Business Rules Solutions   Ronald Ross

The New Knowledge Paradigm: Enabling Operational Excellence

Maybe organizational siloes were inevitable in decades past when operational excellence depended entirely on people. People had to channel operational business knowledge through to products and customers. Even with automated systems there was no other option – people always had to be in the loop.

But the technological world has changed fundamentally – more fundamentally than even 'digital'. Nowadays machines can do the work of channeling operational business knowledge through to products and customers. And machines don't get tired or bored, have emotions, or decide on their own to leave the company.

For true operational business excellence we need to think afresh. Your company needs to follow well-defined rules. You need to always know exactly what those rules are. And the rules need to be evergreen, a living-and-breathing business resource. I call it business knowledge engineering.

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My inner geek gets as excited as the next professional about all the technological innovations adding up to what gurus are calling the *digital platform* or *digital business* – or simply *digital*. This new wave of technological capability features social, mobile, cloud, big data, and more. It promises a host of new capabilities to accelerate innovation including robotics, 3D printing, internet of things, cognitive, and augmented reality. *WOW!!*

But there's a little voice inside me counseling caution. When have new platforms or channels ever fixed major business challenges?!

It's all too easy to get caught up in *ChannelMania*, a state of virtual panic about introducing the next big thing, keeping up with the Joneses technologically. In the frenzy you can easily lose sight of the hidden business costs.

We should step back, take a deep breath, and ask ourselves some fundamental questions.

- How well can we really manage yet more channels?
- Do we deliver consistent business results to our customers?

- Are we happy with our current lot in managing change?
- Does the company have any real strategy to address ever-accelerating complexity?
- With all the new agile methods, is the *business* actually becoming more agile?

It's not too hard to envision what real operational excellence would look like.
- Your customers would get consistent business results through any of many channels.

- Rolling out business change would be faster and cheaper.
- You could demonstrate compliance at every turn.
- You could manage complexity at scale.
- You'd provide stellar customer experience at inhuman speeds.

The question, of course, is how do we get there? I argue that we need a new knowledge paradigm. I call it *Business Knowledge Engineering*.

The New Knowledge Paradigm

The organizational tendency to create new channels for emerging business opportunities is actually not a new phenomenon.

Take a hard look at your organization. It probably has multiple products/services, each supported by an organizational silo. More often than not, each silo has its own legacy systems and billing capabilities not at all well-integrated.

Does a silo-ed approach yield consistent, integrated business results for customers? *No.* Does it provide a *single view* of your customers? *No.* Chances are new digital capabilities will be deployed along existing organizational fault lines, simply compounding current challenges.

Maybe organizational ChannelMania (read *siloes*) was inevitable in decades past when operational excellence depended entirely on people. *People* had to channel operational business knowledge through to products and customers. Even with automated systems there was no other option – they just implemented rote procedures. People still always had to be in the loop.

But the technological world has changed *fundamentally* – more fundamentally than even 'digital'. Nowadays machines can do the work of channeling operational business knowledge through to products and customers. And machines don't get tired or bored, have emotions, or decide on their own to leave the company. Many organizations remain firmly stuck in the old channel or silo paradigm. How do we get them *un*-stuck? How do we *really* achieve operational business excellence in a digital world?

The answer is tightly linked to what we do about operational business knowledge. Doing knowledge right will require a whole new perspective for building business capabilities – nothing less than a new knowledge paradigm. I call it *business knowledge engineering.*

Basic Principles for Business Knowledge Engineering

The world that presents itself to us today is characterized by ever increasing complexity, expanding scale, and accelerating rate of change. It's time for some *ChannelSanity.* A first and fundamental step in coming to grips with that world is simply to realize that operating on the basis of rules is the *only* viable solution. Based on that understanding, here are three fundamental principles for the new knowledge paradigm.

Principle 1: Follow the same basic rules through every channel.

Providing consistent customer experience requires applying the same basic business rules through each and every channel. These rules should govern both interactions with customers as well as dissemination of products and services to them.

Some people feel that operating on the basis of rules, and applying basic rules uniformly, produces stiff, inflexible behavior. *Not at all!* By basing actions on rules, you can see clearly when to bend them, and when to extend them. It's a basic part of the mindset.

Principle 2: Know what your rules are.

To follow the same basic rules through each channel you must actually know what your rules are*.* How many companies today actually do with any certainty?! How many have their business rules right at their fingertips?

The key to operational excellence is how well you organize, deploy and re-use operational business knowledge. Business rules, quite simply, are the most fundamental kind of operational business knowledge. What has *your* company done about business-side rule management?

Principle 3: Give your rules a good life.

Just knowing your rules and keeping them at your fingertips is not enough. You must give your rules a good life – you must keep them *evergreen.* Business rules must become a living-and-breathing resource of your business.

That's not the way it is today in most organizations. The business has outsourced its business rules to IT (which in turn has often outsourced them off-shore). The rules get mangled in highly convoluted implementations. There's no accessibility for easy adjustments, and no traceability for quickly resolving problems. That's not a winning formula for operational excellence.

