AN EXPLICIT LOOK AT EXPLICITNESS

This issue provides an explicit framework to think about explicitness, and the delicate interplay between explicit systems and human creativity.

The general direction of software technology over the last few years has been higher- and higher-level, from automating physical and tangible processes towards automating business processes and decisions. We are moving from payroll, manufacturing automation and billing, to medical expense validation, e-mail filtering, message-handling and groupware.

To automate business systems, we need to define their operations explicitly, frequently with "user-friendly" systems that make the underlying models and objects intelligible to users. Technology (especially object-oriented programming and expert systems) both allows and requires explicitness, an obsession fed by evolving American culture. As a society, America is attempting quantification and exactness that may be dysfunctional if it is carried too far. The world should serve humans, not machines.

What is explicitness? It is rules and criteria, policies and values, as opposed to heuristics and fuzziness, emotion and custom, human connection and arbitrariness. But explicitness also promotes consistency and fairness, orderliness and reliability. The explicit identification and definition of exceptions allows even bureaucracy to become flexible by treating exceptions routinely. In well-designed systems, explicit systems handle the basics, but they support inexplicit interchange as well.

Explicitness is the giving of names to things that were unspoken before. It reduces anything to a specific value or event: So much of one item can be traded for so much of another; everything is fungible. She either does or doesn't...(and we need to know). Explicitness helps us handle things, but it diminishes their true complexity. This newsletter itself is an example of reductio ad explicitness...

Our purpose in this issue of Release 1.0 is to suggest how the notions of explicitness and identity can guide system design -- not user interface appearance, but the structure of whole systems. What should they do, and what should they leave up to users? How can they encourage user participation and the inexplicit, unpredictable process of creative learning? What is laid bare, and what is politely hidden? We don't hope to resolve these questions -- just to consider them.

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The case for explicitness is strong: By defining something explicitly, you create edges to hold on to. All side-effects are discernible and accounted for. This makes for efficiency: Resources go where they are valued most. People who value their time work less and charge more; others work as much as possible to maximize their income. Factories and companies are bought and operated by people who can maximize their productivity and profitability. The mechanics and ideology of such markets are well-known.

Of course there are exceptions. There are well-known spheres where the market "doesn't work" -- although there are broad arguments about exactly what those areas are: education, prostitution, child labor, environmental protection, employment practices and discrimination, consumer protection, telephone services (and now access to the information highway).

Beyond the market

Explicitness goes beyond the market and valuations; even where the market doesn't work, we look for explicit policies and rules: definitions of situations, relationships, qualifications. Explicitness governs laws and contracts; we are uncomfortable with the British notion of common law and an unwritten constitution. In our obsession with fairness and exactness, we ignore or cover up that which we cannot define -- because "rationality," law or "fairness" will not allow us to consider it. Once you have a defined job requisition, you can't consider other factors, according to some interpretations of the law, because you might be discriminating. Likewise, government contracts must be awarded according to defined criteria, most of which have little to do with quality.

Even in business, the business question is not so much, Are profits all there is? After all, profits are a physical surplus that allows us to choose -- even if we choose more leisure or more love rather than more money. The question is rather, How do we also foster creativity, trust, and inexplicit values in business?

Explicitness: making it clear

First let's look at the case for and some scenarios of explicitness. Then we'll consider the downside of explicitness -- and how it may be possible to explicitly allow for inexplicitness. The inexplicit side is a form of the anthropological idea of "gift exchange" -- sharing without explicit analysis of the value of things shared. The ultimate goal is to integrate explicit transactions and inexplicit exchanges into coherent systems that can support efficient as well as (inexplicitly) unified communities. The idea is not new; it's the motivation behind semi-structured systems such as MIT's Information Lens and Beyond's message-management tools.

What do we mean by explicitness? Definition, identity, boundaries, transactions. Most things in life are vague; you feel vaguely good or bad, you have vague relations with other people; you vaguely want more money than you have. Explicitness is precise and concrete and defines what is and what is not. It frequently imparts superficial vividness but little meaning. We see the explicit world in sharp relief. It quantifies the unquantifiable where necessary as risk premiums or probabilities. People have defined roles and status. Things don't just happen randomly; they are "events," with quotes around them or capital letters. Relationships are defined, over
To define explicitness, we have assembled a set of examples from which you, the reader, will have to derive a general, inexplicit rule. The items on the left are generally discrete, concrete, well-defined; those on the right are or imply more diffuse things and relationships, where the details are undefined and will require handling or adjustment on a case-by-case basis.

**Explicit**

- quality time
- defined risks
- workers & bosses
- labor union contract
- business process
- marriage
- pre-nuptial agreement
- a date
- privatized Russia
- secured by collateral
- the choice of MCI or Sprint
- your new phone bill
- concerto
- read the manual
- Freudian slip
- A+ student
- a la carte
- tip
- 15% gratuity added
- objects and messages
- insurance
- calculator
- housekeeper
- Zoe Baird's housekeeper
- Michael Dell at college

**Inexplicit**

- hanging around with the kids
- fear & anxiety
- middle management/colleagues
- employment-at-will
- business practice
- living together
- marriage
- a meal
- USSR
- AAA general-obligation bonds
- the old phone company
- traditional lawyer's bill
- jazz
- kick it in the right place
- a mistake
- smart
- all you can eat/prix fixe
- service included
- tip at will
- data and code
- self-insurance
- slide rule
- wife
- your mother helps with the kids
- Tom Sawyer at the fence
no-host bar
holiday in the Caribbean
elected president
holding company
money
"this is the one!"
yield management
taxi
cliche
consultant/temp
pension
nursing home
McDonald's with nutrition label
paid companion/gigolo/mistress
Comfort Classtm
The Boulders
date rape
joke number 42
a hurricane
efficiency
management by objectives
$5 in cash
principles
identity
no
financial statement
The butler did it!

potluck
visiting the family
royalty
family company
barter
you will meet a stranger...
full fare
travel pass
insight
lifetime employee
mattress/lifetime savings
living with your grown-up kids
a hamburger
friend
couch
a home
a horrible evening
"A man walked into a bar..."
a high wind in Jamaica
effectiveness
doing our best
a tender offer
examples (q.v.)
nature
"it might be difficult"
chairman's message
two hours of confusion

NOW DO YOUR OWN!
a specified time, with rights and responsibilities on either side. ("He didn't hold up his side of the bargain.")

