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THE "GIVE ME A ROCK" PROBLEM:

WHOSE PROBLEM REALLY IS IT?

A WHITE PAPER

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WHITE PAPER

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1. INTRODUCTION

Greg Borek's, well-known "Give Me a Rock" story first appeared in the January 1993 issue of *Random Access Humor* (1993). In it, a programmer attempts to elicit requirements from a user. The user states he wants a blue rock. The interaction quickly degenerates into a series of frustrating attempts by the programmer to satisfy the user's demand for "a rock" that is "blue".

Borek's story humorously illustrates an all too frequent business problem: how to extract technical and business requirements, efficiently. The story, of course, is told from the programmer's view. Managers and customers are presented as dunderheads. In "Give me the Rock", programmers are portrayed as the long-suffering heroes, the victims of pig-headed incompetence and stupidity.

However, it that really what is going on? While it is statistically undeniable that some customers may be dunderheads or even crazy, statistical probability would strongly suggest that the majority of customers are not. What Borek describes is really a communication problem. The Customer may seem to be a blockhead. More likely, however, they simply lack the tools to describe something that is exceedingly complex, with a great number of both known and unknown dependencies. The smug programmer may actually not understand or possess the tools for effective and efficient communication.

Our attempts to accurately describe and track a set of incremental tasks that collectively result in a larger, interconnected goal pre-date the pyramids. Complexity has assured that what once worked in the past is now obsolete. Working definitions of "fitness for purpose" and "fitness for use"—when applied to the real world of business and the broad class of engineering and project management—no longer seem to make the sense that they once did.

All of this has had a profound effect on project management practices and project quality standards. For decades the debate has devolved to, "how much information is enough"? Instead, of a debate, there needs to be a discussion about, "what kinds of information is needed"?

One past effort to solve this problem in software engineering resulted in the "waterfall" model. Waterfall's sequentially phased approach collects voluminous amounts of both content and the necessary supporting context, but it is also ponderously time consuming with voluminous documentation, and as a result often expensive and rife with the inherent risk of enormous inertia in a universe of continuous change. These weaknesses have resulted in an unfortunate track record of project failures that is well documented. In its place has emerged the Agile Framework, based upon a set of principles where requirements and solutions evolve through the collaborative effort of self-organizing cross-functional teams.

In particular, the Agile ethos of "Do Less" (Collier, 2012, p. 107), while solving many—if not most—of the inherent problems of "Waterfall", has unfortunately resulted in its practitioners effectively throwing out the baby out with the bath water. The Agile Framework emphasis on face-to-face conversation as the most "efficient and effective method of conveying information to and within a development team" (Agile Alliance, 2016), has been incorrectly interpreted as meaning, "no documentation", rather than "minimum documentation" (Sivanantham, 2012). All too often—even when minimum documentation is implemented—critical context information is missing that inexorably leads to unnecessary project ineffectiveness and inefficiency.

"How much information is enough", however, is an important issue. This article postulates that one of the components that should be discussed in the on-going Agile debate is the question of "context" and how to efficiently and effective ensure that context is integrated into the Agile documentation process.
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1.1 Communication and Knowledge

In a recent *Forbes* article, "*Why Communication is Today's Most Important Skill"*, Greg Satell (2015) points out that while we tend to treat knowledge and communication as two separate domains of human behavior, they are, in fact intimately intertwined. One without the other—whether by accident or design—can have profound effects upon the choices we make and the actions we take. Communication without accurate knowledge, and knowledge without communication, regularly produce unexpected outcomes—invariably with devastating results.

To make matters even more complex, many of us also tend to act as if communication is one-way. To the contrary, communication is clearly a reciprocal process. We tend to take communication for granted. Moreover, we tend to consider it only from the vantage point of ourselves. We tend to forget the consequences of communication breakdown, and its profound effect on others.

To have any chance of knowing whether a message has been successfully received—and successfully understood—communication must be both acknowledged and verified. Accurate communication is essential to normal workplace operations and problem solving, much less the management of interpersonal conflict, business conflict, and the various dysfunctions that occur within each of our daily lives.

