

Negotiated Order in Organizations in the Network Form

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Abstract: *Through the 20th century, the industrial age roots of hierarchical top-down planning and command-and-control supervision have been relatively constant foundations in management thinking. At the turn of the millennium, many futurists and leading thinkers had declared that these static forms of business governance would give way to more dynamic network-form, knowledge-based businesses. Since only a limited history has been collected on these new organizational forms to date, descriptions of how these businesses are governed differently have generally been more speculative than grounded.*

Since much of the success in business will shift from autonomous enterprises to inter-organizational relations, a renewed examination of negotiated order is now due. The growing need for negotiated order is presented in contrast to prevailing systems of legal order where incremental mandates, pre-established rules and fixed procedures ensured efficiency in placid environments. Industrial age businesses are presented as systems reaching their limits, following the perspective of Andras Angyal. Ideals in systems of negotiated order include the situated coordination of interests, flexible definition of initiatives and freedom of action amongst interested parties.

Attention is drawn primarily towards governance of the Linux community. In this example, architecture emerged from an amorphous group, and design and operational principles are collectively negotiated. The dynamism in purposes and directions is matched by continually-evolving inter-organizational alliances, and the voluntary assumption of responsibilities that benefit not only the individual contributor, but all parties. In addition to the Linux example, three more other businesses demonstrating features of negotiated order are discussed.

Negotiated order offers a platform for parties to innovatively deal with complex problems in the mess of inefficiencies, ineffectiveness and/or loss of legitimacies within and between organizations.

Introduction

Will the 21st century businesses be managed and governed significantly differently from those in the 20th century? The structure of many industries today is likely to be perceived as unchanging by current business people, as it might have been by their grandparents. In 1965, Emery and Trist established their causal texture framework that suggested that businesses should approach strategies and organization in different ways, corresponding to their environments. In placid and placid-clustered environments, simple goals and rules are sufficient. In disturbed-reactive environments, competition requires

strategy and tactics to deal with competitors. In turbulent environments, building alliances with dissimilar organizations would lead to success for all parties.

Our primary interest is in businesses that must operate in turbulent environments. The emergence of network-form businesses at the close of the 20th century leads us to consider how organizations and inter-organizational relations must be different from their industrial age predecessors. In this pursuit, our thinking may be structured into the following five sections:

1. What happens to business systems -- particularly the autonomous enterprises characterized by 20th century corporations -- reaching their limits?
2. How might a major network-form business be different? The example of the Linux community is discussed at length.
3. How is order in the network-form business governed differently? A predominantly negotiated order approach is contrasted to the prevailing legal order approach associated with industrial age business.
4. What additional features are associated with network-form businesses? Three additional examples are briefly reviewed.
5. Can a business proactively choose a negotiated order approach? Is it advisable, and what are the risks?

The path on which the reader is led is intended to weave concepts with stories of businesses that illustrate key points. Negotiated order is not a new idea, but it has been under-recognized over the past few decades. The business systems discussed are not necessarily intended as exemplars, but instead concrete examples where different approaches to governance may be considered.

1. Network form is related to businesses reaching limits

More than sixty years ago, Andras Angyal asked: what happens to a system when it reaches its limits? His underlying concern was with how to best manage integration processes in the face of disintegration tendencies and environments. His answer was based on the eighteenth Century advice of William Blake, to learn to see all the world in a grain of sand. Angyal argued that when a system reaches its limits the parts assume the whole (Angyal, 1941).

What happens when industrial age businesses reaches their limits?

The characteristics that Angyal identified did not seem common to social organizations in his era. In the 1940s, many industrial businesses would have been operated by their founders, or a tightly-knit association of principals. Organizations would have been simple functional forms, possibly geographically-centered.

Disintegration has become more relevant in today's businesses, led by professional managers distinct from shareholders, operating a diverse range of functions at a multinational scale. The connection from the consequences of yesterday's acts to tomorrow's opportunities is often ambiguous, at best. It is not uncommon for individuals to be structured into "matrix organizations" that are confused not by two or three lines reporting channels, but as many ten or twelve lines of authority. Industrial principles of order, organization and management are simply insufficient to deal with today's challenges.

Symptoms that may indicate that a business system is reaching its limits can include:

- Unsustainable economic structure: the enterprise or industry is unable to generate revenue sufficient to cover operating costs and required reinvestment. (This presents an opportunity for creative destruction).
- Questionable ethics or morality: the enterprise or industry demonstrates practices that are unsavory or undesirable.
- Inability to adapt to environmental changes: the enterprise or industry falls behind the needs of customers or other constituents.
- Turnover: the enterprise or industry is unable to retain employees.

In these situations, businesses may be described as being "at the edge of chaos", in either a favorable or an unfavorable way.

Network form is a response to complexity and turbulence

At the close of the 20th century, downsizing and outsourcing became common business approaches to rationalization, breaking down integrated monoliths. Simultaneously, initiatives to improve supply chains or value constellations demonstrated recognition that industrial processes cross corporate boundaries.

With the new network form, the promise of order in inter-organizational relations is heralded over prior inefficiencies in bureaucracy. Emerging challenges pose threats to the integrity of an organized entity if not effectively met. In network form businesses the social network becomes the content as well as the structure. This sets aside the paradox of whether form or content is more critical to success. Both are critical to include in improving responses to rapidly changing conditions. The context that results either initiates, or is initiated by, a need for a more fluid style of order. All can encourage viable patterns for renewal if dealt with via the appropriate means.

The network is seen as a platform for coordination and governance in which relationships transcend the bounds of organizational lines. The contrasting form is assumed in the promise of overcoming the former impediments of legal, written, and formal order.

Order in networks can be established in a different way

Hierarchies establish order through top-down direction. As organizations grow, the direction gradually becomes more formalized, into rules and procedures as evolved understandings of the "best way" to get things done. The strength of a hierarchy is that leaders at the top can clearly declare "official" policies, and resolve ambiguity through giving "yes or no" answers. When an organization is not moving, any direction may be better than no direction. Resources can be appropriately aligned with priorities, and activities can be coordinated towards higher productivity.