In part, society's explicitness changes how we think; in part, it reflects the changes in how we are thinking. A pre-nuptial contract may prevent some marriages that wouldn't have worked anyway; it may strengthen other marriages by clarifying the expectations and duties on either side. But it may undermine some other marriages by putting the two parties at odds.

The opposite of explicitness is trust, one might conclude, but in fact they are complementary: Trust can exist around an explicit framework, as long as that framework does not overstep the bounds.

Explicitness and software

Explicit items are reusable, because they are defined; you can use them again because they are no more than what meets the definition. Once a certain set of conditions is satisfied, an expert system or application goes ahead to do A or B, as instructed. Software objects are explicit pieces of code, with defined means for interaction, and defined forms for the instances and data they manipulate. We need precisely such explicitness to define the objects and situations and procedures of daily business life in order to build automated business systems. As people start using PDAs and workflow tools to automate tasks, for example, they will need to be more explicit about the minutiae of their daily lives.

But explicitness itself is slippery: Data should be clear and explicit, but too much data gets in the way of clarity and explicitness. Too much "explicitness" in an income statement may obscure the fact that a firm is losing money. Likewise, general principles are clear and abstract, but sometimes explicitness lies in how they are applied. Finally, as Release 1.0's Jerry Michalski points out, explicitness can strengthen an inexplicit relationship, as in "I love you" -- as long as it is an unsolicited, sincere declaration. But that explicit declaration can be misused, as in "If you really loved me, you would -- " That's when explicitness oversteps its bounds...

Explicitness in software

Just as object-oriented software changes the system builder's task from building to buying and assembling, so does our new model of economic activity change the company-builder's role from training and molding an organization to finding and hiring people and assigning them tasks. But something gets lost in this model. When do the original software components get built? Where do the people learn? And how does the organization learn if all its parts work by transaction rather than interaction?

Moreover, in real life, many software objects are not reusable because they contain inexplicit assumptions that don't carry over to the new use. For example (but of course this is too explicit an example), Juan may use different criteria from Alice in preparing his department's sales forecasts. Their old boss allowed for this difference in constructing his budgets from consolidated spreadsheets, but the new boss is blindsided.
ROSY SCENARIOS (WITH THORNS)

Why is explicitness rising now? Technology has reduced the costs of recording and handling the details that explicitness fosters, and the benefits to efficiency are clear: By making things explicit we can charge for them, assigning proper costs and trade-offs -- as long as the cost of measurement doesn't exceed the value gained through a transaction. (With more powerful computers and increased explicitness, the costs of transactions and matching items to criteria are dropping dramatically.)

Moreover, explicitness fosters fairness and consistency even as the world becomes more a place of strangers, where you can't rely on the good will and conscience of your community. Just since the Depression, the population of the United States has doubled. The amount and variety of goods and the range of behavior covered by law have increased much faster. It becomes harder and harder to handle things individually, by exception. All our computer systems are designed, appropriately, to make exceptions routine -- and explicit.

As noted, explicitness is the key to automation. What can be defined can be routinized. And what can be routinized can be handled efficiently. This underlies a lot of the vision we and others have for the next few years of progress. We outline some rosy scenarios below.

So far, so good. But at what point should this explicitness stop? You can explicitly define a purchase order, and perhaps even criteria for customer satisfaction, but at some point -- whether it's interactions within a firm or interactions with a customer with whom you want to create an illusion of partnership, family or membership -- the explicitness destroys the unity and creates barriers. Where's the flexibility of "we'll handle this when we come to it" -- applying the rules with wisdom and compromise?

Markets: Free agents

Lots of people (ourselves included) are talking about a brave new world enabled by communications and searching techniques where people will be able to hire themselves out for precisely the job and precisely the terms they want. The inefficiency of the labor markets is indeed a tragedy of the 20th century. People know enough to know what they'd like to do -- but they don't have the specific knowledge to find that job. Likewise, employers have to settle for what they can find in a limited pool of people (the good ones don't read the classifieds!). Yes, some people have poor skills and aren't worth much in a market economy, but our assumption is that a more efficient society would ultimately make everyone better off.

The vision is the fluid society. People can define precisely what they offer, others can define precisely what they want, and the market clears. No longer are people stuck in jobs or other relationships for lack of better options. Everyone from the babysitter to the specialty surgeon can find the right work at the right time at the right price. Just as firms were formed to make relationships permanent in a world of high transaction costs, so will they disappear or at least be transformed in a world where search and transaction costs are minimal. (See Release 1.0, 6-91 & 11-91.)

Obviously this is tremendously efficient. People work on tasks which interest them, or at least they freely agree to work on tasks they don't like be-
cause they do like the pay involved. The system includes feedback and visibility, so good people get high ratings and better jobs. (But what about negative ratings? Is there some kind of indemnity?)

The system also pervades more and more of life. People contract not just to do "jobs" but for smaller things -- buying and selling items, babysitting, yard work, perhaps joining together to build a community pool or start a high-school drama club. What's the difference between a market and a government when you can have online voting or non-monetary transactions? Why get a government or tax authority involved when a group of people simply wants to build a neighborhood pool?