1.2 Get the Picture

To present an Agile example, Lee Henson (AgileDad.com) uses an exercise to illustrate the challenges of the "rock" problem and communication under stress—and gives us an elegant approach to illustrating its solution—which I have adapted as follows:

1. Two individuals—a "Sender" and a "Receiver" sit facing each other across an empty table small enough so that the Sender can easily observe the Receiver's actions.
2. In front of the Receiver is a blank sheet of 8½ X 11 white paper placed in "portrait" orientation. Next to the paper is a No. 2 pencil and eraser, commonly used for student testing.
3. In the hands of the Sender—shielded from the Receiver's view—is the "Picture".
4. The Receiver's task: to accurately recreate the "Picture" onto the blank sheet of paper in front of them, <u>guided only by the verbal instructions of the Sender—with no hand gestures or any other body language as aids</u>.
5. The task has a fifteen-minute time limit.

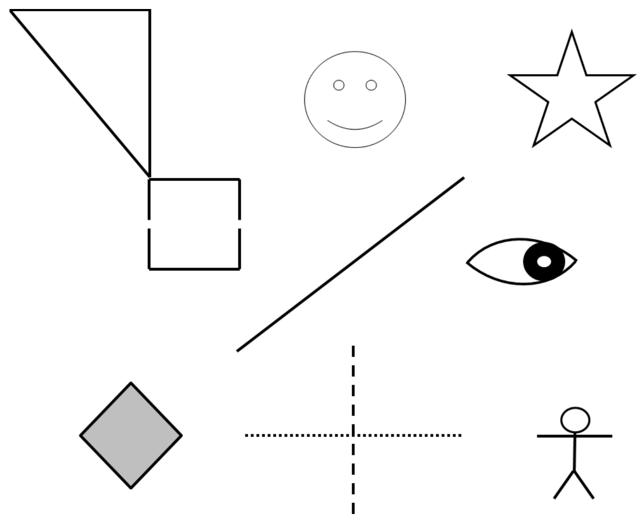

Figure 1: The Picture

It is an impossible task to achieve, unless the Sender first instructs the Receiver to fold the blank paper into thirds so that the paper is divided into nine (9) equal sections. The Sender must then instruct the Receiver to place the now scored paper in a landscape orientation on the table in front of them, before proceeding with further instructions on what and where to draw the Picture's nine objects.

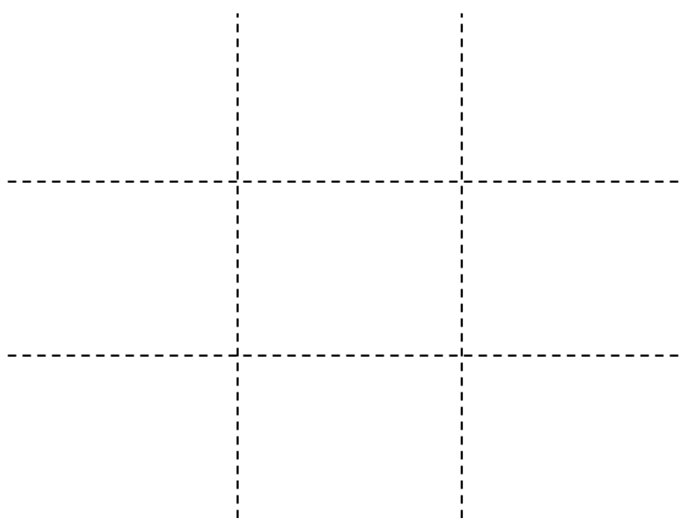

Figure 2: The Fold

Now both the Sender and the Receiver have a common point of reference (knowledge) to complete the task. The exercise can be easily completed in the 15-minutes allotted, with time to spare. Through the action on folding the paper and creating scoring to guide them both, "***context***" has been created.