Hierarchies can reach their limits, however, in one of two dimensions. If a hierarchy is too tall, directions from the top can become distorted or watered down as they pass through too many managers. In addition, the syndrome of "too many chiefs" becomes a problem, and managerial overhead becomes creeping bureaucracy. Information from front line workers doesn't flow upwards efficiently, so responses to unforeseen events or obstacles are slow. On the other hand, attempts to flatten the hierarchy may dissipate focus, and the parts of the organization can become misaligned with the overall direction, and/or the activities of others. In the worst cases, not only is effort wasted, but activities can become counterproductive as individuals place organizational priorities below personal or subgroup goals.

Networks can more rapidly adapt to changing demands and environment challenges by connecting and disconnecting -- "plugging and playing" -- through inter-organizational relationships. Parties can redefine their relationships with each other in a fluid, peer-to-peer manner. Each part (or node) on the network can systemically adjust their self-referential systems continuously, as decentralized responses to local environmental conditions.

From a systems perspective, a hierarchy under stress is likely to respond in the way that it understands best: guiding order through the establishment of more and more rules, closer monitoring and stricter enforcement. In Angyal's analysis, continuing to struggle in integrating a dysfunctional whole is likely to be unsuccessful. An approach to allow the parts to take over the whole is required.

In the Linux story that follows, the network form of business operates with permeability through organizational boundaries. This permeability supports open access to parties who desire greater contributions and/or involvements in actions or their consequences. Mutual interests are served, at the levels of individuals, organizations, and the movement as a whole.

2. Linux: Greater fluidity than commercial development

The Linux community has led to a redefinition of software business. The center of the Linux approach is its operating system that stands in opposition to the principles of commercial software developers, such as Microsoft. Commercial software has typically been developed with internals hidden away as proprietary

secrets. In contrast, the source code to Linux is freely available, encouraging private individuals to play a role in development and enhancement of the product.

In 1991, a 21 year-old Finnish student of computer sciences, Linus Torvalds, purchased his first computer. Torvalds needed an operating system which could exploit the full potential of his computer, but soon found that the operating systems then available in the market were too costly or too low quality. As an alternative, Torvalds decided to develop his own operating system, based on an educational version of Unix called Minix. Torvalds consulted with fellow hackers over the Internet about some defects. Many showed their interest in his work (Torvalds, 2001; Erkkilä, 1999).

Soon, Torvalds released the first kernel of Linux (the core of the operating system) under the GNU Public License. Allowing other to focus on coding, Torvalds focused on coordination of the collective effort. By January of 1992, over 100 users had downloaded Linux and were regularly updating the source code. Early and frequent releases enabled the fast elimination of bugs, and the expansion of potential user applications (Kempainen, 1999; Kauppinen, 1995).

The first official Linux version was released in 1994. At that time, the users of Linux were mainly Unix hackers and net activists. Linux started to gain popularity among the people not familiar with the Internet. The Linux operating system then came to be distributed by Red Hat, and other distributors. These distributors contribute value-adding by assembling, testing and warranting the operating as plug-compatible with software under the same brand label (Aasarmoen, 1999, Shipley, 1999, and Palojarvi, 1999).

Science and engineering related industries have replaced high-end Unix clusters with inexpensive but computationally superior Linux clusters. With 12,000,000 users in 1998, Linux has gained a wide market acceptance, including use as a business server. Computer vendors such as Apple, Compaq, Corel, Dell, Hewlett-Packard, IBM, Intel, and Lotus now support Linux (Littman, 1999).

Table 1 presents a summary of the Linux approach as a breakthrough in the development of software.

Table 1: Linux as a response to a business system reaching its limits

Business system	Indicators of the business system reaching its limits	A reformed design with features of negotiated order
Commercial software development	<ul style="list-style-type: none"> • Bottlenecks on defect reduction, feature development • Demands to support multiple national languages and various platforms • Prohibitive costs to 	<ul style="list-style-type: none"> • Ambiguous path and priorities • Decentralized authority • Monetary and non-monetary forms of capital exchange • Co-producer roles

Diverse customer interests are a limit for the software business

Software is sometimes described as a unique product with "increasing marginal returns": the more that customers adopt a product, the more likely that it will become a de facto standard in the marketplace, attracting even more purchasers. It is true that the marginal cost of every digital copy of a finished product is near zero, but development of that "first release" of software can be a big bet. Software development is brutal business that is both knowledge-based and labor-intensive.

Software without hardware has no function. Software has the advantage and disadvantage that it can be continually updated and modified. If an automobile was software, customers would expect to see improved fuel efficiency and new features continually added on over its lifetime. Software written without errors is a holy grail. The release of software is an economic decision, based on statistical estimates of defects, and the estimated number of customers that will use specified features.

Writing software to support a single user is relatively cheap. Where software development costs escalate is in satisfying broad ranges of customers. There's always a competitive product that has a feature that is critical to some customer, so continued development can be directly traced to more revenue. Customers around the world will want their native languages supported, at the highest performance possible on whatever hardware platform they own. Building on the existing code base is always an incremental investment, as compared to starting over, so incumbent suppliers have advantage over newcomers.

The challenge with commercial software development is that it is founded on capitalist principles. Profits come from software companies restricting access to their intellectual property. Customers may become dissatisfied with poor product quality, but unless they are sufficiently influential, the bug that impacts them may fall as a low priority for fixing. On the other hand, customers have come to expect PC-based software priced in the \$100 to \$1000 range, and are unwilling to pay more unless they make money off the software itself.