In this scenario, people's creative, productive talents can be tapped. Rather than rely on a system that seems to be failing to provide jobs, people will design their own jobs -- and experience the satisfaction of creating and selling something of value. Of course, other people will be selling marketing services to these same producers, while yet others will be selling selection, rating and integration services to the customers. The market itself will be a great source of jobs.

This scenario provides the ultimate in efficiency. It also provides for personal empowerment, generally considered a good thing these days. Of course, there's nothing to forbid longer-term relationships, but only if both parties agree (instead of for lack of alternatives, as in the old days). We expect that in fact there will be a considerable segment of the economy that still prefers long-term work contracts -- for security, convenience and to avoid the real if inexplicit burdens of insecurity, constant change and personal alienation.

Indeed, the problem with this approach is that it assumes that jobs are independent of the people who carry them out. It's a world of task-breakdown structures, procedures and policies, job requisitions and automated resume-scanners. It's very antiseptic.

Virtual organizations

Many firms are decentralizing into smaller units or spinning units off entirely. They are contracting out for services that used to be performed in-house. They are also trying to form alliances with third parties, create partnerships with their customers through revenue-sharing or various marketing schemes where, for example, a vendor might manage a customer's inventory or the customer might place orders directly with the vendor's warehouse.

These systems clearly aid efficiency but they do not create companies or teams -- or communities. They cut costs and increase profits, but they do not lead to the creativity of a learning organization. Creative activity usually occurs when people work together and when information is shared and combined, not when it's traded or bartered discretely. There is learning about, and also learning how to work together. As John Seely Brown of Xerox puts it, "When you share skills around a real, concrete task, there's an [inexplicit] negotiation in practice" that produces a better result unless your only goal is to produce to spec. If you're trying to build something unique, whether a research study, a marketing plan or a work of art, inexplicit collaboration beats following the rules.
Of course, people can overcome defined relationships and supersede the explicitness. That's what happens when salesman and customer become good friends, but if the customer realizes -- or believes -- that the salesman thinks of him primarily as a customer, the friendship will be destroyed -- and the sales opportunities with it.

Virtual offices

Note that virtual offices are not the same as virtual organizations, which aim to create a single organization out of many in various physical locations and manifestations. A virtual office, by contrast, tries to eliminate the physical presence of the office, allowing people to work and interact electronically. It saves space, commuting time and other resources, and gives most employees more control over their own time. And yet...it ignores the human need for inexplicit physical contact. As Peggy Roswell, a virtual-office worker for Chiat/Day, told the New York Times recently, "I've been hesitant to set up an office in my home. I got into the agency business because I wanted to be part of an agency."

Agents savants

General Magic and other vendors will provide tools and templates for agents savants, which will handle many routine tasks for their owners. Third parties will develop and sell "trainable" agents ($14.95 per function or rule?) preprogrammed to handle tricky situations, customized with your personalized -- explicit -- preferences.

They will vastly speed up the rate of routine business: No more phone tag. Meetings can be pulled together quickly and efficiently as the agents savants travel the networks coordinating the calendars of busy executives. Transactions can be completed quickly and automatically. The preferences of a group concerning a meeting site, a product name or even a new hire can be quickly collected, calibrated and resolved into a single, optimal answer. Juan can set his agent to call a roster of press people to set up a media tour, accommodating the schedules of the most important journalists and filling in the holes with the less illustrious. (But how can you increase the productivity of a golf game?)

These intelligent agents will require interesting exercises in explicitness. A secretary can learn from watching your reactions to people and your behavior, but an agent savant will require a little more expliciness. Do you want never to have lunch with Juan, or just not next week? How do you choose whom to see for half an hour, and whom for an hour? Does it depend entirely on the individual involved, on the topic to be discussed, on the press of other business, or what? How do you pick restaurants for specific people and occasions? How do you decide which phone calls to take, and which to hand off to Alice? How do you get out of semi-commitments you wish you hadn't made? After how many requests do you relent and agree to see someone (that's an item best kept confidential!)? What white lies do you tell? Do you want them laid bare in your electronic repertoire of personalized canned responses?

Do you want to rank all your acquaintances by number, assign them to categories, or what? If you don't, your agent may pick up the wrong cues if the right person calls you on the wrong day, or vice versa. (Or do you ex-
plicitly tell your agent you’re having a bad day?) Do you change your mind often? What’s it like to decide explicitly that you don’t trust someone or that they’ve become too familiar? You can’t do it subtly if you have to tell your agent savant... "I would never dare reify the implicit rules that [assistant] Janice Heiler has picked up about how to manage my interactions with the world," says Brown of Xerox.

The cues that people give and pick up are hard to render tangible. Moreover, the very giving and taking of those clues is part of what creates a partnership rather than a transaction.

The agents will reduce the logistical problems of meetings, but they won’t handle the fundamental face-to-face inexplicit interaction of the meeting itself. It’s that (virtual) face-to-face contact, more than the agents, that will fill up the bandwidth of the national information highway.1

Information-sharing

The explicit model of information-sharing is filters for everyone, defined profiles and database structures (see Release 1.0, 8-92). Even soft information can be categorized and organized by the people who generate or first load it into the system. A geographically dispersed organization or a large one can dramatically enhance the value of the information already in the minds of its workers by getting them to share it on-line. Such systems make it easy for new members to join groups and get up to speed quickly.

This explicit sharing of information makes it easy to find, but doesn’t do much for the production of new information or insights, which comes from unpredictable inexplicit combinations into new, explicit frameworks, facts or conclusions.

A further challenge is getting people to put the information on-line (without barraging everyone with copies of irrelevant e-mail), a problem outlined by Wanda Orlikowski of MIT's Center for Coordination Science in a paper about an unidentified consulting company's experience with Lotus Notes. In one location of the firm studied, people were reluctant to share the information, which represented competitive advantage against others in the firm.