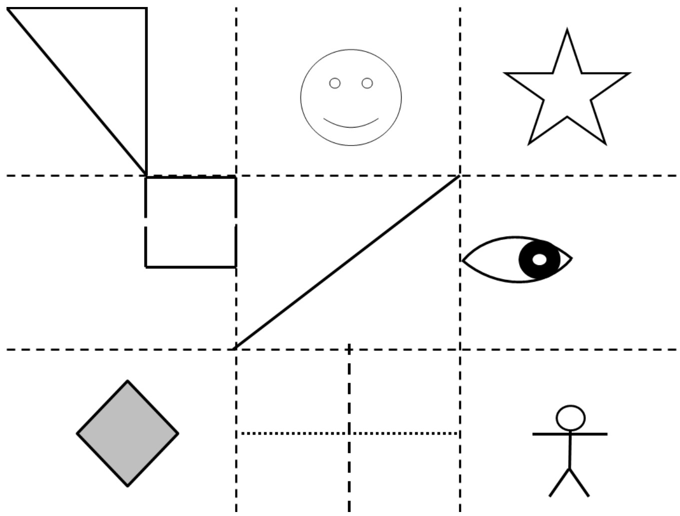

Figure 3: The Solution

Whether using the Waterfall approach, Agile, or something else—no matter how similar individual projects may be—all require an underlying framework of context. Without it we cannot give accurate meaning to the information used to describe the fitness for purpose and use.

So why talk about context at all? What does this have to do with business and information technology? Everything. Without context, communication—at best— is fraught with misunderstanding, unintended conflict, wasted motion, and lost time. Without context to give nuance to content, those on who we rely to get the job done—whatever that job is—cannot accomplish their assigned tasks. They have neither the time, nor the necessary tools to understand and gain knowledge. As the *Get the Picture* exercise illustrates, they do not have the contextual framework a true understand of what needs to be done to achieve their assigned goal.

Context is not just knowledge that gives framework and meaning, *it is the right knowledge*. As any lawyer can tell you, too much information can hide the truth just as efficiently as no information at all.

Without it, we cannot truly communicate.

2. Context Mapping

One possible solution to the rock problem is to ensure that context is always linked to content. A set of categorical references—a checklist— that allows us to attach insights to the subject matter before us: a Content Map.

For the purposes of illustration, I use the Agile approach, as previously discussed, a framework that values the minimization of artifact and document creation. If we are going to try to add context to content, we do not want to create something that adds to the all too frequent problem of information overload, or unnecessarily create additional non-value steps to our process.

Below is a directive—in Agile Story format— that is indecipherable without context:

> *"As VP Marketing, I want to review the performance of historical promotional campaigns so that I can identify and repeat profitable campaigns".*

A typical, "get me a rock" directive.

However, what does this tell us? Only that the Marketing VP wants to identify the performance of past promotional campaigns to produce successful future campaigns:

- The VP of Marketing gives no indication about which specific promotional campaigns are under discussion, nor do we know where we should look for historical data.
- We lack information regarding the period these promotional campaigns occurred.
- We do not know what performance metrics that the Marketing VP wishes to focus on, or what reporting tool or tools the Marketing VP wishes to use.
- We do not know who we can go to discuss this, whether there is any embargoed of information, or where to find related artifact and documentation.

We are missing the necessary "Who, What, When, Where, Why, and How" information that will help us to successfully attack this problem. We lack context. What if—Instead of the lone, "Plain Jane" Agile Story format—we provided a "context map" using the following fields of information:

- **Summary:** a high-level description of the problem and the desired outcome. For example:

    "For the past two years the company's performance on its Brand X, Y, Z radio promotions has had uneven success in boosting sales in the twelve major geographic markets we service. In some markets the radio promotions meet our desired marketing objectives of an annual 10% increase, and in others not. A statistical analysis of our marketing and sales data reveals no strong correlation. I want to identify the causal factors that appear to be contributing to this uneven performance through a Design of Experiments that will identify the likely causal factors, and then track their performance over the next 12 months."

- **Context:**

    - Filtering: with whom can this information be discussed? For example:

        "This information is embargoed for all individuals, with the exception those individuals specifically listed as Points-of-Contact (POC), or their designees."

