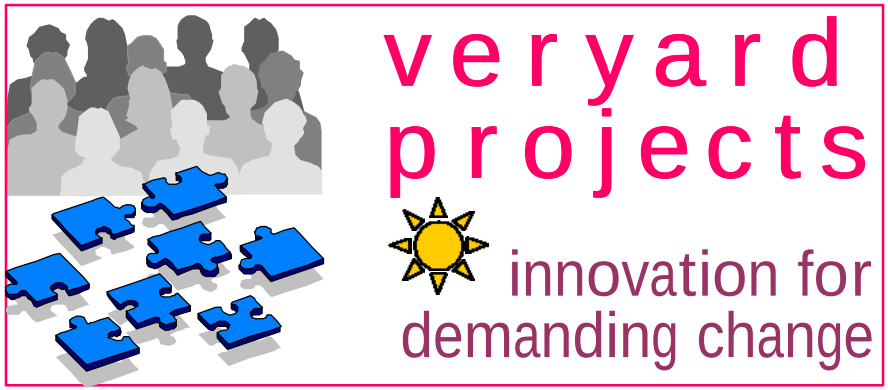
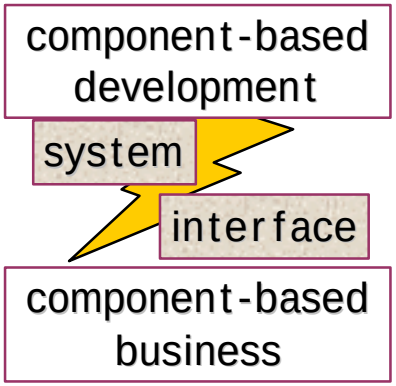




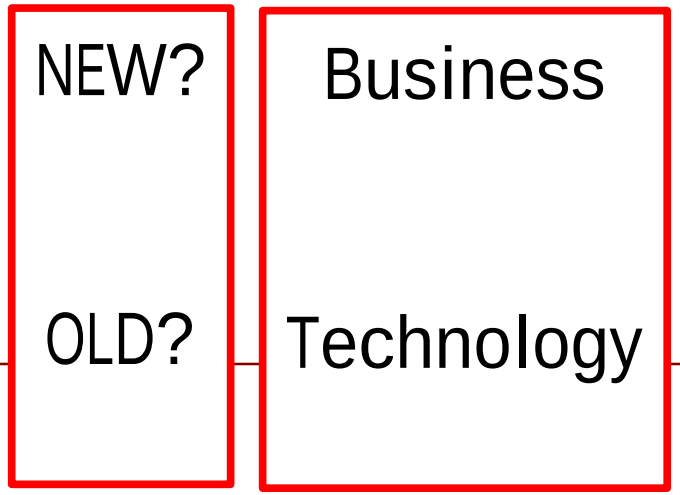
Component-Based Business

Richard Veryard

http://www.veryard.com

The Growth of Componentry

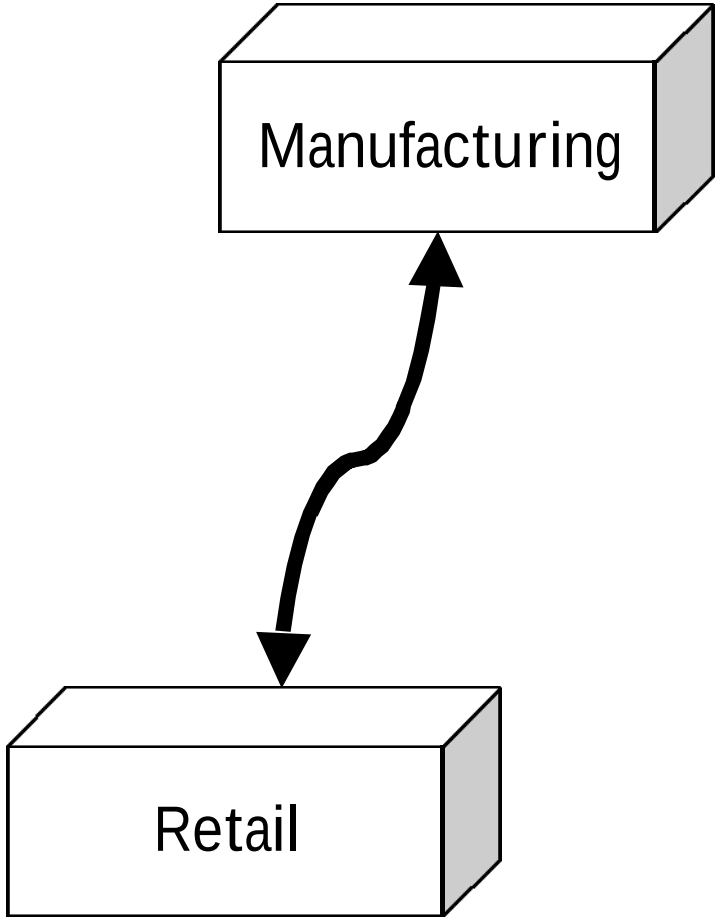
- Faster time-to-market
- e-Business
- Competitive pressure
- The “plug-and-play” business.