Orlikowski stresses that the installation was not a failure, but a demonstration of issues that must be addressed to make sharing effective. One obvious way to foster sharing is compensation for doing so. That works, but how do you define the value of the information entered? Once you impose a measurement scheme, people may start tailoring their information to that kind of measurement, be it number of words, number of items, or whatever.

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1 Agents savants roam the cyberspace network; ubiquitous computing (as envisioned by Mark Weiser and Brown at Xerox) contains the notion of defined place -- and much of the inexplicit knowledge that goes with it. The goal is to embed knowledge of location and other factors within the system (which extends over a wide area), sparing the users the need to identify who they are, where they are and so on. The system itself knows if two people are together in a room, in different time zones, etc.
Moreover, although there was no follow-up to this particular study, it’s clear that Juan isn’t going to help Alice win a promotion to a job he wants for himself. Likewise, if a firm allocates bonuses out of a pool, Juan needs to believe the pool will be larger if he helps Alice, rather than that his own share will diminish if Alice gets a larger piece.

Besides, some people are just "naturally" secretive. Corporate cultures also vary; just installing Notes or grapeVINE isn’t suddenly going to turn a suspicious, competitive organization into a warm, sharing one. In fact, people may well use Notes and its security system for one-to-one trades of malicious gossip, or anonymous publication of dubious rumors.

Explicit personalized marketing

Mass-produced membership programs such as Amex Platinum cards or million-mile clubs are effective as long as the illusion lasts: They know your name and understand your problem when you call. But pretty soon that won’t be special anymore. Yes, customers will still like to deal with firms who know them and can find their records at a glance (at the screen), but that capability will no longer be a marketing advantage or a relationship; it will be a commodity. The relationship becomes explicit and loses its power: One travel agent can call up your itinerary in 20 seconds, the other in 15...
The advantage still goes to Denny, with the familiar voice and the memory of your last trip. Computer systems facilitate, but they do not replace.

Routine workflow

Workflow is both the automation of routine business processes and, in its implementation by Action Technologies in its e-mail tool The Coordinator, a way of rendering explicit the creation and fulfillment of obligations -- or "speech (trans)-actions" (below). If you want to automate a business process, you need to define it first. Who does what? Whom are they accountable to, and for what? When and with what parameters? The essence of workflow design is to divine and express these things explicitly, so that they can be executed by a computer.

In a small organization, people know each other’s styles, and can tell the difference between a request and a suggestion. Juan keeps track of all the papers he receives from Alice, Dave and Olga.

But then a crunch comes. Juan loses track of all his obligations, and slips up with an important report to the chairman. Or Olga calls in sick and no one knows which clients she’s made what promises to. Or Henry joins the firm, but his work habits don’t mesh with the department’s. He has to be told what’s expected, except that no one tells anyone anything in this department. You’re supposed to know.

Thus, explicitness is helpful even in small businesses. It makes it easier to bring in strangers. It makes it easy to hire people for specific jobs, and to guide them if they’re not doing the job. And workflow helps people keep track of their work.

In a larger organization, explicitness is even more appropriate. Much paperwork is more of an ind darial process, and most decisions are routine (they have to be, or the organization would fall to pieces). If you can
define the flow of work and the decisions, much of such work can be replaced completely. Ideally, the computer system can handle not just the flow of work, but the decisions at each point. Why have a clerk look at a form and type in a yes or no when a computer programmed with a couple of rules could do as well? (In another situation, performance support is appropriate, so that a real human being can, say, talk to a customer on the phone; see Release 1.0, 8–93.)

Thus the ultimate implementation of much workflow may be a fully automated system instead of one that shuttles routine work from person to person.

Speech acts and workflow

Yet there is work that requires the involvement of people -- and relationships among people. Action Technologies' Coordinator (now sold by Da Vinci), was an e-mail system with support for explicitly declared kinds of messages. It required people to make explicit declarations of what each message was -- a request, a promise, a counteroffer, etc. The system managed the inventory of obligations each worker assumed, and helped people keep track of what they had promised and what others had promised to them.

However, all this explicitness made many users uncomfortable. We'll always remember the comment of one early user: "We liked it fine at the beginning, when we just used it as e-mail. But we didn't like it so much after the training" -- which taught the theory and use of the explicit message types. Often people prefer to work in a less explicit way; rather than give orders with firm deadlines, Juan puts a form on Alice's desk. Rather than ask for a rewrite, Alice circles a couple of items in a report and hands it to Fred.

Moreover, sometimes people don't know what they are trying to do; the system required them to declare their intentions before starting the message. (Of course, you could argue, people ought to know what they're doing...) Some felt uncomfortable with declaring their intentions so boldly. And of course, the system discouraged "idle" electronic conversation.

This is the fundamental reason, we believe, for the marketplace resistance to the Coordinator and to many groupware/workflow systems thereafter.

A second issue is that workflow exposes the workings of a company or business unit: Who's doing what? Who talks to whom? Who does nothing at all? Organizations might prefer not to know; dysfunctional organizations especially might find the knowledge embarrassing or disturbing.

In the end, we'd argue that teh beat approach is to keep the explicitness in the design tools (such as Action Technologies' new Workflow tools), but to keep the explicitness hidden from most users of the resulting applications.

"Quality," re-engineering and business process automation in general

Ideally, workflow and business process automation in general handle the routine work and leave people free for more creative pursuits. The problems arise when too much explicitness and standardization are forced on processes that should remain inexplicit and that may still be evolving. On its face a benign force for goodness, business process automation can be a way of keeping out people who don't follow a rigid, and in the end limiting, set of
rules and procedures. The moment you specify what is good, you may eliminate what could be better. The trick is to remember that re-engineering is about continuous change, not once-and-for-all change.

As technology makes it possible to quantify and measure compliance in more and more areas of business operations, "authorities" of various kinds are likely to do so. As long as you follow the right procedures, it's okay; if you don't, whatever your results, you may have a lot of explaining to do.