Compared with onboarding new digital channels, becoming a knowledge-centric organization will prove much less risky and far (*far!*) less expensive.

What Do You Want to Do with Digital Anyway?

Let's assess rules to see how effective they can be for things that you are likely to want (or to need) to do in 'digital'.

- ***Replace brick-and-mortar and salespeople or agents with apps.*** The matter here is quite simple – you'd better know what rules you want to follow. By definition, *people* will no longer be in the loop to make things right with the customer.

- ***Up-sell or cross-sell products and services.*** To make the right suggestions you'd better know your customer – deeply and at scale. In other words, you need integrated knowledge about them.

- ***Satisfy regulators or compliance or business partners you're doing things right.*** You'll need to be able to trace equivalent rules through each and every channel. Giving your rules a good life can make all the difference in the world.

Something else you'll want to do in 'digital' is differentiation of your business products or services. Most companies do want customers and clients to perceive them and their business products as unique or special.

The cheapest way *by far* to 'do different' is not by via new storefronts or websites or channels but rather via rules. Think about it. Rules don't cost you anything except the time it takes to capture, deploy and manage them.

What Are True Business Rules?

An important step in gaining a new perspective on applying knowledge effectively in daily business operations is to understand what a true business rule really is. Don't underestimate how pervasively across your organization *business rule* is misunderstood.

A true business rule is simply a criterion used in daily business operations to shape behavior or make decisions. The things that IT implements under today's software platforms are not true business rules; rather, they are encoded *representations* of business rules.

By *true* business rule I mean all the following.
- *True* business rules are about running the business, not its systems. Your company would need its true business rules even if it had no software. True business rules apply no matter whether activities are automated or not.

- *True* business rules are not meta-data or information. Only through gross misinterpretation or misunderstanding do they fall under that umbrella (and the related organizational function). Instead, true business rules are a form of knowledge. They are about what you need to know to make things work properly in daily business operations. Knowledge is knowledge. Information is information. They are simply not the same thing.

- *True* business rules are about human communication – people-to-people communication, people having business conversations. True business rules enable business people to communicate operational business knowledge, not just things IT can implement. Such communication is especially important if (as is so often the case these days) the people are displaced by time and space.

Achieving these knowledge-related goals requires two things:

1. Business rules must be *written*. (If you are part of an agile project that believes otherwise, you need to rethink.)

2. Business rules must be written in declarative form using *structured natural language*. Here is an example of how a true business rule is written.

   > *An account may be considered overdrawn only if cash withdrawal is greater than the current balance of the account.*

When it comes to communicating knowledge, Murphy's Law definitely applies. If something can be misinterpreted it *will* be misinterpreted. Capturing and expressing true business rules completely and accurately is a rich skill. (By the way, machines should certainly be able to help us with that.)

The need to communicate business rules in structured natural language led our company to create a world-wide set of conventions called *Rulespeak®* (free on www.RuleSpeak.com, now in 6 languages). There's simply no substitute for precise, unambiguous communication of operational business knowledge. It's central to business knowledge engineering.

Author

Ronald G. Ross is Co-Founder and Principal of Business Rule Solutions, LLC (www.BRSolutions.com). BRS provides workshops, consulting services, publications, and methodology supporting business analysis, business rules, business vocabulary, and rule management. His popular public seminars on business rules and business analysis, the first on business rules (starting in 1996) and the longest-running in the industry, are given through AttainingEdge (www.AttainingEdge.com).

At BRS, Mr. Ross co-develops Proteus®, its landmark business analysis and business rules methodology, which features numerous innovative techniques including the popular RuleSpeak® (available free through www.BRCommunity.com). These are the latest offerings in a 30-year career that has consistently featured creative, business-driven solutions.

Mr. Ross also serves as Executive Editor of www.BRCommunity.com and its flagship on-line publication, *Business Rules Journal*. He is a regular columnist for the *Journal's Commentary* section which also features John Zachman, Chris Date, Terry Halpin, and Roger Burlton. *BRCommunity.com*, hosted and sponsored by BRS, is a vertical community for professionals working with business rules and related areas. Mr. Ross was formerly Editor of the *Data Base Newsletter* from 1977 to 1998.

Mr. Ross is recognized internationally as the "father of business rules." He has served as Co-Chair of the annual Business Rules Forum Conference since 1997. He was a charter member of the Business Rules Group (BRG) in the 1980s, and an editor of the two landmark BRG papers,"The Business Motivation Model: *Business Governance in a Volatile World"* (2000, revised 2005) and the "Business Rules Manifesto" (2003). He is also active in OMG standards development for business rules and business models.

Mr. Ross is the author of eight professional books. His newest are: *Business Rule Concepts* (2005), a second edition of his popular, easy-to-read 1998 handbook, and *Principles of the Business Rule Approach*, Addison-Wesley (2003), featuring the business rationale and opportunity for business rules. An earlier work, *The Business Rule Book* (1994, 1997), was the seminal work in the field.

Mr. Ross received his M.S. in information science from Illinois Institute of Technology, and his B.A. from Rice University.

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