and sharing of information is termed "knowledge." In the Knowledge Economy, information *about* an underlying good creates most of the good's differentiated value.

Consumer mobilization and engagement in the Knowledge Economy renders many of the Industrial Economy's rules invalid. In the Industrial Economy, consumers had little information relative to producers, they were isolated from each other, and they had no collective voice. They were at a disadvantage as market participants. The "second stage" of the Internet, "**Web 2.0**," facilitates P2P (peer to peer) information sharing, and its tools are free to use and accessible to anyone with an Internet connection. Producers have been accustomed to controlling information about their companies, products and services, but they will increasingly have to share this influence with Web 2.0-enabled consumers.



### The Knowledge Economy and Global Transformation

- The Knowledge Economy marks a profound shift in sensibility: customers become collaborators with trusted companies and other customers to create experience. Currently Web 2.0 resources such as weblogs, social networking sites, podcasts, video and VoIP are enabling real-time, rich interaction among individuals around the world at virtually no cost other than time (assuming computer and access). Industrial Economy "demographics" shatter into microsegments ("tribes"). Companies will need real-time information about customer experience, and customers themselves will gladly provide this information to trusted parties. For more, see [Web 2.0 and the New Age of Hacking](#) or [Gartner Throws Web 2.0 Gauntlet at IT Expo](#).
- For example, a consumer who believes she has a medical condition due to her prolonged use of a household cleaner can create a blog about her experiences and connect with millions of other consumers around the world. In the Knowledge Economy, the producer-consumer relationship will be transformed. For more, see [How the Knowledge Economy Will Transform Markets and the Producer/Consumer Relationship](#).
- From a raw material perspective, the Knowledge Economy enables human beings to do more with less because it creates its value through information. The Industrial Economy created value by delivering more goods for less money, as efficiency was its core competency. It was born in an era of scarcity, and its productivity led to unprecedented wealth. Henry Ford's famous quote, "You can have any color you want, as long as it's black," reflects this value: people were happy to have their first car, no matter the color. After several generations of this, however, the marginal value of the fifth television or the third car is drastically reduced.
- In the Knowledge Economy, consumers have unprecedented choice of products, services and lifestyles. Differentiation is achieved by focusing on customer experience, not products and services. Since having an experience is a creative process, leading companies change their focus to helping customers to have desired experiences by configuring all aspects of products and services. The products and services become secondary to customer experience.
- Comparing the shift from the Agrarian Economy to the Industrial Economy suggests the scale of transformation engendered by the Industrial-Knowledge Economy shift: 1) there was a widespread change in how human beings worked, how they lived and how they created value to the economy; 2) it was accompanied by social transformation such as the reorganization of families, great migrations to the cities and co-dependency (workers and industrialists depended on each other, where farmers were relatively self-

sufficient); 3) the state assumed greater power over individuals; centralization of work engendered centralization of power.

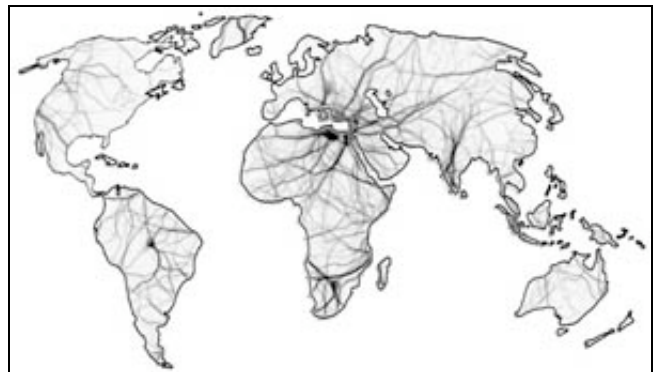
- The Knowledge Economy is fundamentally different from the preceding Industrial Economy or the Agrarian Economy because its core value is related to bytes, not bits—in the form of customized, applied information ("knowledge"). Its outputs are information-intensive services and "products," many of which are infinitely scalable, like CDs, software or Webcasts. Of course, the Knowledge Economy also produces numerous industrial and agrarian goods, but the *value of these goods is shifting toward information-intensive services* that are related to the goods—away from the underlying goods themselves. For a more detailed treatment, see [The 3.x Economies](#).
- The Knowledge Economy is global by default because communication and collaboration are increasingly economical and pervasive. The world is transitioning into a networked structure in which people and nations are explicitly interdependent. Interdependence represents a tremendous leap of faith. Europeans have much to share in terms of leadership—in effect they are engaged in "integrating" themselves with each other—after centuries of rivalry and bloody wars. They are forging a common destiny and embracing interdependence.