Processes may become rigidified as a result. If it were left totally to the market or to people's inexplicit tinkering, enterprising developers would keep coming up with new and improved ways of doing things. But once there's a way to describe and specify procedures too precisely, regulators may limit business's flexibility.

While it will be easier and easier to buy software to automate these functions, they may become the least common denominator of any business. More creative approaches will be discouraged. (If it's not illegal, it's still confusing to the auditors.) In the long run, auditors may certify the code that implements certain functions -- what kinds of data do you keep about employees? What search techniques do you use to find suitable candidates for new positions? How do you test your cookies for freshness and quality? Will buying functions such as these from a reputable vendor serve evidence of due care -- just as sending a sample for testing to a certified lab is evidence of due care for a doctor?

This all sounds very sanitary: It will be easier to follow the rules, but harder to break them creatively.

And of course, expert systems...

Expert systems probably were the first buzzword to give explicitness a bad name. The problem was that most situations couldn't easily be represented explicitly; users could easily perceive the superficiality of the systems. Those that do work well generally handle high-volume, low-level decisions -- call them clerk systems.

Others are effective primarily for representing explicit knowledge in large and complex systems, where the problem is not so much judgment as the ability to assimilate a large body of detailed information. But they do not do much with subtle, judgmental questions.

Finally, there's a variety of expert system better classified as "advisors": Their primary task is not to make decisions, but to assemble relevant information for an expert user. In other words, they do the routine part of the task, collecting information, but leave the richer, inexplicit judgments up to the user -- an appropriate division of labor. Of course, many useful and widely used expert systems are embedded in applications as rule sets that are never seen.

Most employees would rather be connected than empowered.
All the scenarios above sound great, but they end with a twist. There’s need for something beyond explicitness: creativity, trust, community, invention. In short, explicitness and the automation it supports are helpful for efficiency, coordination and cost control, but they are basically friction-reducers rather than creative, generative forces. They are hygiene supporting health, reproduction potentially leading to evolution. They provide the optimal return on physical and even intellectual resources, but they do not by themselves create new intellectual capital or human motivation.

In fact, there may be a fundamental contradiction not just in systems but in people between explicitness and the need for human connection. Almost all of us grow up in a family unit, where parents sacrifice for the children’s welfare. Yet children yearn to be free: grown-up, self-supporting, independent. "Mother, I can do it myself!" Still, many move on to join an organization that will take some responsibility for developing their potential.² Most people say they want an organization that will care for them, and most organizations want loyal employees... But in our effort to make everything and every relationship explicit and defined, and to hold people accountable, we may destroy those relationships.

No room to hide

To put it by analogy, consider the pre-nuptial agreement. The pre-nuptial agreement fulfills a worthy function: It makes sure that the rights and obligations of each party to a marriage are clear and mutually acknowledged. It reduces the danger of incompatible expectations. In this way, it probably stops the creation of many marriages that would have failed, and provides a firmer foundation for those that proceed. On the other hand, does it undermine the kind of binding marriage which is not an explicit contract between two opposing parties but rather a joining together? In other words, does the very explicitness of the contract and its assumption of two discrete parties, widen the fissures that the partnership could seal?

We assume that the answer is somewhere in the middle -- that marriages, like other partnerships, come in a variety of forms. Some are contracts between two people with independent, complementary goals, and some are genuine unions into a seamless whole. Some have elements of both. And some are contracts generated in distrust and held together only by force of law or hope of gain at another’s expense.

Does explicitness clarify? Or does it destroy trust? In the end, it does both. The trick is to determine (explicitly?) the times and situations where explicitness or inexplicitness is most appropriate.

2 In the American formulation, should they expect an organization to take responsibility for them rather than fend for themselves? It seems to deny them full humanity and full adulthood. Should there be two classes of citizen? Isn’t it paternalistic (and politically incorrect) to assume that there are some people who just need to be taken care of? (Yet public opinion and increasingly the law attempt to define every object and every event, and hold someone responsible for any damage or mistreatment of any person or thing.)

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There's some illuminating thinking on this topic in a book called "The Gift: Imagination and the Erotic Life of Property," by Lewis Hyde. One fundamental principle binding communities (or tribes or social groups) is what anthropologists call "gift exchange," which Hyde outlines eloquently and provocatively. The essence of gift exchange is that it is not so much exchange -- value for value -- as it is transfer. A gift loses its value as a gift and becomes merely a commodity if it is traded. The giving of a gift creates union; the trading of a commodity creates two sides to a transaction. Trade divides people, where gifts unite them. Although there is some notion of return and reciprocity, it is implicit, not explicit. The value of the gift is usually passed along to someone else in the group, not returned to the original giver. Moreover, the value of the gift frequently increases as the gift is passed along, but the return accrues to the gift and the community in which it circulates, not to any particular person. (Although a marriage, or love affair, has many elements of gift exchange, it doesn't create much of a "community" until/unless it broadens into a family.)

In our business culture, for example, a mentor gives a gift of time and wisdom to a younger person; that person, in turn, will later act as a mentor to a yet younger person. The original giver expects nothing back -- but if the person mentored is ungrateful and doesn't pass along the gift, the circle is broken. If the circle is strong, the community benefits more than each individual gives; that's an extra, shared return to the gift; unlike a profit, it belongs to the community and cannot be kept by one person or traded away. (However, it may make outsiders more eager to join the community...)

In such communities, people are expected to give according to their abilities and will receive according to their needs. That's the ideal (not only according to Marx and Engels), but it doesn't work if needs and abilities are decided formally by a government or compensation committee; it is something to be worked out through inexplicit community behavior.

A gift for us, but a deal for them

There's a distinction between gift exchange of items which have no assigned, quantified value and are passed within the social unit, and other transactions, concluded with strangers, where the rules of economics apply -- tit for tat, bargaining, expected return and the like. Implicit is the notion of identity: Some people are within the circle where the gift circulates, and others are outside, people with whom one transacts business. (Prohibitions against usury within a community are another example; in most societies, members are allowed to charge interest to outsiders.)