Community-based software contrasts to corporate development

The open source approach to software development is in contrast to tightly-managed projects common in commercial enterprises. Key features, as listed in Table 1 include:

(a) Priorities and the path from now to the end state are ambiguous

Software development in commercial enterprises are planned, with schedules often driven by economic considerations: if releases are timed too frequently, customers will be frustrated at having to pay for upgrades; if releases are timed too

infrequently, customers may switch to alternative products that have desired features. The planning orientation of commercial software development encourages the promotion of "new" or "improved versions. Customers are encouraged to upgrade to the current version, and obsolete editions are no longer supported. Development is typically "timeboxed", with enhancements prioritized and scheduled. With a known end product and time frame, development projects can be analytically managed with a calendar (and stopwatch).

Linux, on the other hand, is understood as a product that is continuously developed (Sibley, 1999; www.tuxedo.org, 1999; Moody, 1997). Older releases that have proven to be reliable (although lacking features introduced later) continue to be generally available. Linux allows room for uncertainty. The "lateness" of delivery of a release (e.g. version 2.4) is sometimes noted in the press. Each Linux user takes responsibility for its future by being in a part of the engineering team. Before a release is officially sanctioned for shipment, however, developers continue to test and fix the product until it is considered to be reliable. This attitude does not mean that development is haphazard or not conscious of time. It does reflect, however, that developers know that the unexpected can and will happen, and that such delays should not influence the quality of the end product.

(b) Authority is decentralized and largely self-managed

Commercial software development that follow good practices in project management spend a significant amount of effort on developing specifications, estimating required effort, defining roles and tracking progress. Project managers may or may not have authoritarian styles, but are responsible for ensuring a project stays on track. Formal titles are recognized, and senior and junior positions are well understood. Most developers are expected to come into a shared centralized office, and it is not uncommon for hours to be tracked (for productivity metrics, if not for compensation).

Linux developers are scattered around the globe. Contributions of code can come from full-time corporate employees (e.g. working for IBM), independent contractors with special expertise, or even from students. Individuals can volunteer for tasks associated with their particularly interests. If a team has already been formed and is fully staffed, the volunteer may be directed to another initiative where skills can be appropriately applied. Activities are negotiated and coordinated within teams, without supervisors. There is no human resources function that hires and qualifies developers. Coordination takes place on a peer-to-peer level. Over time, software developers accumulate a reputation for competence and/or compatibility when working in distributed teams (Moon and Sproull, 2000).

(c) Monetary and non-monetary forms of capital exchange are recognized

Commercial software development runs on financial capital. Success means a product that is developed on time, on budget, to specifications that mean success in the market. In Silicon Valley startups, developers often seek to convert "sweat equity" in financial rewards by earning modest salaries, in the hopes that the options rewarded to them will make them millionaires.

A developer on a Linux team will never be a millionaire, unless he or she makes a fortune in another way. The terms of the public license make it clear that contributions of code become seamless parts of the Linux products. Effort may be acknowledged in documentation, but the true recognition generally comes from peers who can appreciate the contribution (Moody, 1997). It is not uncommon for independent software developers to volunteer in the Linux community, to establish credibility if paying jobs in other contexts. As an example, a security specialist who contributes key components to Linux is likely to have little trouble finding companies who wish to keep hackers at bay.

(d) Customers and suppliers become co-producers

In commercial software development, it is always clear who is the customer: he or she is the one footing the bill. This gives one party power over the other, in an asymmetric relationship. On the other hand, the supplier may choose to serve or not serve a particular client, depending on whether the product is completely proprietary, or has close substitutes.

In the Linux community, it is not uncommon for an individual to develop some functionality for his or her own purposes, and then release the code into the public license (Stallman, 2003). The original developer may gain some benefits if the code is improved by someone else in the community, but his or her efforts may be totally superseded by a better alternative. In the open source approach, if the original supplier is uninterested in further work on his or her code, a more motivated individual can pick up where the originator left off. Eventually, when everyone is using someone else's code, and is modifying the work of others, the distinct roles of customer and supplier become less important.

In his essay, "The Cathedral and the Bazaar", Eric Raymond compares the proprietary commercial software development to the open source approach of Linux. A cathedral is "carefully crafted by individual wizards or small bands of mages working in splendid isolation, with no beta to be released before its time". In contrast, "the Linux community seemed to resemble a great babbling bazaar of differing agendas and approaches... out of which a coherent and stable system could seemingly emerge only by a succession of miracles". Releasing early, delegating everything possible, and allowing the community to examine every detail represents an alternative way of reaching a high standard of quality. In the next section, parallels between a bazaar and negotiated order should become obvious.

3. Business systems may transcend limits by negotiating order

Ordered, or at least ordering, systems are critical to humankind, whom they are and what they do. Humans need to find an order beyond themselves, to which they can relate. This is the basis for many non-rational aspects of society including religion, politics and poetics.

Order in social affairs may be established in at least one of two ways

Contemporary man has much experience with what we now call legal order. We see this in public, private and religious sectors. In religion, this is seen in the reliance on an authoritative “book” such as the Bible or Koran. In science this is seen in the reliance on the most recent “scientific journal articles”. Legal ordering systems rely on leaders, laws and formalized schemas to preorder reality and divine some external meaning. This meaning may be completely artificial, to an internal absence that may also be artificial.

Legal order attempts to formalize that which can be captured and codified in prescribed rules, rules that emphasize what should not be done. Whatever is not accounted for within a system of legal order can, and generally will, create future troubles for the ordering system. As such a legal order attempts to describe, *a priori*, what may arise in the relationship and how it will be dealt with. Legal order depends on the capabilities of, while it works within the limitations, of the written text. Any legal order must be linear, clearly defined, bounded and formalized.

Negotiation is part of a world often forgotten by leaders in large and mature organizations. Negotiation respects spontaneity at the edge of the present, as it is simultaneously open to being guided by ideals of an improved future, jointly created. To operate, participants must be highly motivated in intent yet flexible in direction. Negotiation rests on the presumption that people can coordinate themselves, and their interactions with each other, without an external “ruler.”

