

Wikinomics – How Mass Collaboration changes everything

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Abstract

Profound changes in the business environment are giving rise to powerful new models of production based on community, collaboration, and self-organization as opposed to the traditional system based on hierarchy and control. Millions of people now use blogs, wikis, chat rooms, and personal broadcasting to voice freely their opinions and views. Employees collaborate with peers across organizational boundaries, creating a “wiki workplace.” Customers become “prosumers” by cocreating goods and services instead of simply consuming the end product. This book gives a detailed account of how the world in general and business in particular are getting transformed due to changing technology, demographics and globalization.

Introduction

The Internet is moving into a new phase. More than connectivity, the real value of the Net today probably lies in connecting people and organizations together through blogs, Wikis, chatrooms and social networks. Mass collaboration is encouraging consumers, employees, suppliers, partners and competitors to share information and ideas. This is radically transforming the traditionally accepted business models. Vertically organized hierarchies and closed business systems are giving way to flat organizations and open platforms. It is an exciting world today of “citizen journalism,” wikis, blogs and social networks. Both individuals and companies need to change to adjust and operate effectively in this world. If they do not, they risk being left behind, even before they realize it.

The new world of collaboration

Collaboration is nothing new. Indeed, man is often described as a social animal. What has changed is the breadth and depth of collaboration. The tools available today empower people to take part in the global economy in a way, which would have been unthinkable a decade ago. Thus an individual can post a blog on a topic of interest, edit an entry in Wikipedia, post a picture on Flickr, post a video on youtube or take part in the Linux community’s software development activities.

But it is not in the “virtual” world of dotcoms and software alone that mass collaboration is becoming the norm. Even in traditional industries like FMCG, motor cycles and automobiles, mass collaboration is encouraging innovation, coordination of the supply chain and involvement of customers in the value creation process. As the authors mention right in the first chapter, “even the oldest of old economy industries can harness this revolution to create value in unconventional ways. Companies can reach beyond their walls to sow the seeds of innovation and harvest a bountiful crop. Indeed, firms that cultivate nimble, trust based relationships with external collaborators are positioned to form vibrant business ecosystems that create value more effectively than hierarchically organized businesses.”

The authors refer to the emerging paradigm, “Wikinomics.” The building blocks of Wikinomics are **openness, peering, sharing and acting globally**. Companies will find it increasingly necessary to open themselves up to ideas from outside their boundaries. Hierarchies are being replaced by a new form of horizontal organization called peering. The need to share IP is also increasing. Maintaining and defending a proprietary system of intellectual property limits the scope to create value. By sharing IP with the larger community, there is often scope for a company to build a much bigger business. Companies will have to not only think globally but also act globally to effectively tap a global talent pool and a market place of new ideas.

The authors examine seven different themes in the book:

- Peer pioneers – people coming together to work on projects.
- Ideagoras – tapping ideas from outside
- Prosumers – the blurring of distinction between producers & consumers
- New Alexandrians – initiatives to share knowledge for the benefit of the community.
- Platforms for participation – opening up platforms to allow the larger community to take part.
- The global plant floor – Involving people and entities across the world in the production process
- The Wiki workplace – Breaking down of vertical hierarchies and increasing collaboration between people working in an organization.

Peering

Peer production means producing ‘goods and services using self organized communities of volunteers. In reality, it is not a free-for-all as the definition would suggest. What effectively happens is that the skilled and experienced members of the community provide leadership and integrate the contributions of members. Wikipedia and Linux are good examples.

Peering is effective because of various reasons. First is self selection. The best people volunteer for the job unlike hierarchically organized communities. Second is motivation. The people who participate in the initiative are passionate about what they do. Quality is also good despite the slicing and distribution of work because the content goes through a number of iterations.

Peering is particularly effective when the job can be broken down into components that can be handled by different people individually and in parallel. The cost of integration should also be low. Such outsourcing of work often works best when the work is not central or core to the business model.

It may make sense to start in areas where the company’s own efforts have failed. Collaboration may be a cheaper alternative here.

The company must also decide whether to go it alone as the leader of a new community or join an existing group. It is also important to understand that leadership cannot be assumed unilaterally, but must be earned. The company must also show that the collaborative work is top priority by sending the right signals, such as stewardship by a senior leader.