    - Who: who owns this Epic? For example:

        "MaryAnn Brinkley, Marketing VP."

    - What: what needs to be accomplished? For example:

        "Gap Analysis, Design of Experiments, and Data Collection / Reporting Plan covering all twelve major geographic areas. A gap analysis need s to done Marketing data for Brand X, Y, Z radio promotions needs to be done with the context of our present reporting system. What information are we lacking? What sources, both internally and externally, are available to the company better interpret our performance objectives? What vendors are available? What additional resources are needed, and what additional costs can be expected?"

    - When: when does this need to be accomplished? For example:

        "NLT eight (8) weeks after approval of approved Data Collection / Reporting Plan. Gap Analysis is due for presentation to the Product Owner NLT February 1. Initial drafts, two weeks prior to their final delivery date.

- Where: where do I look? Or, perhaps, where is the desired output to be delivered? For example:

  "Existing Raw data is located in the Marketing System Data Base, filtered on Venue (Radio) and Geographic Market.
  The initial drafts are to be submitted to David R. Smith, Director of Marketing Analysis."

- Why: specifically why is this important? For example:

  "The cost of our radio advertising has added a 15 percent cost to our X, Y and Z Brands over the past two years, without the projected 25 percent increase in sales. Adding additional margin to the cost of our X, Y and Brands will make us uncompetitive in these markets."

- How: how will this task be accomplished? For example:

  "A Project Team composed of five individuals; three from Marketing Analysis, plus a Subject Matter Expert from each of the three Brand departments will organize a project, with a project charter of no more than 10 pages, with a detailed communication plan setting inter and intra group communication expectations and venues . Additionally, a Project Manager from Marketing Analysis will be assigned by the Director, prior to the beginning of activities. Funding for this project is authorized, and shall be tracked under Expenditure Code: M2016-12345.

  The Agile framework will be used, with daily scrums, Scrum of Scrums NLT twice each week, Portfolio scrums on a weekly basis. All impediments are to be reported at the next available Portfolio scrum. All Agile Backlogs, Epics, Stories, and Tasks are to be maintained using <Software / application>."

- **POC's:** Who is the primary POC's for this effort? For example:

  "Primary POCs for this effort are:
  Richard Ambrose: Assistant to the VP of Marketing
  David R. Smith, Director of Marketing Analysis
  Vice President or designee, Brand X
  Vice President or designee, Brand Y
  Vice President or designee, Brand Z"

- **Artifacts:** Where can the important artifacts to be found? Where are project artifacts to be stored? For example:

"Primary source documentation to be found at: <link>.
Project artifacts are to be to be stored at: <link>."

