Business Strategies

introduction / background

motivation

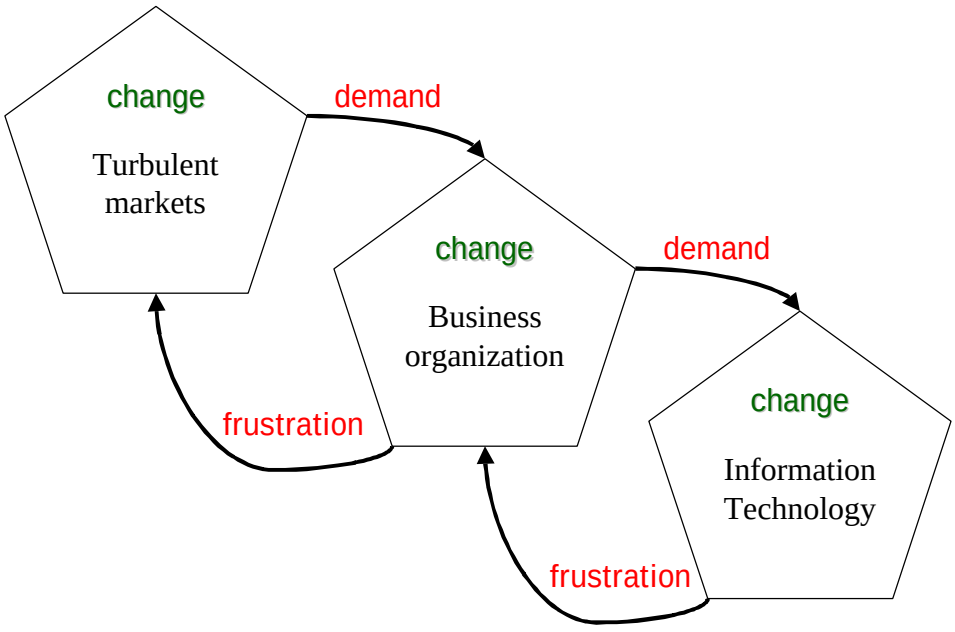
Perhaps like you, I have watched the rise of the new breed of Internet entrepreneur with a combination of envy and amazement. It is evidently possible to make large amounts of money at an astonishing speed, by following business practices that appear downright perverse. (It is of course also possible to lose money - for every Netscape or E-Bay, there must be goodness knows how many failures.) Among other things, it seems you can become extremely rich by giving everything away. (I have always been attracted to paradoxes, but this one in particular gives me very warm feelings.)

In today's perverse economy, there are many new and counter-intuitive strategies for business survival and success. A good collection (presented in an informal and highly readable way) can be found in Kevin Kelly's latest book: New Rules for the New Economy.

I see several implications of this situation for those of us who are concerned to maintain an alignment between business and IT. In this document, I intend to focus on the business strategies themselves, and their implications for software components.

demand, change and frustration

Entities (customers, markets, managers) make demands, and they constantly change their demands. The changes generate further demands. This is a recursive cycle, which we name "Demanding Change".

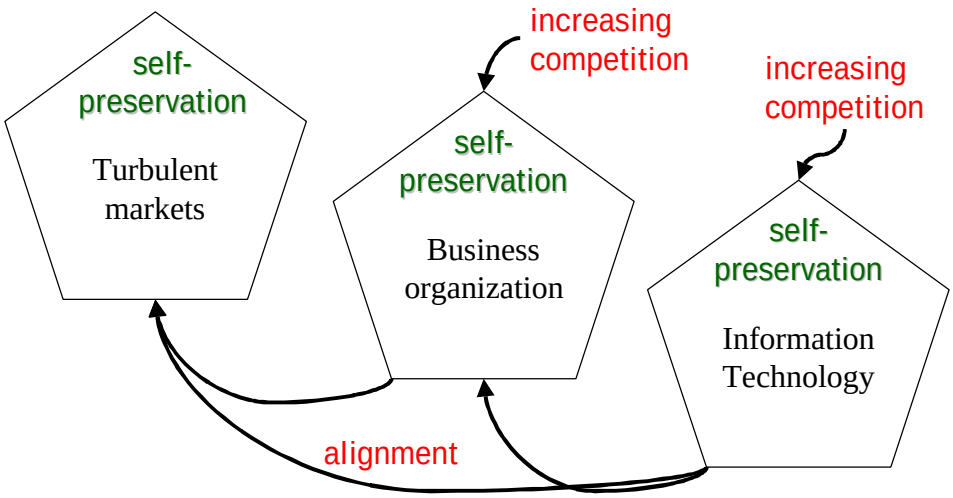


When our demands are not satisfied, we experience **frustration**. What is your experience of dealing with e-commerce websites, customer call centres, impersonal and inauthentic sales routines, and other features of today's business environment? Frustration is commonplace.