### Patterns of Adoption

- The Knowledge Economy can develop in a producer-led or consumer-led rhythm. Regardless of which market participants (producers or consumers) begin its development, the rules for both classes of participants undergo drastic change.
- The U.S. is a quintessential example of the consumer-led pattern. Jaded consumers are the product of several generations of high consumption. Moreover, high adoption of I.T. and extensive technology innovation are producing systems and tools for consumers and producers alike to begin to explicitly focus on experience. Companies like Apple, Starbucks, Nordstrom and JetBlue are leaders in experience-led value creation. Starbucks does not sell coffee; it offers the experience of drinking coffee. Apple makes computers and iPods, but it is no longer a computer company: its iLife explicitly enables customers to create and make digital content an integral part of their lives.
- Regarding Apple's iLife, note that consumer creativity is a key element of the value proposition: the Industrial Economy packaging of songs (the "album") is forsaken, and consumers create their own playlists and share them among each other worldwide. Now consumers no longer depend on the radio to discover new music; they suggest it to each other.
- India and China are examples of the producer-led pattern. India's well educated, English speaking knowledge workers are serving as the back office for scores of multinationals, leveraging strong I.T. resources and knowledge of collaborative work processes. Their wealth is creating a new consumer class, which is distinct from established consumer classes in wealthy countries because it is not jaded.
- China is rapidly becoming the workshop of the world due to its prowess at manufacturing, but its second phase will involve far more innovation and knowledge value add related to manufacturing. It is also creating a new consumer class. According to Ernst & Young, China is already the third largest economy in the world for luxury goods.
- Therefore, people are critical drivers of influence and power in two ways: as producers of knowledge products and as consumers. As China and India educate their work forces and gain in wealth, their influence grows along both dimensions: their high number of consumers will set the agenda for what all producers must offer.

### Implications of the Global Human Capital Market

- The Knowledge Economy is strikingly different from the Industrial Economy because it is less zero-sum. When the key input is a bits-based resource (wood, petroleum, farmland), when I use that resource, you cannot use it. However, information is infinitely scalable. Knowledge workers produce the most value through collaboration, and organizations become more networked and flexible.
- Much competitive human behavior—whether between individuals, companies or nations—stems from the zero-sum reality in which we have lived. The Knowledge Economy will potentially mitigate the pressure to compete for natural resources and engender a more collaborative impulse between people and nations. However, this will be extremely difficult because zero-sum is hard-wired into the human outlook.
- To use a manufacturing metaphor, information is the Knowledge Economy's key production input, and food and manufactured goods are non-production inputs. They are necessary supporting inputs for the knowledge enterprise but not critical to producing *differentiating value*.
- In the Agrarian Economy and the Industrial Economy, economic and political power was chiefly achieved by controlling tangible resources such as land and raw materials. The Knowledge Economy renders location less important.