Peer production offers various benefits. One is harnessing external talent. Today, it is not possible for any one company to come up with all the innovations in various industries. It helps companies to stay in touch with users. Participation in peer production communities may also boost demand for complementary offerings and provide new opportunities to create added value. Collaborating with open source communities can also help cut costs, compared to closed proprietary systems. By publishing IP in areas that are not core to the company but are core to a competitor, a company can undermine a rival's ability to monopolise an important resource.

The authors argue that peer production will continue to grow because of some key enabling conditions: access to computing power and applications, transparency, globalization, decentralization of knowledge and skills and the increasing complexity of systems.

If companies are not careful, peer production communities will undermine an existing business model, before the incumbent market leader even realizes it. So firms must invest in technology and business architecture and attempt to become truly networked and open enterprises and engage in collaborative networks.

Ideagoras

A large diverse network of talent is likely to solve well-defined problems more efficiently and speedily than an internal R&D effort. Ideagoras are marketplaces for ideas. A good example is Innocentive, launched by the global pharma company Eli Lilly. Innocentive helps solve unsolved R&D problems, by allowing companies to tap the talents of a global scientific community without the need to employ these people full time. Innocentive resembles eBay. Companies can post R&D problems and solvers can submit solutions and win cash prizes.

Ideagoras are of two types: Solutions in search of questions and questions in need of solutions. Solutions in search of questions are ideas and inventions that go unutilized. There are inventions that companies pursue but do not yield business value because they are a poor fit with the company's brands or strategy. Questions in need of solutions are unanswered problems that have not been addressed internally for reasons like cost, timing or lack of expertise.

Thanks to global ideagoras, companies have a wider set of options to pursue. Firms can acquire outside ideas and technologies instead of developing them inhouse. Alternatively, they can license out the technology instead of trying to commercialise the goods.

The authors do not suggest that companies must do away completely with internal R&D efforts. Without ideas and inventions of their own, companies may have little bargaining power in licensing and cross licensing negotiations. Moreover external R&D networks cannot handle all problems effectively. They may be good for problems where there are easily definable parameters and outcomes. But companies would need some core R&D staff to ask the right questions, draw up strategies, source external inputs and facilitate commercialization of the new idea.

The prosumers

The gap between producers and consumers is blurring. Increasingly, consumers are co innovating and co producing the products they consume. As the authors mention, “The most advanced users, in fact, no longer wait for an invitation to turn a product into a platform for their own innovations. They just form their own prosumer communities online, where they share product related information, collaborate on customized projects, engage in commerce and swap tips, tools and product hacks.”

Lego is a good example of how companies can use consumers in the product development process. In case of Lego Mindstorms, users can build real robots out of programmable bricks. When Lego launched the product, it found that several user groups were reverse engineering and reprogramming the sensors, motors and control devices that form the core of the Mindstorm robotics system. Today Lego has a website, *mindstorms.lego.com* to encourage tinkering with its software. The website provides a downloadable software development kit. Customers post descriptions of their creations, including the software code, programming instructions and the Lego parts required. Each time a customer posts a new application for Mindstorms, the toy becomes more valuable. Encouraged by the success, Lego has extended the experiment to its more traditional Lego bricks.

A company that gives consumers full freedom to hack, risks cannibalizing its business model and losing control of its platform. At the same time a company that fights users may lose out on a potentially valuable source of innovation. Companies will have to find a way to resolve this dilemma. As the authors mention, “Smart companies will bring customers into their business webs and give them lead roles in developing next generation products and services. This may mean adjusting business models and revamping internal processes to enable better collaboration with users. The opportunity to generate vibrant customer ecosystems where users help advance, implement and even market new product features represents a largely untapped frontier for farsighted companies to exploit.”

Prosumption goes far beyond product customization. Customisation is essentially about mixing and matching predefined components. This significantly limits flexibility and innovation for users. True prosumption means deeper and earlier engagement in the design process and products that allow customers to tinker and play around. Prosumption means the mindset changes from creating finished products to developing innovation ecosystems. Customers will expect to share in the ownership and fruits of their creation.

If they make it profitable for customers to get involved, companies will be able to develop a dynamic and fertile ecosystem for growth and innovation.