identity and survival

Change isn't a new phenomenon. The ancient Greeks were aware of the paradoxes of change; and the words of Heraclitus are much quoted, although usually misunderstood.[1] Heraclitus wasn't just interested in the fact that there's a lot of change about, but in how we (and rivers) can continue to exist despite change. This remains a crucial question.

Prompted by Heraclitus, we can ask: how can markets survive through change? Partly by forcing greater competition between business organizations. And how can business organizations survive through change? Partly by taking advantage of the increasing competition between software solutions.



Competition is about the **survival of the fittest** – or perhaps the **survival of the fit**.

[1] Heraclitus is often quoted as saying "everything is flux" or "the only constant is change". This oversimplification of Heraclitus can be blamed on Plato, who portrayed him as a proponent of a doctrine of universal flux. It would be more accurate to describe him as a proponent of the doctrine of underlying unity in an apparently changing world.

analysis

a thought experiment ...

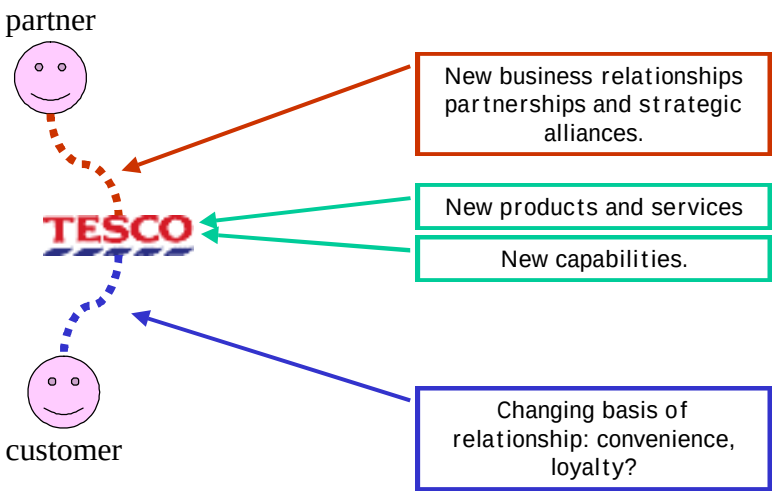
What if ...	Suppose amazon.com or freeserve.co.uk wanted to start a banking service? Suppose Microsoft or AOL or Tesco or Virgin wanted to dominate **your** market?
What would they need?	• Business relationships • Business processes • Packaged business expertise • Available software components
And what would your organization need to respond effectively?	***Strategic thinkers should be ahead of the game.***

Strategy isn't about having Soviet-style five year plans. It is about playing a constant game of position and relationship, often demanding extremely fast reaction to a challenge from the environment.

Do you have a systematic, repeatable process that allows you to do this?

rethink the identity of your organization

The identity of a modern (or post-modern) company is increasingly complicated. A number of organizations have identified me as a "loyal" customer of theirs, including several airlines and retail chains. I have several plastic cards as tokens of my loyalty, what could be more authentic than that? By accepting the card and its benefits, I have given them the right to identify me in this way. But how do I identify them?



An excellent example of this is ambiguity of identity is Tesco. As a Tesco Clubcard holder, I could reasonably ask: who exactly is the Tesco that I am supposedly being loyal to? Is it a grocer, an ISP, a bank, a travel agent? Is it a network of alliances and supply chains, under a common brand name? Part of the dynamism of an entity like Tesco is that it is constantly redefining its identity.

thinking through opportunities and threats

Component Thinking	Systems Thinking
• Determine granularity of competition. • Determine granularity of change. • Identify the crucial patterns. • Plan cost and time to change. • Implement best practice.	• Ability to analyse a situation from multiple perspectives. • Understand what emerges when you put the components together. • Understand the processes of problem-solving and change. • Ability to make intelligent judgements in the face of inadequate knowledge.

We need new ways of analysing business strategies and opportunities in general. Traditional process flow models may be useful when improving the efficiency or reach of a known process, but fail to support the new strategies. This has implications for the techniques and notations for analysing and specifying the requirements for IT systems.