In the electronic realm, the idea of gift exchange explains why "lurkers" are so unpopular on networks, and are not truly part of the community; they only listen and read, and do not share or contribute. (This is an argument for higher-bandwidth communications, where you can participate by, say, wincing or giggling without having to formulate an explicit statement.)

Likewise, the watcher of a soap opera or a tv talk show is not a member of a community (other than the group of neighbors who gather and discuss what Oprah just said). By contrast, the person in the studio audience, likely to be picked out by Phil Donahue to answer an embarrassing question, or franti-
cally waving his hand to volunteer a comment, *is* a member of the community. Being ready to contribute involves him in a different way; actually contributing draws him in still further.

And finally, as any marketer knows, a customer who complains and receives a satisfactory response frequently becomes a big booster of that vendor. That's especially true if the response is not just a remedy to the individual, but a change in the vendor's product or service, which makes the complainer feel he has contributed to the customer base at large. For example, "Here's a free case of shampoo" is nice; "We've reformulated the shampoo to remove the bubbles as you suggested" is even better.

In designing a conference, electronic or face-to-face, one creates a community by encouraging contributions; this is why the notion of interactivity and feedback -- not just selection of channels -- will be so important in the coming digital world of multi-media, interactive TV and the like. Choosing among 500 channels is not the point; the point is interactively contributing to what is on even one of those channels, whether it's a conversation with your grandmother or a video salon. (In this context, computers are not computing machines or even coordinating machines, but communication channels.)

**Computing for community**

So let's go back to computers and business. The big question for vendors and people who design corporate systems: How can you balance efficiency and explicitness with inexplicitness and trust in a computer system? Second, how can you build systems that foster community, learning and team spirit?

There are two broad business motivations for such communities. You want them within companies to create living, learning organizations rather than markets, which tend to become more efficient but rarely to learn creatively. And you might want to create such communities to sell memberships to consumers. As our society moves to its next, post-industrial stage, we will focus on communities as consumption as well as production vehicles. (Perhaps you don't like this explicit commercialism?)

In our issues of June and July (Release 1.0, 6-93 & 7-93), we discussed online communities. We'd like to reassert the distinction between compelling entertainment media and true communities. The scarce ingredient is contribution and resulting attention (see Release 1.0, 3-92): a person becomes part of a community by contributing to it and getting its attention in return. That limits a single person's active membership in communities to those to which he can contribute personally. (There are ways to do so by proxy, through wives or corporate underlings or form letters, but those are usually correctly perceived to be the proxy memberships that they are.)

How can technology leverage a single person's contribution and membership? A strong leader can bind an organization together, but only interaction can make it *learn as an organization*. The leader must listen as well as teach, and the employees must participate -- providing feedback to the leader and to each other.

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*People who only sit and watch feel alienated.*

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*Release 1.0* 31 October 1993
DESIGN FOR COMMUNITY

To be explicit, what are some factors affecting the formation of a creative, collaborative gift-exchange community in the business world? Creating such communities, of course, is a fruitful business proposition. You may want one in your company, or with your strategic partners, or you may want to build one in order to sell memberships to outsiders.

One thing is clear: The basic unit within which people operate should not be a market. In a market, people tend to offer only what is explicitly asked for -- that is, nothing new. Rather, the basic business unit should be a community in which people share information and tasks, while selling the results to the outside world. That outside world may well be other units of the same company. Or it might be two parent companies, to which the unit, a joint venture, belongs. Or it could be just the normal outside world -- that is, customers.

The question of identity

Indeed, part of the issue is the fundamental unit whereby people operate. Our laws and our culture exalt the individual: individual rights, individual responsibility, individual fulfillment. Subordination of one's own interests to those of another is considered a polite form of slavery (cf. Hillary Clinton's well-known if perhaps misinterpreted writings). But it's the sharing and the gift-exchange that brings internal growth to the community. Just what is the community?  

There may be no universal answer; different companies may well attract different styles of people. Moreover, people may be members of several overlapping or even concentric communities: for example, the account team, the agency, and the three vendors that jointly service an account with broadcast, print and direct advertising services. Obviously, in the business world, the group should share some task, some financial responsibility and some tasks; they must have some common goals around which their gift-exchange of tasks, information or other value revolves. (However, a gift could be information about children's schools, the morning supply of Danish as well as a task-oriented contribution.)

The unit is more likely to grow around some shared challenge than around management's decree that it wants teamwork. Indeed, some managements can provide the challenge themselves, forcing groups of subordinates to band together in the face of an unreasonable boss or dysfunctional corporate culture. (That may be a good community, but it may not share the goals of the company, nor may it contribute much beyond contracted labor to the welfare of the company.)

3 In the political realm, Xerox's Brown proposed congressional districts determined by shared interests rather than geography; that is, those who care about schools could band together to elect a congressperson (ceding their geographic-district vote to do so). Interestingly, this would require the groups and their individual members to make their interests explicit.
Size

Another factor is sheer size. Small groups of people may share and cooperate, but larger groups tend to fall apart. One or two bad lots spoil the group. People get away with things through the anonymity. People start working for private advantage, and pretty soon the cohesion of the group disintegrates. What size are we talking about here? There are lots of factors involved, but the group needs to be small enough for most members to know each other.

Electronic communication can extend the size of the group somewhat; it also allows for more contributions of information than can be handled in face-to-face meetings (see Release 1.0, 3-93).

Tools for sharing knowledge

Most of what people can give each other over an electronic network is either tasks/transactions, or knowledge/information. Information-sharing tools are thus key in the creation of a computer-based, gift-exchange community in business. Aside from allowing people to communicate, as electronic mail does, information-sharing tools can improve the experience by representing the information in useful, expressive ways. Discussion tools such as Lotus Notes provide the organizational memory without the explicitness. After reading megabytes and megabytes of past discussions, a newcomer can get a feel for an organization.