The new Alexandrians

The Alexandrian Greeks were passionate about accumulating and aggregating knowledge and bringing it in one place. But in the recent past, firms relied heavily on closed, hierarchical approaches to producing and utilizing knowledge. Today, knowledge is being increasingly viewed as the product of networked people and organizations looking for new solutions to specific problems. Collaboration, publication, peer review and exchange of precompetitive information are becoming keys to success in the knowledge based economy. The driving force clearly is the digitization of information and communications. In today's networked economy, proprietary knowledge has limited use. Companies that don't share knowledge are finding themselves isolated and by passed by the networks that share, adopt and update knowledge to create value.

The new web is helping to transform science into an increasingly collaborative and open endeavor characterized by:

- The rapid diffusion of best practices
- Stimulation of new hybrids and combinations
- Availability of just-in-time expertise
- Faster positive feedback cycles
- Increasingly horizontal and distributed models of research and innovation.

Profound breakthroughs can be expected in the coming years as scientists come to rely less on papers for disseminating their views and more on blogs, wikis, etc. Large collaborative knowledge sharing projects like the Human Genome have been possible only due to the Internet and emergence of distributed systems for aggregating, reviewing and disseminating knowledge.

The authors emphasise the need for stronger industry-university partnerships to facilitate disruptive innovations. Collaboration across institutions can jump start whole new research communities. Like Intel, it may make sense to award non exclusive IP rights to all the parties involved in collaborative research. This way, the different parties can retain their freedom to engage in further research, develop new products and partner with other players.

It is important for society to find the right balance between public foundation and private enterprise. It is necessary to access and build on existing knowledge to create new knowledge. An incentive system is needed that rewards inventors and knowledge producers and encourages dissemination of their output.

Platforms for participation

Open platforms are greatly increasing mass collaboration. A platform might be a web service, an e commerce system or a developer ecosystem where a company opens its software services and databases via an application programming interface (API). For

example, vibrant developer communities have formed around eBay, Google and Amazon. External partners can build tools to leverage database information, invent new kinds of stores/applications and generally integrate their business processes.

Thanks to open platforms, increasing numbers of developers are creating their own content and applications by combining various fragments they find freely scattered across the web. Government agencies are one of the largest sources of public data. But most of this goes unutilized. Governments can do much more to create new platforms that could provide countless new services. To start with, they can make more public information accessible to people and organizations than can put it to productive use.

Many would think that being open is equivalent to inviting your competitor home and having your lunch stolen away. Yet, when innovation is fast, fluid and distributed, it is important to build a loyal base of innovators that make the ecosystem stronger and more dynamic than the ecosystems of rivals. The bigger the ecosystem the better because bigger ecosystems support more raw intelligence and more variety.

The global plant floor

A wave of digital fabrication technology looks all set to put the means of producing physical objects in the hands of every household and community. Thanks to such technology largely driven by modularity, ordinary people may be able to produce objects that were earlier produced only by large scale industrial manufacturers.

The authors predict that the collaborative methods of open source software developers will soon be as amenable to cars and aeroplanes as they are to software and encyclopedias. If physical products are designed to be modular, large numbers of lightly coordinated suppliers can be engaged in designing and building components for the product, just like people can edit entries in Wikipedia. Increasingly, lead producers in fields such as semiconductors, computers, clothing and bicycles will become only responsible for the product concept, assembly and marketing. They will outsource manufacturing and in many cases most aspects of component design. Even assembly will be done by harnessing the global plant floor.

Companies must learn to focus on the critical value drivers. Working with various partners who are motivated to solve problems in their respective areas of expertise, can accomplish rapid design and testing. Modular architectures can be a great help here. Firms must work to create standards and modular architectures that specify product interfaces and leave it to suppliers to get the job done. By sharing the risk of large development projects with partners, costs can be reduced.

The Wiki Workplace

The new web is also reshaping organizations and workplaces in a fundamental way. Increasingly, employees are using blogs, wikis and other tools to collaborate and form ad hoc communities spanning departmental and organizational boundaries. Closed, hierarchical workplaces, characterized by tight employment relationships are being

transformed into self-organized, distributed and collaborative human capital networks, that draw knowledge and resources from both within and outside the firms.

