Everybody Knows It's True!

Before you read this column, please take the following short quiz[1]. In the 15 statements listed below, circle any that are false (see answers on page 34).

1. The Hundred Years' War lasted 100 years.
2. Panama hats come from Panama.
3. Catgut comes from cats.
4. Russians celebrate the October Revolution in October.
5. A camelhair brush is made from camels.
6. The Canary Islands are named after the large number of canaries found there.
7. The first name of King George VI was George.
8. A purple finch is purple.
9. Chinese gooseberries come from China.
10. The Thirty Years' War lasted 30 years.
11. Saint Patrick was Irish.
12. India Ink comes from India.
13. Queen Elizabeth, who was born in April, celebrates her birthday on Queen's Birthday in April.
14. My metrics tell me the status of my software projects.
15. The Software Technology Conference is the best place to find new ideas to improve your day-to-day software efforts.

How well do you think you did? Since we're all software developers, I know you have already checked your score. In fact, you probably checked out each question as soon as you read it, didn't you?

Then you know it seems that a lot of commonly accepted things are not exactly so, huh? One of the lessons that I learned many years ago is that an array named Sorted_Data might not actually contain data that is sorted. Calling it sorted doesn't actually make it so – you have to examine the code yourself and verify that it is sorted correctly. Likewise, just having a file named Completed_SCRs doesn't really mean that the software change requests entered there have actually been completed, does it? There has to be some verification and validation process to make sure they are really completed.

Here's a current example. I'm writing this column while at the annual SEPG conference in Boston. Scanning the headlines in the local paper, I read about the project known as the "Big Dig." To quote the Web site from the History Channel[2]:

Boston's Big Dig is the most complex and expensive highway project ever undertaken in the United States. The city is replacing an outdated highway infrastructure with a new state-of-the-art highway system, most of which will be underground or underwater.

The 11-year project was scheduled to cost $10.8 billion, but the current budget is now $14.6 billion. The *Boston Globe* ran an article titled "Group Questions Big Dig Savings[3]." Imagine that – there have been cost overruns and schedule delays. First, an oversight committee said that the Big Dig schedules are unrealistic, promising opening dates for the tunnels that continually slip. It said that "failures in coordination" have lead to "persistent scheduling problems." Also, it concluded that Big Dig managers do not undertake "sufficient analysis" to justify expensive work acceleration to meet schedules.

There were also comments on questionable cost savings, too much management, and a need for independent peer review. In addition, the oversight committee disputed the project's claim of saving more than $1 billion by "fast-tracking" (i.e., starting actual construction before the design is completed). In their report, they said, "The committee does not believe that the full cost impact of changes, claims, and delays from incomplete coordination of work packages has been fully considered."

The private sector managers, of course, dispute some of the oversight committees' findings.

You know, this story is just like almost every software project that I've ever participated in! Why did I find this project so interesting? Because just the other day, a workshop student asked me, "Whose metrics do I trust? There always seem to be multiple interpretations of what the metrics mean, and I don't know whom to believe!"

He hit the heart of the problem – what do the numbers mean? You see, a measurement (which is a piece of data) doesn't indicate anything; it's only a number. Put enough measurements together though, and you get a metric – a trend analysis that gives you indicators of how you are doing – whether you are doing better or worse than you were doing before.

But what do they mean? Unfortunately, that's where the problem lies. It's the interpretation of the metrics that causes problems. We don't really know what is good or bad; we only know if the numbers are higher or lower than before.

I'm already out of space, and I've barely covered the problem. Remember that numbers are just numbers. The meaning you attribute to them is a result of analysis. Do you trust the numbers? Do you trust the analysis? Just because a number says you are doing well, remember that the numbers are not reality but only somebody's reflection and interpretation of reality. In short, it's not necessarily true just because everybody says so!

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Notes

1. I wish I could take credit for this quiz. Various versions have been floating around on the Web forever. So, no authorship claimed. (OK, I added questions 11, 12, 13, 14 and 15.)
2. HistoryChannel.com <www.historychannel.com/cgi-bin/frameit.cgi?p=http%3A//www.historychannel.com/exhibits/bigdig>.
3. Raphael Lewis. "Group Questions Big Dig Savings." The Boston Globe 22 Feb. 2003: B1.

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BackTalk Answers

1. The Hundred Years' War lasted 116 years, from 1337 to 1453.
2. Panama hats traditionally come from Ecuador.
3. Sheep (sometimes horses) give us catgut.
4. The October Revolution is celebrated in November.
5. Squirrels give us camelhair brushes.
6. The Canary Islands are named for the large number of dogs there. Remember that the Latin word for dog is canis. The original name for the island was Insularia Canaria: Island of the Dogs.
7. Queen Victoria expressed a desire that no future king be called Albert. Thus, in 1936, when Albert ascended the throne, he respected her wish and took the name King George VI.
8. It's a bright crimson.
9. The tasty berries are from New Zealand.
10. Well, why else would it be named the two Thirty Years' Wars, one from 1618-1648, and another from 1733-1763. The second war consisted of three wars: the War of Polish Succession, the War of Austrian Succession, and the Seven Years' War. The War of Polish Succession was not fought in Poland, but in Belgium, Lorraine, Lombardy, Naples, and Sicily. The Seven Years' War, of course, lasted seven years[1].
11. Gotcha! He was the son of a Roman official and his British wife. He was Welsh. He ended up in Ireland after being kidnapped at the age of 16 and taken there by Irish pirates[2].
12. Comes from China, of course.
13. Well, she was born in April. April 21, 1926 to be exact. However, in Britain her birthday is officially celebrated on the third Saturday of June. In Canada, the Queen's birthday is celebrated on the Victoria Day holiday in May. In Australia, the Queen's birthday will be celebrated this year on Monday, June 9, 2003, with the exception of Western Australia, which will celebrate on Monday, Sept. 29, 2003[3].
14. Your call.
15. Well, OF COURSE!

Notes

1. The Cave Online. "The Thirty Years' Wars." <www.thecaveonline.com/APEH/thirtyyearswar.html>.
2. Bryson, Bill. The Mother Tongue – English and How It Got That Way. Perennial Press, 2001: 49 Footnote.
3. "Birthday of Queen Elizabeth II, the Queen of Australia." <www.statusquo. org/birthday.htm> and "Frequently Asked Questions About Queen Elizabeth II." <www.mun.ca/library/ref/qeIIfaq.html>.