Website Out of Order!

Your on the
Street Reporter

Uyless Black

The Obamacare Website:
Software-Assisted Suicide

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Hello from Your on the Street Reporter. Can a few hundred geeks thwart one of the most far-ranging social programs ever conceived in America? Can a few hundred propeller heads who were (seemingly) forced to ignore their unfinished system bring down a presidential administration, at least in terms of its legacy?

The next few weeks will tell. If the answers to these questions are yes, it will represent one more (significant) example of our dependence on computer software. Even if the answers are no, it is still another example of modern society's evolution to the Web and away from the 800-number telephone system.

The current situation with the health care website is unusual. The design and creation of a website should have been a routine matter. I have surfed the Internet for information about the technical aspects of the problem. Thus far, I have not come across much of substance. However, there are tidbits available that will be used for this report to make some assumptions about what went wrong.

I'll use an analogy to help with the technical explanation: A bank servicing its customers. If appropriate, I will also use the analogy of designing and building a car.

Contractors for the ObamaCare Web Site

Centers for Medicare and Medicaid Services (CMS)
QSSI, a part of UnitedHealth Group
CGI Federal (According to a reporter, Kate Pickert, the lead contractor.[1] Also, cited as the top contractor by the *Wall Street Journal*[2])

No Full-Load Test = Not Enough Tellers. The first observation led me to take off my propeller cap and wipe my brow. The technical team responsible for this project (designers, software and hardware engineers) did not do a full-load test of the site before it went online. By a full-load test (in this context), I mean subjecting the site to the volume of logons and subsequent interactions that would likely occur when the site went live. Furthermore, they did not allow enough time to test.

Using the bank analogy, the situation is like opening a new branch office, advertising free toasters to all new customers, unlocking the door on the first day of business…with *one* teller window open. The situation also is akin to building a car from scratch, and before putting it in the car dealer's showroom, test driving it at 40 miles per hour. The car was conceived and created for speeds of 120 miles per hour. The car designers knew full well their product would be

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[1] *Time* Swampland: http://swampland.time.com/2013/10/24/404-accountability-not-found-contractors-blame-feds-for-obamacare-snafu/

[2] Grutham Nagesh, "Executive to Defend Firm's Role in Troubled Web Site," *Wall Street Journal*, October 24, 2023, A4.

required to go at higher speeds. But …well, what the hell, there was a deadline to meet. Come what may, those doors had to be opened. Customers were waiting.

Decision Making Distorted = Car-Race Pit Boss Takes a Coffee Break. According to *Time*:[3]

> When asked why healthcare.gov was launched as scheduled on Oct. 1 even though problems were identified ahead of time that seemed likely to affect its operation, another contractor at the congressional hearing said CMS made the call to proceed anyway. "It was not our decision to go live…It was CMS's decision," said Cheryl Campbell, an executive from CGI Federal, the lead contractor that developed the Web site in concert with CMS and other firms.

If the *Time* quote is accurate (and well as *Wall Street Journal* citation (footnote 2)), CGI Federal---as lead contractor---relinquished its responsibility for overseeing the project. CMS was a subcontractor and should never have been able to dictate the testing schedule.

However, as explained in more detail shortly, even the quote above is confusing, as all three contractors claim they had no authority to make a decision of going live, only the Obama administration. So, what is Ms. Campbell talking about?

Anyway, whoever the "pit-boss" was for the going live decision---government or contactor(s)---the pit boss failed miserably.

Insufficient Testing of System Logic = Insufficient Training of the Tellers. In addition, the Congressional hearing on October 23, 2013 brought out that the system's features were not tested sufficiently. The hardware and especially the software were not sufficiently debugged (checked for coding errors and design deficiencies). When the website was up, the software sometimes produced erroneous results, such as enrolling a person twice into a plan!

For the bank and car-race crew comparison, the personnel were not trained well enough. They were not "debugged." Taking the comparisons further: the bank tellers did not understand how to service a teller window on discerning various deposits and withdrawals. A race crew member was not trained into how to remove the lugs on hot tire expeditiously.