Thanks to software, opportunities to manage knowledge have multiplied. In the traditional workplace, a decentralized approach to problem solving might mean discussion in the canteen or over a glass of beer in the evening or over a thread of emails. But this kind of an approach leaves no organizational memory of the event. Only the people who are directly involved in solving the problem retain their knowledge. Social software provides companies with a way to document and leverage moments of innovation with relative ease. It provides a living repository of knowledge that grows along with the organization. The insights can be used to benefit the organization in various ways.

The workplace is becoming a self organizing entity where centralized and tightly controlled processes are giving way to more spontaneous and decentralized forms of collaboration. Self selected teams are increasingly the norm. Employees are being given time to pursue projects of their interest. Decisions are being taken by tapping into the insights of a much broader and representative group of company stakeholders. Low cost self organizing approaches that tap collective intelligence within and outside the firm are becoming possible. Market based processes are being extended to tasks like resource allocation within firms. A market place approach minimizes politics and ensures that resources go to where there is the highest probability of value creation.

While workplaces will not disappear, monolithic physical workplaces to which the vast majority of employees report daily for work will become rarer and rarer. Employment relationships will become more fluid, less long term and more horizontal. Many people will like this as they search for flexibility, identity, ownership, authenticity and continuous learning both in the workplace and with their peers. Ad hoc self organized teams that come together to accomplish specialized tasks may become the norm.

Increasingly, people may derive their identity not from their workplaces but from communities of practice. People will like to engage with like minded peers not necessarily from the organization in which they work. Talent agencies, auctions and markets will play a larger role in managing the interface between employers and employees. Traditionally vertically integrated corporate functions such as marketing will be transformed.

Conclusion

The four principles of Wikinomics, openness, peering, sharing and acting globally will not only drive innovation and wealth creation but also transform the way we conduct science, create culture, inform and educate ourselves and govern our communities and nations. Openness is becoming a potent force for growth and competitiveness. What is needed is being smart about when and how we “blow open the windows and unlock the doors,” to build vast business ecosystems on top of platforms for participation.

A new kind of leadership is needed as the world moves towards open source and mass collaboration. How can leaders embrace the new world of wikinomics? The starting point for any leader is personal use of the new collaborative technologies, preferably in conjunction with a youngster who is Net Savvy. Next, leaders must draw up a comprehensive map of their innovation ecosystem. The map should include business partners, competitors, academia, public research institutes, think tanks, creative communities or communities practice and contract research organizations. All disciplines that may be relevant to the company's strategy must be covered. Companies must then ensure that their employees are plugged to the right knowledge creating networks, decide which ideagoras to join to source key innovations and when to license out one's own innovations.

Even while working in open source communities, companies must figure out a way of managing the cumbersome work of integrating the individual contributions. Control points are necessary to weed out poor contributions. Much of the proprietary differentiation from open source products will be achieved in the way companies integrate, deliver, and support their offerings with various complementary services.

Sharing makes sense under certain circumstances. The proprietary offering is falling and open sourcing it can inject the creativity and manpower needed to make it succeed in the marketplace. The advantages of pooling competencies and reducing R&D costs exceed the benefits of having exclusive rights on the knowledge produced. An open system may encourage innovation and efficiency. There may be opportunities to preempt the intellectual property rights of competitors.

While moving towards mass collaboration, plans must be flexible and must incorporate a higher degree of learning. Companies must adapt their strategies as they learn what works and what do not. Companies must take cues from their lead users. They must build a critical mass of participants that attract more and more people into the ecosystem. A core group of people forms the backbone of many open source projects. People in the ecosystem should be rewarded in line with the accepted principles of meritocracy. As the authors mention, "Providing the right for every one to enjoy non commercial barriers keeps the barriers to participation low. Reserving the right to appropriate private returns to those who make substantial contributions, on the other hand, will reward those who put in the most effort. Communities can use this more granular approach to ensure that all contributors in the ecosystem can obtain some benefits."

Openness does not mean giving up control of one's destiny. Firms must have well developed and well understood internal goals to guide external engagement strategies. Openness, peering and sharing must be viewed as complements to proprietary approaches.

Winning companies will increasingly be those that embrace the principle of boundarylessness. They will focus their internal staff on value integration and value orchestration, while treating the world as their R&D department. The age of mass collaboration will appear complex and uncertain. But as the authors mention, "Capabilities to develop new kinds of relationships, sense important developments and

value and turn nascent networked knowledge into compelling value are becoming the bread and butter of wealth creation and success.”