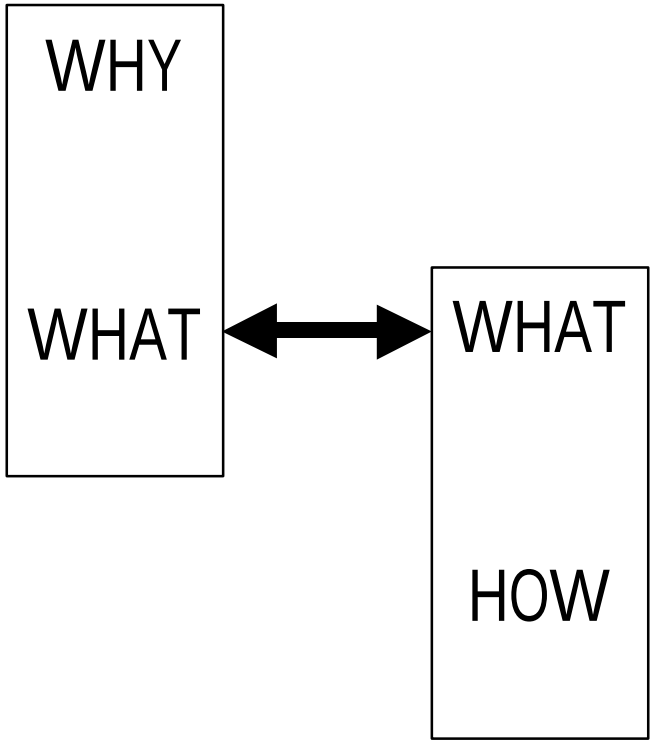
- Mass Customization
- Joint Ventures
  - Grocer & Bank
- Virtual Diversification
- Cross-Competition
  - Banking versus Insurance
  - Electricity versus Gas
- Mergers & Acquisitions
- Divestments

Business relationships follow standard patterns or frameworks

- Example: Manufacturing & Retail
- Increasingly found in finance sector
- Who is providing service to whom?
  - client/server
  - peer2peer
- Can be analysed using CBD-OO methods
  - e.g. Catalysis



Service-Based Business Relationships



- Service level agreement / interface specifies WHAT
- Client knows WHY but not HOW
- Server knows HOW but not WHY
- How successful are these relationships?
  - Global optimization
  - Coping with the unexpected?
  - Adapting to the unknown?

Reasoning about Wholes and Parts

- Complexity demands parallel consideration of wholes and parts.
  - Whole is too complex, so we sometimes have to think about parts as if they were independent of the whole.
  - Parts don't make sense without appreciating larger context.

- We understand systems by dividing them into components.
- System properties often cannot be located in components.
- Change programmes are divided into increments
  - These can also be regarded as components.

How does Componentry alter System Properties?