- This means that a country with few natural resources and strong people resources can produce world-class economic value. India is a quintessential example of this shift. Consequently, the Knowledge Economy changes the rules of economic value and influence in the world.
- Previously, people ("labor") were regarded as an input to production because they were doing manual labor related to transforming raw materials into products. Knowledge work requires collaboration and thinking more than physical labor. "Third World" countries are rich in people but often poor in wealth because they have had limited effectiveness in converting their natural resources into influence.
- In the Industrial Economy, the expression "developing country" invokes the image of a relatively underprivileged nation that has had a limited ability to negotiate with global leaders. In the emerging Knowledge Economy, however, the expression is coming to mean "developing much more quickly than global leaders."
- However fantastic this may seem, the emergence of the Knowledge Economy is fortuitous. Humanity is increasingly confronted by the fact that many natural resources are painfully finite and will rapidly become even more so as economic wealth ramps up in China, India and others. For all of human existence thus far, resources have been infinite; if the resource is exhausted here, we will find it elsewhere, even if that means taking it away from someone else. In general, humanity has had an exploitative outlook with respect to resources and inputs. We need to develop a collaborative approach to utilizing finite natural resources. Clotilde Rapaille has done [some excellent work](#) on this; see [Marketing Rosetta Stone Revealed at New Paradigm Series](#).

## About the Author

Christopher S. Rollyson launched *The Global Human Capital Journal* in 2005 to address the most poignant issues of day for chief executives, namely global transformation, the reinvention of the enterprise, technology and culture. Mr. Rollyson has been a technology and marketing visionary and pioneer for over fifteen years, with distinction in corporate strategy and innovation. As a consultant and marketing executive, he has had a leading role in launching such game-changing offerings as: Java with Sun, e-business strategy with PwC Consulting, and SOA, Web services and architecture solutions with IBM and nVISIA. In 2006, he launched The Consumer Empowerment Adoption Curve™ and Transourcing™, a new approach to innovation that leverages high performance collaborative partner networks. He currently advises global enterprises on collaborating with Web 2.0-enabled customers—to drive innovation and to engage emerging markets.

Recently the Vice President of Marketing at nVISIA, he developed executive marketing programs and service offerings to drive the value of software transformation through service-oriented architecture and Web services, working with IBM, Rational and Grand Central. Previously a subject matter expert for e-business and knowledge strategy in PricewaterhouseCoopers' Strategic Change practice, Mr. Rollyson developed original models and services frameworks for e-business strategy consulting. He consulted to clients in automotive, software, telecoms, consumer electronics, chemicals and petroleum industries, advising global enterprises in e-business strategy and technology start-ups on innovation and business strategy. Prior to PwC, he led marketing for KPMG's Midwest High Technology practice, where he built one of the firm's first intranets to transform the marketing organization to a real-time team. Before that the head of marketing at a leading edge Java consultancy, he played a key role in co-launching Java via marketing alliances with Sun and Netscape. Mr. Rollyson has done graduate work in corporate strategy and economics at the University of Chicago, with additional studies at Die Freie Universität Berlin, L'Université de Clermont-Ferrand in France and il Liceo Americano d'Aviano in Italy. He earned his undergraduate degree from Kalamazoo College. <http://rollyson.net>

## About the Global Human Capital Journal

The Global Human Capital Journal addresses the global shift from the Industrial Economy to the Knowledge Economy, which is changing how human beings work and deliver value. In the Industrial Economy, products encapsulated the value of human work; in the Knowledge Economy, information produces the lion's share of value, and customer experience itself is the focus of commerce and government. A greater degree of collaboration among people of the world is possible than ever before, and increased interaction will bring unprecedented surprise and opportunity, especially because the potential is great to "level the playing field" among people of the world. Obviously, these developments hold significant ramifications for business and organizational strategy.

Global Human Capital covers two prongs of economic transformation: 1) strategically, how organizations can rejuvenate their relationships with customers and constituents by collaborating with them to drive innovation and 2) operationally, how organizations can build strong collaborative cultures and skills to engage the world's emergent network of expertise, both within and without their walls. We analyze how global sourcing and collaboration are transforming enterprise and government organizations, as they transition from relatively self-contained, closed entities to more networked, open organizations. Current categories (threads) are: Beyond Sourcing; China, India and Globalization; Economy; Innovation/Web 2.0; Technology/Leaders; and The Enterprise. Please visit us at <http://globalhumancapital.org>