The second part, becoming a true member by contributing, is still difficult. (For example, Notes still lacks robust editing features to foster collaboration on joint documents.) Aside from the individual's problem of having something to contribute, well-designed tools can help to some extent. The version manager in Lotus 1-2-3, for example, allows people to share hypotheses and scenarios in discrete, transferable form that other people can use in their spreadsheets (see Release 1.0, 11-91); so will Borland's ObEx.

Applications in general should encourage feedback both by prompting it and by making it easy: Performance support systems, for example, could collect a user's comments in context; the user not describe the problem he's addressing because the system knows. Ideally, the user could simply annotate a screen and send it to a supervisor or co-worker.

Learning

Individual learning is only a small part of the task of organizations. Group learning is far more important, leverageable and productive -- since it is organizations, after all, that produce much of our material, intellectual and social wealth. (And for practical purposes, only learning that is shared has an impact in the world.)

Learning in organizations requires the give-and-take of gift exchange rather than the market transactions. For example, in the scientific community (at least as described by scientists for outside consumption), scientists publish their best work for free, in journals refereed by their peers. Although there's intense competition for credit, the better scholars gladly share their ideas in hope of feedback -- not one A idea for another, but a sort of adding to the pot of knowledge in the hopes that it will increase.
Creating communities

Take, for example, the case of Price Waterhouse and its use of Lotus Notes. According to CIO Sheldon Laube, the firm had a collegial culture to begin with, and Notes enhanced the sharability of information. Not every site worked equally well: Although the technology allowed members of one group to share information, they didn't want to, since many considered the information a valuable asset for getting ahead within the firm: Why give away the source of their power? The obvious solution was to cater to this attitude by creating a market, compensating the partners for the amount of information they put into the system.

Yes, acknowledges Laube, "You could motivate people directly by paying them money. But making a big deal out of it is the wrong way to do it. It's better to do it by setting examples. Your boss does it; you do it. Or your boss may say, 'Why don't you do it?'

"To us, Notes is organic, open to everyone," he continues. "Our culture supports it. When the chairman is up on Notes, it must be a cool thing to do. For this sort of stuff, which is soft, it's harder if you don't have top-management support. Without it, other people have to do niche applications which have specific payoffs -- but are less productive overall."

It turns out, says Laube, that the senior people were more willing to share information than the junior ones. Was that because they felt secure and part of the community through long years of membership, or did the community select that kind of people? Probably a little of both. In general, he says, the culture of the firm encourages that kind of sharing. (Perhaps that's why the firm has continued to grow and prosper.)

"One issue is being able to get information into hands of clients. It's extremely high value -- ten days to take action is a lifetime; Notes lets us do it in one or two. It's very highly rewarded within the informal structure. We get a lot of points for those things."

But more interesting is how the quality, not just the accessibility, of the information grows from the exchange. "We deal with knowledge and information better than before; people can touch other people's knowledge... You see that in classic BBS discussions where people build on each other's ideas. It runs the entire spectrum: Some people do nothing but send e-mail; others spend too much time browsing," he notes. "There's a connection between these people because of the Notes net; there's team spirit. When your problem is solved by some guy in New Zealand and then you meet that person, there's a real excitement in that. People have become friends across the world."

This illustrates our point that it's not just taking information but contributing it that creates the community: According to Laube, "the PW Notes network allows people a sense of being the expert. That's the greatest accolade. It enables people at all levels to become public and stand out positively (or negatively....) You can be seen as the idiot or the savior. It's tremendously motivating. It opens it up to everyone to become a hero. All of a sudden people around the world have become experts."

Moreover, PW does keep the distinction between itself and the outside world of paying clients. They don't really share in the creative process, and
they receive only a carefully edited subset of the information, carefully cleansed of confidential or competitive information. While the information inside PW grows and enriches itself organically as people contribute to it, the information sent outside is a commodity -- a product rather than a gift -- or an experience.

Reader's gift exchange: Release 2.0

Let's dream a little about how we could redesign Release 1.0 as an electronic newsletter. One advantage of electronic delivery is timeliness, but that's hardly an issue with Release 1.0, which doesn't cover breaking news. Paper mail is no barrier to our goals.

The significant enhancement which electronic delivery would make possible is the creation of a participative community around the newsletter, somewhat along the lines of the community Patty Seybold has created among users with NoIT (Notes on Information Technology). This community, which is mostly large corporate users, share their experiences and questions in a forum mediated by the staff of Patricia Seybold Group, who also contribute their formal research papers and studies. The users trade their experiences and insights, and a valuable time is had by all.

In the same way, Release 2.0 could be written partly by its members, with agenda-setting and editing contributed by us (Esther and Jerry). The process has already begun, but not visibly. Indeed, each issue of Release 1.0 is already the result of a fair amount of gift-exchange of ideas, but only between us and certain individuals, rather than among the group of readers as a whole (who are mostly part of the broad pc-industry community). Most issues are distributed in draft form early on to a number of contributor/subscriber/readers, generally those named in the resource list (page 20 of this issue). Usually these people have created or sell the products discussed in the issue; sometimes they're simply people we think would be interested and have something to contribute.

With an electronic edition, this process would happen automatically; people would be able to contribute without explicit initiation. Nonetheless, we would keep a continuing role for ourselves as discussion leaders and editors -- guiding the discussion, editing the contributions, and synthesizing them into something readable and coherent. But the discussion would continue after the publication of the paper issue: We would no longer face the frustration of abandoning a topic to write the next issue just when the discussion gets interesting!

Would it work? Such a group would have to be small enough (our circulation is 1300) to keep the volume manageable and articulate enough that the comments would be of interest to other members. This would be a group members would want to contribute to.