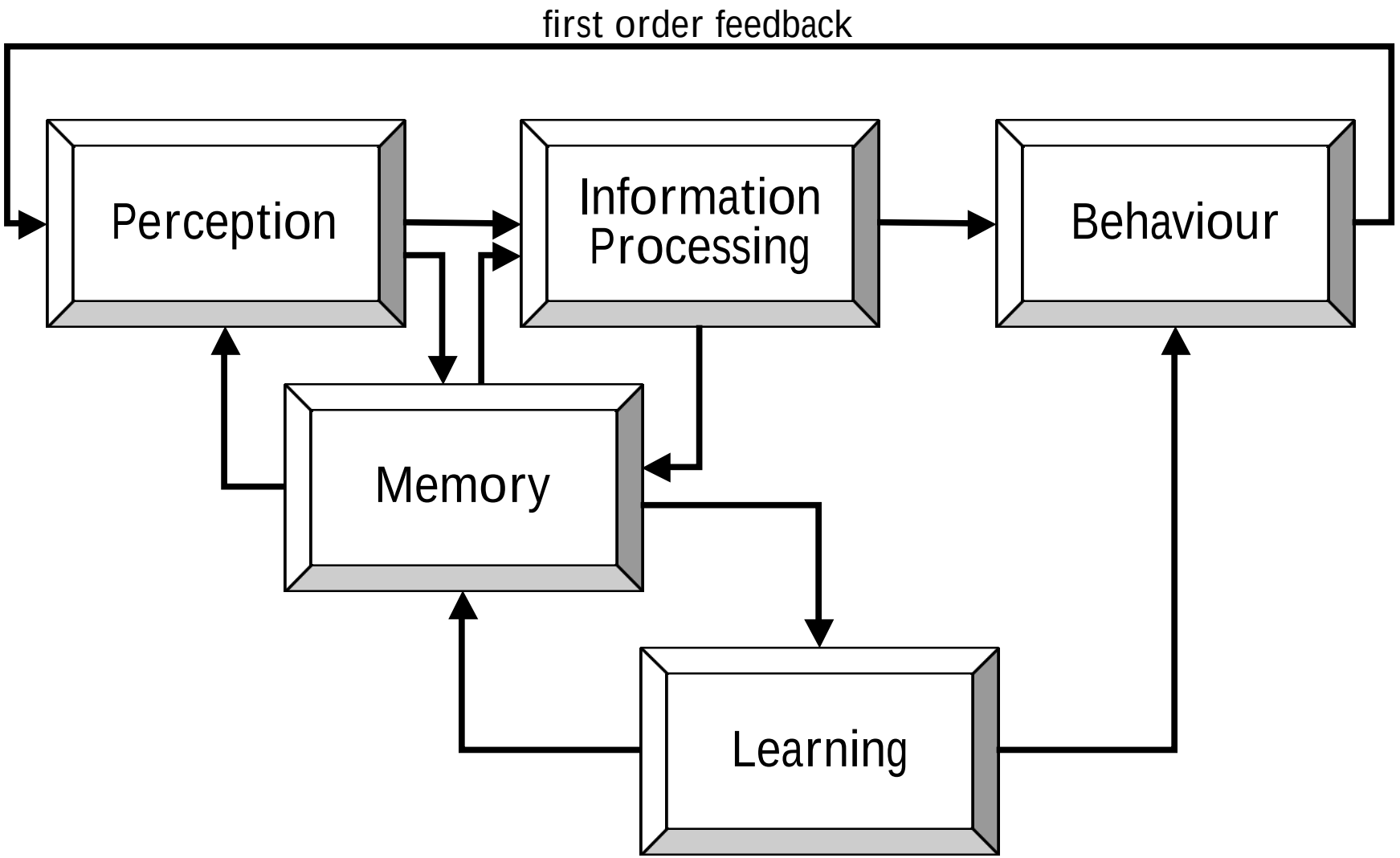
Intelligence

- **Perception** The ability to make complex observations of the environment.
- **Information Processing** The ability to manipulate and transform information. Reasoning.
- **Memory** The ability to store and recall information.
- **Learning** The ability to develop new knowledge and skills, and to learn from experience.
- **Behaviour** The ability to adjust behaviour to suit the situation.

Character

- **Standing out** Making an impression. Having a strong image.
- **Clarity** Decisiveness. Making up one's mind – and sticking to it.
- **Engagement** Committed engagement with situations. Authenticity. Being there.
- **Correctness** Sincerity. Legal, decent, honest and truthful.
- **Integrity** Wholeness. Steadfastness.

The Components of Intelligence



Critical Success Factors for Components - An Ecological View

- **Pleasure** (Delight, Engagement, Fun)
- **Connectivity** (Critical Mass)
- **Availability** (Commodity, Functionality)
- **Conservation of Energy** (Economies of Scale, Reuse, Efficiency)
- **Consistency** (Firmness, Reliability, Usability)
- **Flexibility** (Maintainability, Portability)
- **Biodiversity**

Premises

- Systems and components are socially constructed
- Typical scope of control is component or subsystem, rather than whole system.
- Systems manifest resistance to change. This is an emergent property of an accumulation of past design decisions, often characterized as Legacy.
  - Business processes and relationships
  - Organization structure and culture
  - Operational capabilities and resources
  - Technical artefacts and architectures

Questions

- What kind of judgements can we make about components?
- How does increasing componentry alter the kinds of judgements we can make about systems?
- How does order emerge out of chaos? How do structures evolve? And what have components got to do with it?
- What is the role of feedback in stability and change?
- What paradigm for business relationships: client/server or peer2peer? Any technical implications?

Pitfalls

- Business componentry unrelated to technological componentry.
- Technological constraints interfere with business decisions.
- Emphasis on flexibility and speed can negatively affect character.
- Misuse of feedback - can result in alignment focused on the past rather than the future

References

- Christopher Alexander
  - The Nature of Order
- Gregory Bateson
  - Steps to an Ecology of Mind
- Bruno Latour
  - Science in Action
  - Aramis
- Richard Veryard
  - Component-Based Business
    - coming soon - see draft chapters on my website