Formalization generally abhors ambiguity. It seeks clarity at all costs, even if the results are clearly wrong. Negotiation is a different kind of process. It seeks the fluid and where it works best is part of the flow. Negotiation frustrates formality because about the only thing that can be clearly said about the fluid is that it is becoming. Negotiated order is offered as an alternative to the prevailing system of legal order. Legal order rest on the foundations of command and control mandates. Legal order requires fixed procedures, and relies on the predictability found in hierarchical forms of governance. Rules as written and administered are the center of attention and the basis of operations. Most industrial organizations, including governments, rely on legal order.

Negotiated order should not be viewed as a virtue by itself, but instead in the light of limitations emerging from its natural enemy -- legal order. Negotiated order and legal order are each approaches better suited to quite different environments. Negotiation provides limited value in environments that are filled

with predictability or are based on stability. Negotiated success is continuously defined by the conditions of the moment. Success unfolds as people are given responsibility to think, coordinate and respond in real time. Preplanned, fixed and memorized procedures represent the antithesis of negotiation, but may serve as an important stimulant to energize the need for it. Negotiation comes with a different set of attitudes, educational practices and measures of performance. The fixed positions and routines of static organizational structures can be replaced with fluid networks of people and ideas connected flexibly in a negotiated order.

Negotiated order exists alongside legal contexts in business

Negotiated order has been highlighted in past research in diverse fields such as health care and environmental protection. Its relevance to emerging problems within contemporary business is easy to see.

Scholars have long recognized that business people commonly resolve conflicts through means other enforcing contractual covenants. Evidence of a preference towards negotiated order over legal order was observed Macaulay (1963):

Preliminary findings indicate that businessmen often fail to plan exchange relationships completely, and seldom use legal sanctions to adjust these relationships or to settle disputes. Planning and legal sanctions are often unnecessary and may have undesirable consequences. Transactions are planned and legal sanctions are used when the gains are thought to outweigh the costs. The power to decide whether the gains from using contract outweigh the costs will be held by individuals having different occupational roles. The occupational role influences the decision that is made. [p. 55]

Perhaps the most cited study in the area of negotiated order is the study of two mental hospitals by Strauss and his colleagues (1963). They sought to capture how members of various occupational groups (e.g., doctors, nurses, patients, lay workers) negotiate the meanings, routines, and tacit agreements of work against the backdrop of beliefs about the "proper" nature, goals, and methods of psychiatry. Most noteworthy in this study was that rules governing the actions of various organizations are far from extensive, clearly stated or clearly binding. It seems that hardly anyone knew all the rules, much less to what situations they applied, for whom, and with which sanctions. In addition, the personnel proved adept at breaking the rules when it suited their convenience or when warrantable exigencies arose.

In the situations described by Strauss et al. (1963), there existed a profound belief that the care of patients calls for a minimum of hard and fast rules and a maximum of innovation and improvisation. Hence, the area of action covered by clearly enunciated rules is really very small. Thus actions are governed more by shared understandings than commands. Rules that were recognized were still continually negotiated, argued, or even ignored at convenient moments. The

governing principles were far from universal prescriptions without limitations to their context or application, or time frame of validity. The hospital was a place where agreements were constantly established, renewed, reviewed, revoked and revised.

Strauss (1978: ix) has suggested that even the most repressive of social orders are inconceivable without some form of negotiation. In such totalitarian institutions as maximum security prisons, staff and inmates may negotiate their own interpretation of the social order, often constructing an alternative that may be just as formal, although tacit, as that it replaces. The most fundamental, and most used, alternative form of order is legal order. It is always in the background. In the corporate arena, corporations exist within nations, so they must always be aware of the legal order of their contexts. The laws of the state in which a business is incorporated applies to it functioning – although there are continuous efforts at bargaining to reduce barriers seen as unfavorable to commerce.

(Negotiated) order has a long history in philosophy on social systems

The ideal of having responsibility for self in social settings dates back to the ancient Greeks. Aristippus, Zeno and some early Greek libertarians motivated others to action. These same ideals are later indicated in the writings of philosophers of the Age of Reason, such as Voltaire, Diderot, and Rousseau. These philosophers resented the abuses of authority and played with the notion of a society without a government. "Humanly devised laws, not being a product of wisdom, but a result of fear and greed, should be annulled and replaced by the decisions of reasonable men" (Madison, 1928).

Peter Kropotkin, a cultured and persuasive advocate of revisiting the anarchist ideal of the ancient Greeks, defined the agenda as "the most complete development of individuality combined with the highest development of voluntary association in all its aspects, in all possible degrees, in all imaginable aims...which carry in themselves the elements of durability and constantly assume new forms which answer best to the multiple aspirations of all" (Kropotkin, 1927). He believed that there is a natural order to the social as well as the physical world, and he wanted to build a society in which man can live according to these rules of nature (Mason, 1945)

Kropotkin perceived the physical world as a self-regulating, self-adjusting process where society has the capability to self-adjust. He played with the concept of natural order as an alternative to external social authority and as a platform to raise the importance of the judgment of the individual. This is related, but quite different to the spontaneous social order proposed by Hayek. Hayek describes an order that emerges in social life without conscious reflection or planning. This spontaneous order thesis may be related to principles of self-organizing and self-replicating structures that arise without design or even a possibility of design, but it can still lead to orders that become fixed (Gray, 1948). The human fixation on the fixed seems at least as strong as the urge to be free. The importance of our argument is to stay with the fluid even though there is

always the possibility to go towards the fixed or the fixing of the fluid. This is in part due to the spontaneous nature of the reality with which we deal, where we bring radical ignorance into each situation.

The spontaneous social order to which Hayek refers can, in fact, organize and utilize fragmented knowledge dispersed among millions of people while a planned system only becomes frustrated with that which does not appear to fit. Hayek's examples of spontaneous social order are: law and morals, language, market and monetary systems. Additional spontaneous orders are seen to emerge in natural processes, such as the formation of crystals and even galaxies (Gray, 1948). Using the term spontaneous for some of the above largely misses the point of self-organizing systems and the contexts from which they emerge. Promulgation and implementation of laws and morals are perfect examples of the tendency to fix that which is fluid, and to formalize the informal emergence of reality. Many things can, and perhaps should be, fixed, but those are not the subject matter of this paper and the research that lies behind it.