Some of the emerging methods for designing component-based software systems can also be used for designing the new enterprise, as a network of distributed collaborating "components" of business activity.

key to survival: respect the ecological principles

Ecological hypothesis	
In general, components and companies that follow these principles will dominate over those that don't.	• Connectivity • Availability • Quality • Flexibility • Biodiversity • Economics of scale • Pleasure

new rules for the new economy

One of the best sources for ecological thinking about business and systems is Kevin Kelly. In his latest book, New Rules for the New Economy, he outlines ten counter-intuitive strategies for success in today's business world.

• Embrace the swarm	• Increasing returns
• Plenitude, not scarcity	• Follow the free
• Feed the web first	• Let go at the top
• From places to spaces	• No harmony, all flux
• Relationship tech	• Opportunities before efficiencies

We shall look at a few of his examples in detail, and discuss the implications for software components as well as for business.

"embrace the swarm"

example: Cement Delivery

Before	After
Cement delivery controlled centrally Rigid delivery schedules fixed in advance Traffic delays, poor roads, unreliable third parties On-time delivery rate <35%	Cement delivery left to drivers Drivers given full information and authority On-time delivery rate =98%

Subtraction strategy: take away control.

plenitude, not scarcity

Before	After
One car / TV per household One phone line per household. One bank account per person. One computer / email per household.	Multiple phone lines. Multiple bank accounts. Multiple internet identities.

Multiplication strategy: proliferate your customers.

- From one sale per company to one sale per employee.
- From one sale per household to one sale per person.
- From one sale per person to one sale per person-role.

This creates many challenges for traditional customer databases.

"follow the free"

Fairchild Semiconductor

Initial	Two years later
Transistor unit cost $100 Vacuum tube cost $1.05 Transistor priced at $1.05 - huge operating loss.	90% market share Manufacturing costs drop with experience. Transistor 50¢ unit price - now profitable.

Division Strategy: Give away your assets.

- Distribute your product free.
- Reduce your prices by an order of magnitude.
- Release intellectual property into the public domain.
- Turn off the meter - charge for joining.

"feed the web first"

example: dynamic pricing

Before	After
Lettuce price fixed. Price only changed by human intervention.	Lettuce price changes as lettuce ages. Lettuce price changes to respond to price changes elsewhere. Lettuce price changes to respond to sales / demand

Addition strategy: make connections.

relationship tech

Examples	Component Implications
• Florist remembers your mother's birthday. • Firefly knows your top ten favourite music albums. Amazon. • Compaq allows customer to browse database of reported bugs.	• Component instance for each customer. • Customer "teaches" component. • Component co-located with customer.

business strategy

some deceptively simple strategies

strategy	business	component
addition	• Develop new channels • Make connections	• Design for connection • Maximize opportunities for others
subtraction	• Take away complexity • Remove delay • Remove controls	• Promote autonomy - local authority.
multiplication	• Proliferate customers • Critical mass	• Propagate tiny components. • Build critical mass.
division	• Slash price • Fragment process	• Distribute intelligence. Distribute knowledge.

Some of the business strategies apply directly to the design and use of software components. In a world where the software user has an exponentially increasing choice of available components, the software components that will survive will be those that best fit the economic and ecological demands of these new business strategies. This means that, at least to some extent, the business strategies translate into component design strategies. Or patterns.

key messages – business

business	software
• Increasing granularity of competition. • Business must align to the new market forces. • Business survival depends on your strategies for alignment. • Strategy means rethinking the identity of your organization.	• Distribute functionality • Increasing granularity • Connect and transmit in real time • Map onto business patterns.

The strategies that have already been defined create opportunities for all organizations to enhance their prospects for survival and success. Some of these strategies may be formally documented as business patterns, and this in turn creates an opportunity for software vendors to build and sell software components designed to help implement these business patterns. There are almost certainly lots more such strategies waiting to be discovered.

afterword

acknowledgements

A version of this material was presented to the CBDi Forum on October 14th, 1999. Thanks to all those who offered questions and comments.

references

For further discussion, please visit the Veryard Projects website: http://www.veryard.com

Kevin Kelly, New Rules for the New Economy. London, Fourth Estate, 1998.

Heraclitus. Fragments: A Text and Translation with a Commentary by T.M. Robinson. University of Toronto Press, 1987