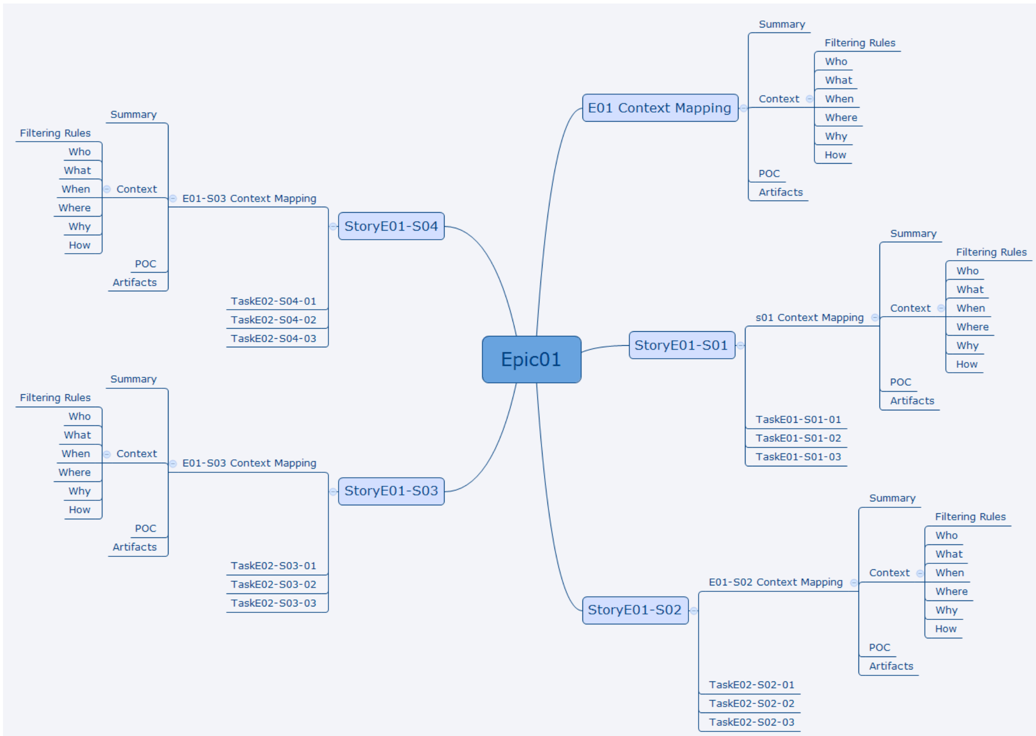

Figure 5: Context in Communication: A Possible Solution

All of this begs the question: What is the benefit? If Agile is about maximizing the "doing" of tasks over the documentation about what is "to be done", what is the point of adding extra documentation?

First, there is a difference between minimizing documentation and no documentation at all. The Agile approach does not reject documentation; rather it embraces the goal of maximizing the effectiveness of the created documentation. More to the point, we have already discussed the very slippery nature of words and symbols. We have already discussed how the content does not lead to clarity without the framework of context.

If accurate communication is the key to efficient and effective action, on what basis can we hope to use content without the benefit of context? Why would we not want the "Who, What, When, Where, Why, and How" of a particular task included? Is it really better to leave this all to chance, leaving us the likelihood of a string of short, chaotic meetings, which, at the very least, result in expensive rework from miscues, and perhaps even ignite the all too frequent occurrence of loss of trust and interpersonal conflict?

Context mapping is all about communicating the vital pieces of information necessary to the accurate interpretation of content upfront, rather than as an ad hoc after-thought.

3. Summary / Conclusion

Context is important. We must intelligently integrate context within our project communication streams on a routine basis. How we communicate is vital to our performance in the workplace, and in life. The actions we take based upon the perceptions of content affect all we think, say, or do. We need communication plans that go way beyond a simple matrix of who is copied on emails, and when. We need the sharing of knowledge to go well beyond a shared drive in a cloud storage location where our artifacts are stored and warehoused, gathering electronic dust. We need—collectively—to find creative ways to provide consistent and focused “context”, so that the content we handle and pass-on to others makes the sharing of knowledge both strategic and tactical.

BIBLIOGRAPHY

Agile Alliance. (2016). *The Agile Manifesto*. Retrieved from Agilemanifesto.org: http://www.agilemanifesto.org

Bergey, J., Smith, D., Tilley, S., Weiderman, N., & Woods, S. (April 1999). *Why Reengineering Projects Fail (Technical Report, CMU/SEI-99-TR-010,0RSC-99-TR-010).* Retrieved June 10, 2006, from Carnegie Mellon, Software Engineering Institute (SEI): http://www.sei.cmu.edu/pub

Borek, G. (1993, January). *The "Give Me A Rock" Problem.* Retrieved from Random Access Humor: http://www.randomaccesshumor.com/bestrah/giverock.php

Collier, K. (2012). *Agile Analytics: A Value-Driven Approach to Business Intelligence and Data Warehousing.* Boston, MA: Pearson Education.

Satell, G. (2015, Feb. 06). *Why Communication Is Today's Most Important Skill.* Retrieved from Forbes: http://www.forbes.com/sites/gregsatell/2015/02/06/why-communication-is-todays-most-important-skill/

Sivanantham, V. (2012, Jan. 26). *Is Documentation Really Wasted Effort?* Retrieved from Scrumalliance: https://www.scrumalliance.org/community/articles/2012/january/is-documentation-really-wasted-effort