For some, the key message of the negotiated order perspective is that all social orders are negotiated orders (Regan, 1984). However, this is only one part of the story. "[T]he concept of negotiated order was designed to refer not merely to negotiation and negotiative processes. It also points to the lack of fixity of social order, its temporal, mobile and unstable character, and the flexibility of interactors faced with the need to act through interactional processes in specific localized situations where although rules and regulations exist nevertheless these are not necessarily precisely prescriptive or peremptorily constraining" (Strauss 1993:255).

Negotiating order is distinct from bargaining

Although the negotiating process is sometimes invoked situationally to resolve bounded issues, many of today's business executives may be unfamiliar with its potential power to bring order into the most systemically untenable contexts. Negotiation has arisen in response to difficulties in extensive reliance on the fixed features of formalization, and the processes of formal bargaining on which formal organization relies.

In its essence, negotiating order must be seen as distinct from bargaining. The interaction ritual focuses on who gets more, and who gets less. The composite economics are held constant. With bargaining, one party may be expected to say, "what's mine is mine but what's your is negotiable". This is not negotiation, but instead arrogance cloaked in bargaining. Establishing order through negotiation was relegated to a reduced role in the development and expansion of industrialization.

Negotiated order is a robust means to govern process and results where all participants can continue to seek to improve their standing but can only find success in finding creative ways to act so as to demonstrably improve the standing of others. Negotiation processes do not shy away from the long-

shunned problem of the commons. In this it differs from bargaining that is based on zero-sum arguments over how to divide a fixed pie of resources. Within the negotiation schema the pie is not fixed and interaction focuses on how to enlarge it, not how to divide it. The attraction of negotiation is that the dimensions of the pie will be changed. The danger is that it will become smaller.

Negotiated order is an option when legal order reaches its limits

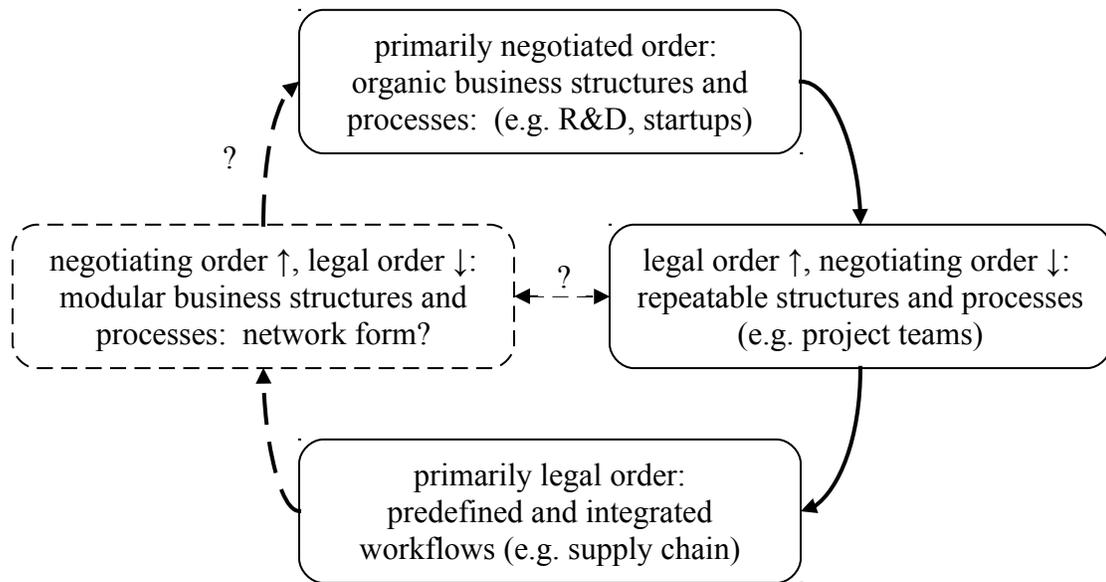
Many of the frictions in today's organizations are posed as minor issues of misalignment, but a growing portion of them seem endemic, arising from limitations in their systems of governance. The environment of business has become less predictable. So too have the internal operations of businesses. The drive for success has shifted attention away from parts organized in simplistic functional hierarchies, towards the interaction between parts in networked forms. Instead of controlling fixed entities through supervision, bureaucratic frictions are dissolved to improve flows through linkages. This change in orientation poses difficulties for those who focus on the understanding, use, and the performance of entities. Managers can not rely on fixed presuppositions, rules as written and belief in the ultimate truth of a legal order. More dimensions need to be considered, including the perspectives in which an entity connects and is connected.

The flexibility offered by a negotiation process encourages individuals to act openly in pursuit of their own interests, while learning what those interests actually are, and then allowing redefinitions of those interests, to account for the importance of larger and longer social and natural interests to which we are all intrinsically connected. This allows participants to see how fragile and tentative contemporary reality is, and that is increasingly based on networks of interests that operate as fluids. This differs significantly from seeing organizations as fixed, forceful and long-lasting locations of positions of relative authority where positions are seen as so critical to demand immediate filling of the box with an "acting" holder. While traditional organizations are set up to take advantage of the potentials of hierarchy, the clarity of fixed rules of order and predictable routines, we see how successful organizations now seem to emphasize non-hierarchical relations, revolutionary experimentation and spontaneous responses. These appear to be better suited to govern relations in environments that shift quickly and unpredictably.

A similar pattern occurs in the life cycle of a product or service. Manufacturers or service providers achieve success in innovation by matching their offerings to customer's needs at that point in time. As they strive to produce to the scale of mass markets, they lose some touch with individual customers and clients. The organization regains its value through improved customer intimacy -- which may be seen as a form of negotiated order. In the most involved relationships, negotiated order may urge the customer to adopt some responsibilities of a contributor or a co-producer, deepening the expertise and communication beyond that normally assumed by a customer in an arms' length or transactional style.

