Insource or Outsource Testing: Understanding Your Context

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STAR East 2009

Updates

- This presentation is ALWAYS under construction
- Updated slides at http://www.developsense.com/past.html

An opening exercise

1. Arrange into groups of 10.
2. Introduce yourselves
3. Identify a decision to be made
4. Make the decision

Outsourcing

- "Getting someone else to do work you don't want to do, so that you have time and resources to do the work that you do want to do."
- Testing is "questioning a product in order to evaluate it" (Bach) or "an empirical, technical investigation of software, done on behalf of stakeholders, with the intention of revealing quality-related information of the kind that they seek" (Kaner)
- Two questions:

  What questions might you have about your product?

  Why might you want someone else to ask or answer them?

Plus one more question…

What might get in the way?

Outsourcing Services?

- Testing and software development are *services*
- Drucker noted that manufactured goods can be outsourced more easily, but that services are different
- Goods can be manufactured and tested to measurable, tangible specifications
- Services depend on close collaboration, personal relationships, and proximity

Thanks to Cem Kaner for this reference.

Offshoring or Outsourcing?

- Offshoring (typically) refers to sending work overseas
- Outsourcing (typically) refers to sending work to another company
- Yet either way, there are so many dimensions of culture that we can expect similar kinds of issues

  Maybe the biggest issue is that culture tends to be invisible.

Factors in Outsourcing Services

- general skills
- specialized skills
- specialized equipment or tools
- price of labour
- price of materials and support
- transfer of information
- assignment of responsibility
- liaison between groups

Value?

Cost?

Factors in Outsourcing Services

- intellectual capital
- intellectual property
- confidentiality
- timeliness
- design responsibility
- culture
- recording and reporting
- interpretation of results
- mission

Value?

Cost?

Factors in Outsourcing Services

- day-to-day direction
- budget
- schedule
- managers
- attrition and reassignment
- responding to change
- infrastructure
- travel

Value?

Cost?

Factors in Outsourcing Services

- labour law
- intellectual property law
- ethics
- domain experience
- interaction between individuals
- adaptability
- software licensing
- compatibility of equipment and tools
- extent of collaboration

Value?

Cost?

Factors in Outsourcing Services

- xenophobia
- fear of job loss
- language
- values
- national politics
- gender politics
- approaches to the work
- dispute mechanism
- conflict resolution

Value?

Cost?

Consider the past few slides

Have you even
figured out that stuff
in *your own* shop?

See http://www.kaner.com/pdfs/outsource.pdf

A Quick Tool For Sorting Out Context
"CIDTESTD -- Mother Approved"

- Customers
  - *Anyone who is a client of the test project.*
- Information
  - *Information about the product or project that is needed for testing.*
- Developer relations
  - *How you get along with the programmers.*
- Team
  - *Anyone who will perform or support testing.*
- Equipment & tools
  - *Hardware, software, or documents required to administer testing.*
- Schedule
  - *The sequence, duration, and synchronization of project events.*
- Test Items
  - *The product to be tested.*
- Deliverables
  - *The observable products of the test project.*

See http://www.satisfice.com/tools/satisfice-tsm-4p.pdf

What's the mission for the outsourcer?

- Find Big Problems
- Assess Quality/Risk
- Certify to Standard
- Fulfill Process Mandates
- Satisfy Stakeholders
- Develop Tools
- Rote Repetition of Scripted Tests
- Implement Automation

- Advise about QA
- Advise about Testing
- Advise about Quality
- Maximize Efficiency
- Minimize Cost
- Minimize Time
- Assure Accountability
- Apply Special Skills (e.g. Security, Internationalization)

See http://www.satisfice.com/tools/satisfice-cm.pdf

Culture
"The things that we do when we don't realize that we're doing them."
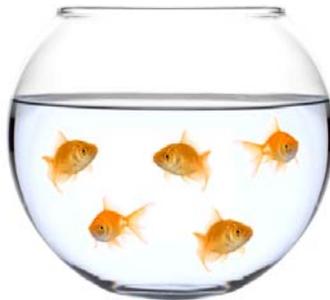
If you want to know something about the water, don't ask the fish…

Culture
"The things that we do when we don't realize that we're doing them."

…unless the fish has experience
with the anti-environment.

Cultural Issues

- Communication
  - face-to-face communication has greatest cognitive power (we're evolved for it)
  - email, telephone, IM intensify certain senses while eradicating others
  - languages, idioms, and catchphrases vary, even within countries or companies
- Values
  - understanding of what's important
  - work ethic and views about work-life balance

Possible Solutions

- Meet face-to-face
  - helps recognition and understanding of cultural differences.
- Rotate resources between workplaces
  - networks thrive on interpersonal bandwidth
- Go both ways
  - clients visit vendors, vendors visit clients

All this flying around?! Outsourcing was supposed to *reduce* costs!