In a sense, the group would be an electronic community midway between the PC Forum -- realtime, face-to-face and short-term -- and the newsletter -- continuous (if sporadic), asynchronous and semi-formal.

Let us know what you think...contribute your thoughts!

Release 1.0

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RESOURCES & PHONE NUMBERS

John Clippinger, Coopers & Lybrand, (617) 478-1631; fax, (617) 951-0822
Ian Browde, David Boulton, Diacom, (408) 438-2303; (408) 688-0820
Susan Stucky, Institute for Research on Learning, (415) 496-7920; fax, (415) 496-7957
Tom Malone, MIT/Center for Coordination Science, (617) 253-6843
Wanda Orlikowski, MIT/Center for Coordination Science, (617) 253-0443; fax, (617) 258-7579
Sheldon Laube, Price Waterhouse, (415) 688-6678; fax, (415) 321-5543
John Seely Brown, Xerox, (415) 812-4741; fax, (415) 812-4037

For further reading:

Lewis Hyde. The Gift: Imagination and the Erotic Life of Property. New York: Vintage Books, 1979. This book is a gift in itself -- a value well beyond what we paid for it. It is half anthropology, half a discussion of the creative energy of Walt Whitman and Ezra Pound. Much of it is delightfully on-target "right" -- it makes you say, "of course!" -- and also profoundly moving. It makes you want to call your mother, embrace your spouse, share a secret with a co-worker, surprise a stranger by sneaking an extra token into the turnstile, paying the toll for the next car in line or upgrading a fellow passenger to first class (depending on how you travel).

John Seely Brown, Paul Duguid and Susan Haviland. "Towards informed participation: Six scenarios in search of democracy," still in draft at Xerox, 1993. The ostensible topic is electronic democracy, but the underlying theme is community and group decision-making. This lucid, provocative paper is the result of some ideas exchanged and gift-enhanced at the Aspen Institute last summer.

David Bollier, rapporteur. "New paradigms for a new democracy: A report on the second annual roundtable on information and technology." Aspen, CO: Aspen Institute, 1993. The source of the (revised version of) the paper above, and a lot of other creative, collaborative thinking as people contributed ideas and enhanced those of others.

Charles Hampden-Turner and Alfons Trompenaars. The Seven Cultures of Capitalism. New York: Currency/Doubleday, 1993. In this long, detailed book, the authors outline different approaches to capitalism, with a focus on the US, German and Japanese approaches -- and special scorn for the British market-oriented skill of extracting profits and operating by the numbers. Americans operate by the parts but are not quite as obsessed with financials as the British, he argues.

While one might accuse the book of being a study of stereotypes, there are reasons for the existence of those stereotypes, and H-T does as good a job as anyone of figuring them out.

One major argument is that Japanese capitalism takes a different view of time, and that it views companies as organisms. Germans see companies as machine systems, or complex structures of interconnected parts, whereas Americans tend to see them as machines of independent components -- each of them capable of being replaced.
lyze the parts, Germans analyze the interactions, and Japanese analyze the whole. Put another way, Americans internalize the market and see themselves as part of it, whereas the Japanese use it as just another tool.

COMING SOON

- The local loop.
- Research on learning.
- Pen stuff (beyond handwriting).
- Constraint-based reasoning.
- And much more... (If you know of any good examples of the categories listed above, please let us know.)


November 7-10  GeoCon/93 - Cambridge. Sponsored by Soft.Letter. For foreign software vendors hoping to find a US market. Call Tom Stitt, (617) 924-3944; fax, (617) 924-7288.

November 14-18  Hypertext '93 - Seattle. Sponsor: ACM. Link up with other linkers. Call Steve Poltrock, (206) 865-3270. (Pity they scheduled it during Comdex!)


November 15-19  *Comdex - Las Vegas. The one and only! Contact: Peter Young at Interface Group, (617) 449-6600; fax, (617) 449-6953.


December 5-9  Lotusphere '93 - Orlando. Sponsor: Lotus Development. Call Diane Horak, (617) 862-4515.

December 6-8  Wireless Datacomm '93 - Washington, DC. Sponsor: Business Communications Review. Call Linda Hanson, (914) 779-8711.

December 6-9  SGML '93 - Boston. Sponsor: Graphic Communications Ass'n. Call Marion Elledge, (703) 519-8160; fax, (703) 548-2867.


1994


February 15-17  Networks Expo (formerly NetWorld) - Boston. Sponsored by Bruno Blenheim. Call Annie Scully, (201) 346-1400 or (800) 829-3976; fax, (201) 346-1532.


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<th>Date</th>
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<td>March 20-23</td>
<td>**EDventure Holdings PC Forum - Phoenix. Sponsored by us: You read the newsletter; now come and contribute! Call Daphne Kis, (212) 924-8800; fax, (212) 924-0240; MCI 511-3763.</td>
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<td>March 22-25</td>
<td>Seybold Seminars '94 - Boston. Sponsor: Seybold Seminars. Call Beth Sadler or Kevin Howard, (310) 457-5850 or (800) 433-5200; fax, (310) 457-8599.</td>
<td>Boston</td>
<td>Beth Sadler or Kevin Howard, (310) 457-5850 or (800) 433-5200; fax, (310) 457-8599.</td>
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<td>May 4-6</td>
<td>*Digital World - Los Angeles. Sponsor: Seybold Seminars. Call Beth Sadler or Kevin Howard, (310) 457-5850 or (800) 433-5200; fax, (310) 457-8599.</td>
<td>Los Angeles</td>
<td>Beth Sadler or Kevin Howard, (310) 457-5850 or (800) 433-5200; fax, (310) 457-8599.</td>
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Please let us know about events we should include. -- Denise DuBois

*Events Esther plans to attend; @events Jerry plans to attend.

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Daphne Kis
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