Negotiated order may re-emerge in the life cycle of a business

Figure 1: Changing emphases in negotiated order and legal order



In this frame, three phases can be plausibly described:

1. **Primarily negotiated order:** When organizations are small, and still in the formative stages of development, organizational structures and processes are organic. In the classical Silicon Valley garage startup, the technical and business roles are mixed, and individuals mutually adjust to get whatever is required, done. As the organization grows in size, and its administration becomes unwieldy, the next step may logically be towards a more legal order.
2. **Emergence of a legal order:** The role of a formal order becomes prominent while the role of a negotiating order becomes secondary. In order to commercialize an invention, repeatability (often as mass production) requires organizational roles be clearly defined, and handoffs from one party to another be codified as processes. Reporting and communication lines are relatively straightforward, with clear articulations of project teams or functional divisions. In effort to create greater efficiencies, the business may enter ...
3. **Primacy of a legal order:** Herein there is an effort to define the heuristics as well as rules within and between organizations so that the supply chain flows efficiently. Herein, industrial engineers may be called into perform time-and-motion studies to find the "one best way" to use resources.

In this third phase, one of the great potential risks is creeping bureaucracy and ossification. Greater efficiency can be achieved by narrowing the scope of offerings and activities. The full range of customers and constituent interests may not be served, and/or product assortments may be reduced.

4. Re-emergence of a negotiated order: We believe that the network-form organizations described earlier may represent a fourth phase: a phase where negotiated order becomes prominent and legal order returns to a secondary status. Therein, the design, structure and process are modular and may be reconfigured in a number of ways, to suit the situation at hand.

The focus turns from these formal aspects within and between organizations to the broader context and ways to appreciate to where it is going. In this analysis, three aspects are uncertain:

- It is not clear that this is a closed loop, and the phase where negotiated order rises and legal order falls will lead to a system where negotiated order predominates. It is possible that the successful network form organization must be so adaptive that it needs to shed most of the constraints of legal order, but this is not a certainty.
- It is not clear whether the arrows should only lead one direction, or whether they can be bi-directional. As an example, once a garage shop operation becomes a viable commercial competitor, it's not clear that they can return to their origins.
- It is not clear whether it's possible to short-cut the loop, and consciously choose more negotiated order before the legal order turns into bureaucracy. Establishing rules requires bringing certain personality types into an organization, who may not appreciate reducing controls and loosening monitoring.

More observation of network-form organizations may lead to a better understanding of the differences between these phases.

4. Features of negotiated order appear in other businesses

In addition to the Linux example described earlier, we describe some additional businesses that seemed to have moved from a reliance on legal order towards alternative ordering systems. An important characteristic of these organizations is that they are seeking or have discovered a form of negotiated order. They each have embraced the permeability of organizations at the perimeter, where traditional gatekeepers managed from the center have been reduced or reverse their roles to focus on enhancing the boundary gaps that allow freer access. The

role of the individual actor in the formation and evolution of these organizations to represent a community of interest is noteworthy.

Table 2: Additional examples of business system reaching their limits

Business system	Indicators of the business system reaching its limits	A reformed design with features of negotiated order
Home furnishing manufacturing and distribution	<ul style="list-style-type: none"> • Low inventory turnover requires high markups • Expensive to ship and deliver • Shopping experience requires intensive search 	<ul style="list-style-type: none"> • Matched product assortment custom designed and built by contractors • Catalog shopping "at home" convenience, then pick up at warehouse • Consumer deliver and assemble own knock-down furniture, reducing cost
Internet encyclopedia	<ul style="list-style-type: none"> • Collecting and verifying information is labor-intensive • Corrections and revisions are slow 	<ul style="list-style-type: none"> • Open content, editable by any registered contributor over the Internet • Reversion procedures for few counter-productive entries • Clear protocols for dispute resolution
Outdoor sporting gear and clothing	<ul style="list-style-type: none"> • Specialized products expensive and difficult to find • Ethical consideration for the ecologically-minded 	<ul style="list-style-type: none"> • Co-op ownership structure with \$5 membership fee • Private label products, catalog, plus retail stores • Leading environmental advocacy

The home furnishings industry was expensive and inconvenient

For nearly three-quarters of the 20th century, the home furnishings market remained largely unchanged. The industry was following an approach of legal order, planning and distributing furniture in a style that could be described as "make-and-sell".

Small manufacturers near choice stands of hardwoods employed shops of woodworking craftsmen to hand assemble home furnishings such as dining room tables and bedroom chests. These bulky items were then shipped to a small number of chain retailers, and a large number of independent retailers. Furnishings are generally purchased by homeowners infrequently, with periodicities in the decades. Slow turnover in inventory required relatively high margins to keep the industry in business.

From the consumer's perspective, this business system reached its limits in economic viability in the 1980s. As the baby boom generation became dual career couples, their budgets for consumer durables became squeezed. In addition, in a time-starved schedule, shopping for furniture was inconvenient and took too long. Finding pieces that would match a particular style either entailed entering an order into the backlog of a particular manufacturer, or visiting multiple retailers to see what they had in stock.

Ikea became designer / distributor, with consumers as co-producers

The now famous IKEA catalogue was first published in 1950, when Ingvar Kamrad first sold furniture from his farm called Elmtaryd in Agunnaryd, Sweden. Five years later, specially designed IKEA furniture was produced in pieces to facilitate storage and shipping. Consumers followed a two page instruction sheet to assemble the final product at home.

For the consumer, Ikea has practically cornered the market in value-priced furniture. The company provides broad assortments of coordinated furnishings that can be mixed and matched to the immediate needs of the consumer's apartment or home. Time is conserved as consumers can browse through a catalog (and now a web site) to check styles and dimensions, and then make a single trip to pick up his or her selections. Flat-packed furniture components help to reduce shipping costs, and packages are designed to be transportable in cars or minivans. It is feasible to furnish an entire house -- of any size -- from the product selection available at a single Ikea store.