The Congressional hearing also revealed:[4]

> …the contractors for the site said each of their individual parts functioned but no one in the government made sure all of them worked together. The Federal Centers for Medicare and Medicaid Services acted as its own systems integrator for the site.

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[3] *Time* Swampland.

[4] Jennifer Corbett Dooren, "Late-November Target Is Set to Fix Health Site," *Wall Street Journal*, October 26-27, A4.

One moment. "…each of their individual parts functioned."? How about the function that enrolled a person twice in a health plan? Their claim is clearly false. Systems integration would not deal with this kind of bug in the software.

The congressional leaders conducting the hearing needed a geek sitting behind them, whispering in their ears that the contractors were blowing smoke and covering themselves. (Too bad, I was available at a moment's notice.)

Web Site too Slow = Not Enough Teller Intelligence, Not Enough Horsepower. Complaints came in immediately after the Web site went semi-live that it was very slow, that response time was sluggish. This problem likely stemmed from an insufficient number of hardware servers to accommodate the large number of customers. It might have come from poorly designed software or an under-performing network that connected the hardware.

From current documentation, I cannot say where the problem was (is). Nonetheless, because of the lack of shake-down testing time, this problem was not addressed.

Thus far, it appears the problems cited above represent the major troubles with the Affordable Care Act website. I would also question: (a) Why some changes were made to the software just before the site went live, changes that did not deal with errors? (B) Why the contractors, who claimed they fully tested their own parts of the system, still had major bugs, such as dual enrollments? (C) Why the Obama people, fully aware that the system had not gone through a full shake-down, went ahead anyway.

This last point is staggering. It's akin to a car designer testing the engine before the engine is connected to the drive shaft, and then assuming the engine and drive shaft will work together perfectly.

The Blame Game
Aside from testing, I also read that the technical teams were given insufficient time to build the site itself. I read that the Obama administration was warned of this danger but went ahead anyway. If this is the case, the ultimate responsible party for this debacle is the Obama administration, both for hasty site construction and inadequate site testing.

I believe such a decision was made because a technically competent person was not in a powerful enough position to convince the Obama administration that the delay of bringing the site up correctly, (but late) would have fewer negative consequences than bringing it up on-time (but incorrectly). This technical decision has had huge political consequences.

Robin Hood Arrives
Obama has called on one of his trusted trouble shooters, Jeffrey Zients, to "fix the problem." Zients fixed the car clunker rebate problem. He reduced the backlog on signing-up 8/11 veterans for a college education. Mr. Zients is a specialist in budgets and financial matters. But, he is not facing a straight-forward debit/credit problem. He is facing an ephemeral software problem. I wish him well.

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Based on what I have read, some of the software is inherently faulty and ill-designed. "Fixing" this kind of software has its own perils: introducing yet more faults (bugs). Often, the software must be trashed, and the coding started from scratch.

A Rule of Life
In the mid-1970s, I wrote an article for *Infosystems* magazine dealing with Gestalt psychology as it applied to sofware design. Using Gestalt concepts, the article advised a programmer to "keep the scope effect of a software's actions" under the "scope of control" of that software. And *never* let the software allow its effects to "branch out of this software's domain." I said, "Keep the scope of effect within the scope of control."

Forgive this Geekese language. For my later work, I broadened this technical idea to one of my Rules of Life. For this report, I changed it slightly: Keep the scope of effect of a system (any system) under the scope of control of the system manager.

This idea is nothing more than common sense. But the vendors for the Affordable Health Care Act website, and the Obama Administraiton have not adhered to this simple rule. The project leader company let the scope of effect get beyond its scope of control, by allowing another company to dictate the critical testing dates. (Although the lead team claims it was not authorized to establish dates.) The scope of effect---by not properly intergrating all components---led to the almost complete loss of control of these components.

For Obama, the imposition of a likely impossible deadline on getting this Web site running let his scope of effect get beyond his scope of control over his treasured health plan---perhaps *the key* to his legacy.

Can he recover? Can Obama control the possible *political* effects of his losing command of his Web site? Agan, the next few weeks well tell.

Irony in action: "The technical tail is wagging the political dog."

The *Wall Street Journal* also reports that late-November is the target date for having the site fixed.

I bet my modest pile of chips---all in---that this target date will not be met.

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