- If you like, you can easily cut costs to *zero*.
- Consider the *hidden* costs associated with miscommunication and misunderstanding.
- Also, just for a moment, consider *value.*

Problem:
Guiding Testers

- Comprehensive prescriptive documents
  - are expensive to produce
  - are biased towards focused tests
  - rarely outlines motivation
  - don't foster genuine learning
  - displaces the goal: investigation of the product

Possible Solutions

- For test ideas that are highly deterministic and automatable ("knowns"), automate (especially at the programmer level) or specify
- For anticipated risks ("known unknowns"), use test coverage outlines and risk lists
- For unknown risks ("unknown unknowns"), guide testers with broad, concisely-expressed missions
  - insist on experienced explorers, or train them with personal supervision

Problem:

Detecting project risk at a distance

- When the client asks, "Are there any problems?", the service provider will often simply reply, "No."
- People in general don't know much about the unknown unknowns…
- …and if they do know,
  they might not say so.

Possible Solutions

- Change the deliverable
  - Instead of asking, "Are there any problems?" ask for *today's top five obstacles*
- Apply trust where it's warranted
  - but how do you know?
- Plenty of exchange visits
- Insist on tester skill over process

Possible Solutions

- Show that you're paying attention
  - feedback and appreciation emails on good work help to increaseuality of output
- Use multiple communication channels
  - email, IM, teleconference, video conference

Pitfalls
Identifed by Shrini Kulkarni

- "In testing especially, clients tend to think that vendors have some magic to reduce testing costs and provide quality service. They do not suspect tall claims about automation reducing cycle time, year on year continuous improvements and so on from vendors."
- Differences in how client views vendors work and vice versa (motivations, goals and ways of achieving goals)

Pitfalls
Identifed by Shrini Kulkarni

- Vendors simple formula that "if there is a problem in the quality of deliverables or escalations - that must be due to process issues. Skill comes last in their list of things to "fix"
- Vendors at times focus solely on growing their headcount (that is, billable hours), and clients continue to be ignorant about suggestions about increasing head count.

Mitigation: *Test the testing*. Even companies that outsource testing will need to have some testers locally, if only to evaluate the quality of offshore testing. Alternative: Have your customers do that.

The Orange Juice Test
A Story From Jerry Weinberg

The answer you *want* to hear is
"Yes, we can do that...
and here's what it's going to cost you."

Before You Outsource

- Consider increasing value at home, rather than shipping low-value work abroad
  - Consider *eliminating* low-value work; why bother with it?
- Prepare for a long-term relationship
  - you're going to marry these folks

Before You Outsource

- Require actual skills, not mythical process
- Require information, rather than data
- Don't advise or become a victim of goal displacement
- Note the hidden costs
  - resentment over job losses
  - fear of forthcoming job losses
  - if you're offshoring, someone is coming in early staying up late
  - cultural and communications missteps

Some "hidden costs" aren't so well-hidden if you're already paying attention.

Before You Outsource

- Interview, probe claims, ask for evidence, ask for detailed stories
- Be skeptical about vendor claims
- Reject "best practices" marketing as evidence
- Reject certifications as evidence
- Reject dazzling ROI numbers as evidence
  - the value of excellent testing can be qualified, but not reasonably quantified
  - if you observe by counting, people will make the numbers look good, consciously, subconsciously, or unconsciously
  - consider other means of evaluation

Before You Outsource

- Seek outsource organizations that can provide rapid learners
- Engaged first-timers might be a better choice than rote old hands
- Understand the inherent contradiction in the business models of yours and the vendors.
- For automation outsourcing ... http://shrinik.blogspot.com/2008/09/10-commandments-for-automation.html

For Vendors

- Focus on value of work, rather than volume
- Focus on tester skill, rather than process
- Focus on stories, rather than metrics
- Make sure to link costs and benefits
- Invest in building long-term relationships
  - exchange visits
  - develop familiarity with client's culture, technical and business environment

For Everyone

- Testing is complex, cognitive work, not factory work or piecework
- The value of testing is the value of the information to decision makers
- Watch out for non-linear and reversal effects
  - In the West, *people* are expensive and *things* are cheap
  - In the East, *things* are expensive and *people* are cheap
  - However, these tendencies are rapidly reversing in both places

For Everyone

If you don't turn yourself into a commodity,
you need not fear for your job

References

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