Ikea illustrates a systems perspective that is consistent with the negotiated order approach. The company primarily plays the role of the distributor, negotiating relationships between designers, producers and suppliers of furniture components, in an end-to-end integration. This integration includes consumers, who are co-opted with delivery and assembly activities, thereby becoming co-producers of the product. Ikea has now grown to 157 warehouse stores in 29 countries (Stodola, 2003).

Researching, verifying and updating encyclopedias is too slow

Diderot, in publishing the *Encyclopédie* in 1745 France, is often cited as the one of the last individuals to "know everything". By outlining the current state of knowledge about sciences, arts, and crafts, he made knowledge possessed by the few accessible to the many. This may be compared to development of the *Oxford English Dictionary*, that started in 1879, with the first edition finally published in 1933 -- 18 years after the death of the first editor. Maintaining this body of knowledge represents a cycle measured in decades.

In today's world, the exponential advancement of knowledge has seen traditional methods of encyclopedia development reach its limits. No matter how many researchers and writers are assigned to the staff, content will come in at a rate greater than the ability to check and update the entries.

Wikipedia empowers individuals to contribute and validate entries

The Wikipedia is a free Internet-based encyclopedia started in 2001 that follows the GNU public license, previously cited as a foundation of Linux licensing. Originally started as an Internet startup project by Jimmy Wales and Larry Sanger, it was based on Wiki software that allows anyone to register and edit entries to selected web pages. The initiative was transferred, in 2003, to a not-for-profit institution called Wikimedia (www.wikipedia.com).

The Wikipedia approach is to allow all Internet users to contribute content, assuming that the largest majority of people are honest and conscientious. If an individual locates content which is considered wrong, he or she has the power to edit the page to correct the inaccuracy. Prior entries are automatically preserved, so that later editing can be reversed. Abusers can be banned by various means (e.g. blocking of IP addresses).

Contributors are encouraged to maintain a "Neutral Point of View" in the pursuit of entries that are relatively free of bias. The seriousness of maintaining order through negotiation is explained at length in entries on the "power structure" of Wikipedia, referring to anarchy, despotism and technocracy. Wikipedia is clear not only on its strengths (e.g. wide accessibility, rapid growth in content and continual updating) but also its weaknesses (e.g. overemphasis on popular topics while obscure subjects are underserved, inconsistent writing styles and lack of graphics). The ongoing success in governing the content of Wikipedia may be observed by anyone with access to the Internet.

Outdoor sporting enthusiasts had limited access to specialized gear

In British Columbia, Canada, a number of recreational mountaineering enthusiasts were frustrated at the inability to locally purchase sporting gear. When Canada Customs officials were thought to be monitoring license plates at the Seattle REI store, six individuals decided in 1971 to incorporate a cooperative specializing in outdoor equipment.

Mountain Equipment Co-op leads in social and environmental advocacy

MEC is a designer, manufacturer, and retailer of outdoor gear. The organization is a co-operative, owned and directed by its members, with 5 stores across Canada and a global mail order operation. With a \$5 shareholder fee, it has 2 million members -- approaching 10% of the Canadian population.

MEC not only is reputed as a good employer, but has followed through on its vision of action for a healthy planet. In its Old Growth Policy, it designs products and selects suppliers that prefer recycled fibers, and has been phasing out products that endanger old growth rainforests. In the construction of new retail stores, it has designed "Green" buildings that meet standards on energy efficiency, minimal environmental impact, occupant health, comfort and functional

performance. The Ottawa store was the first retail building to comply with Canada's C2000 Green Building Standard.

In support of negotiated order, Mountain Equipment Co-op demonstrates that businesses can not only satisfy the minimal legal requirements, but can reflect the larger values of their constituents.

These three additional examples suggest that the Linux movement may not be a unique case where negotiated order is now playing a larger role in business. Escaping the limits imposed by legal order may demonstrate features in other businesses that are migrating to the network form.

5. Can organizations proactively shift to negotiate order?

In the examples described above, the focus has been on businesses that are organized in a network form, and gone beyond the limits of legal order. These examples are all successful businesses that have unique cultures at their core. For the majority of businesses that rely on regime of legal order, the feasibility of establishing greater negotiated order is now considered in three closing sections:

- (a) How does charismatic leadership play in going beyond a business system's limits?
- (b) How does negotiating order perform under various environments?
- (c) What are the risks associated with adopting a negotiated order approach?

The spirit of these closing thoughts is to encourage the reader to consider taking action beyond the limits of legal order.

Negotiated order as an approach beyond charismatic leadership

In popular business magazines, business that survive traumatic change are often portrayed as being saved by a charismatic leader. A style of negotiated order should not begin and end with the regime of an individual.

In two of our examples, charismatic individuals clearly initially led their organized in a spirit of negotiated order. The influences of Linus Torvalds or Ingvar Kamrad should not be diminished, but the proof lies in the durability of continued success of these businesses. Entrepreneurism can create new linkages that allow the business to flexibly evolve and grow over time. As the business matures, however, centering on original founders can represent a static element that is complementary to legal order.

Negotiating order recenters attention from individuals (or nodes) in a network, towards interactions with other parties. Linkages to suppliers or to customers can gradually be transformed into co-producing alliances. In an alternative view,

these organizational systems initially succeeded by incrementally extending the structures on which they were germinated. When performance of the enterprise plateaus, the way forward is brought into question. A systems view of business requires more than heroic leadership.

If a return to stability is not expected, negotiating order is an option

In the evolution of a business, negotiated and legal orders are means by which one organization will coordinate with another at various points in time. It is possible that the increasing relative emphasis on one means, over the other, may be appropriate relative to changing points of development in the maturity of an organization, or relative to changes in an environment.

Table 3: Responses to establishing order in various environmental states

Environ-mental conditions	Approach to establishing greater legal order	Approach to establishing greater negotiated order	Considerations about legal order vs. negotiated order
Placid	No-fault insurance: our group can each act independently of your group, and when conflict occurs, recourse will follow a predetermined schedule	Worry about it later: we can each act independently, and if conflict occurs, recourse will depend on the situation	If the cost associated with damage is catastrophic, legal order may reduce anxieties; if the cost associated with damage is insignificant, negotiated order works
Placid-clustered	Divide-and-conquer: we can map out the territory for your group and the territory for our group	Conflict avoidance: if we see each other in the territory, we'll work out which group should stay and which group should go	If the world is big, negotiated order works; if the world is crowded, legal order reduces conflict
Disturbed-reactive	Joint forces: we can create a joint list of enemies and work together	Opportunistic aid: if one group is in trouble and the other party is nearby, the other party will help	If the number of potential enemies is high, legal order enables preparation; if threats are low, negotiated order tailors to the situation

Turbulent	Build up the dike: when a flood is imminent, we can band together to fight against nature	Put out to sea: when a storm is imminent, we can take the ships away from shore and each other	If the biggest threat is from sources external to us, legal order ensures we handle everything; if the biggest threat is us smashing into each other, negotiated order ensures we're appropriately spaced apart
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Diagnosing a need for greater order, and choosing the path to take, can have important consequences. We suggest that organizations and inter-organizational relations that are now primarily operating under legal order should instead consider negotiating order when their limits are reached. This approach is not without risks.

Negotiated order does not establish the permanence as does legal order

Some benefits and risks associated with establishing greater order are depicted in table below. For instance, in a situation where increased legal order is required and greater negotiated order is attempted, superficial symptoms may be alleviated only on a temporary basis. On the other hand, when greater negotiated order is called for, and legal order is increased, opportunities may be lost. One of the motivations for engaging in long-term inter-organizational relations is the potential for collaboration on additional opportunities that were unforeseen at the outset.

Table 4: Benefits and risks of approaches to establishing greater order

		Action required	
		Greater legal order	Greater negotiated order
Action taken	Greater legal order	Improved conformance to the terms and conditions specified	Reduction of the potential value creation and capture to lowest-common-denominator terms
	Greater negotiated order	Situated actions don't get generalized, so responses are inconsistent	Pursuit and capture of unforeseen new opportunities as they arise

The challenges of instability from conditions of ambiguity are not trivial. Organized entities, by their nature, seek stability as a basis for operations.

Sometimes a social group prefers an enforced wrong stability to await a more appropriate one to emerge. More innovative and flexible ways are needed to respond to the resulting ambiguity. In a word, we need to learn to better manage that which appears fluid. We argue that this need is met with systems of negotiated order.

References

Aasarmoen, G. 1999. Communications News, August 1999.

Angyal, A. 1941. *Foundations for a Science of Personality*. Cambridge, MA: Harvard University Press.

Emery, F.E., and Trist, E.L. 1965. The Causal Texture of Organizational Environments. *Human Relations* 18: 21-32.

Erkkilä, M. 1999. Linux ei ole vielä joka miehen tuote. *Tietoviikko* 9.10.1998.

Gray, J. 1948. *Hayek on Liberty*. Oxford, UK: Basil Blackwell Ltd.

<http://www.tuxedo.org/~esr/writings/cathedral-bazaar/cathedral-bazaar-1.html>

Kauppinen, J. 1995. Linux-kauppiaan Red Hatin anti yli odotusten, *Talous* 14.8.1999.

Kempainen, T. 1999. Linuxilta odotetaan ihmeitä. *Tekniikan maailma* 2/1999. Pp. 34-40.

Kropotkin, P. 1924. *Anarchism: Its Philosophy and Ideal*. In Roger N. and Baldwin (eds). Kropotkin's Revolutionary Pamphlets.

Littman, J. 1999. Software's new icon. *Upside*, September 1999, Foster City.

Macaulay, S. Non-Contractual Relations in Business. 1963. *American Sociological Review* 28: 55-67.

Madison, E.S. Fourier and Anarchism. 1928. *The Quarterly Journal of Economics* 42: 28-262.

Mason, C.A. 1945. Anarchism in the United States. *Journal of the History of Ideas* 6: 46-66.

Moody, G. 1997. The greatest OS that (n)ever was. *Wired* August 1997.

- Moon, J.Y. and Sproull, L. 2000. Essence of Distributed Work: The Case of Linux Kernel. [http://: www.firstmonday.dk/issues/issue5_11/moon/](http://www.firstmonday.dk/issues/issue5_11/moon/)
- Palojärvi, J. 1999. Asennuksen helpottaminen lupaa lisää käyttäjiä - Linux-huuma yltyy. *Tekniikka & Talous* 24.6.1999.
- Regan, T.G. 1984. Some limits to the hospital as a negotiated order. *Social Science Medicine* 18: 243-249.
- Shipley, G. 1999. Is it time for Linux? *Network Computing*. May 31.
- Sibley, K. 1999. Linux giveaways drive open source movement. *Computing Canada*, May 28.
- Stallman, R. 2003. The GNU Project. [http://: www.gnu.org/gnu/thegnuproject.html](http://www.gnu.org/gnu/thegnuproject.html)
- Stodola, S. 2003. The Final Frontier of Furniture. [http: // www.methree.net/archives/stodola/ikea.html](http://www.methree.net/archives/stodola/ikea.html)
- Strauss, Anselm L., Leonard Schatzman, Danuta Erlich, Rue Bucher, and Melvin Sabshin. 1963. *The Hospital and Its Negotiated Order*. Pp. 147-69 in *The Hospital in Modern Society*, edited by E. Friedson. New York: Free Press.
- Strauss, Anselm L.. 1982. Interorganizational Negotiation. *Urban Life* 11:350-67.
- Torvalds, Linus. 2001. *Just for Fun: The Story of an Accidental Revolutionary*. New York, NY: HarperCollins Publishers, Inc: .55
- www. tuxedo.org: [http:// www.tuxedo.org/~esr/writings/cathedral-bazaar/cathedral-bazaar-1.html](http://www.tuxedo.org/~esr/writings/cathedral-bazaar/cathedral-bazaar-1.html)