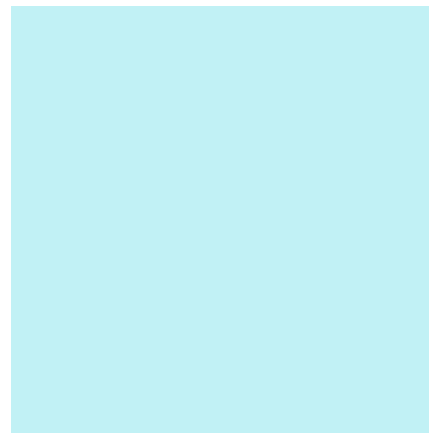
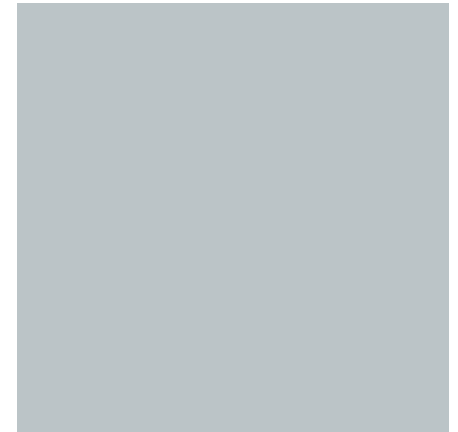


**Developing
Standards for
Defect
Detection:
Establishing a
Top Ten List**



FedCASIC 2009

Lizza Miller, Ph.D.

DatStat

Chief Scientific Officer, Co-founder

Agenda

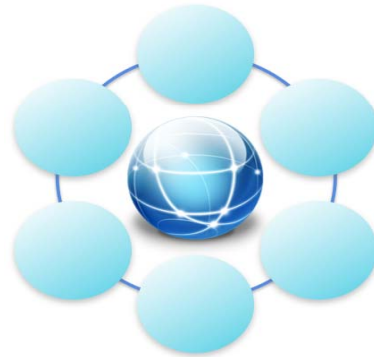
- DatStat Overview
- Method to the Madness
- Top 10 List
- Feedback

DatStat Product Overview



Illume™

- DIY design of surveys, CRFs, PROs, & other forms
- Enter & manage data
- Analysis & reporting
- Secure & reliable



Add-on Modules

The flexibility to extend the power and functionality of Illume™ as needed.



Discovery™

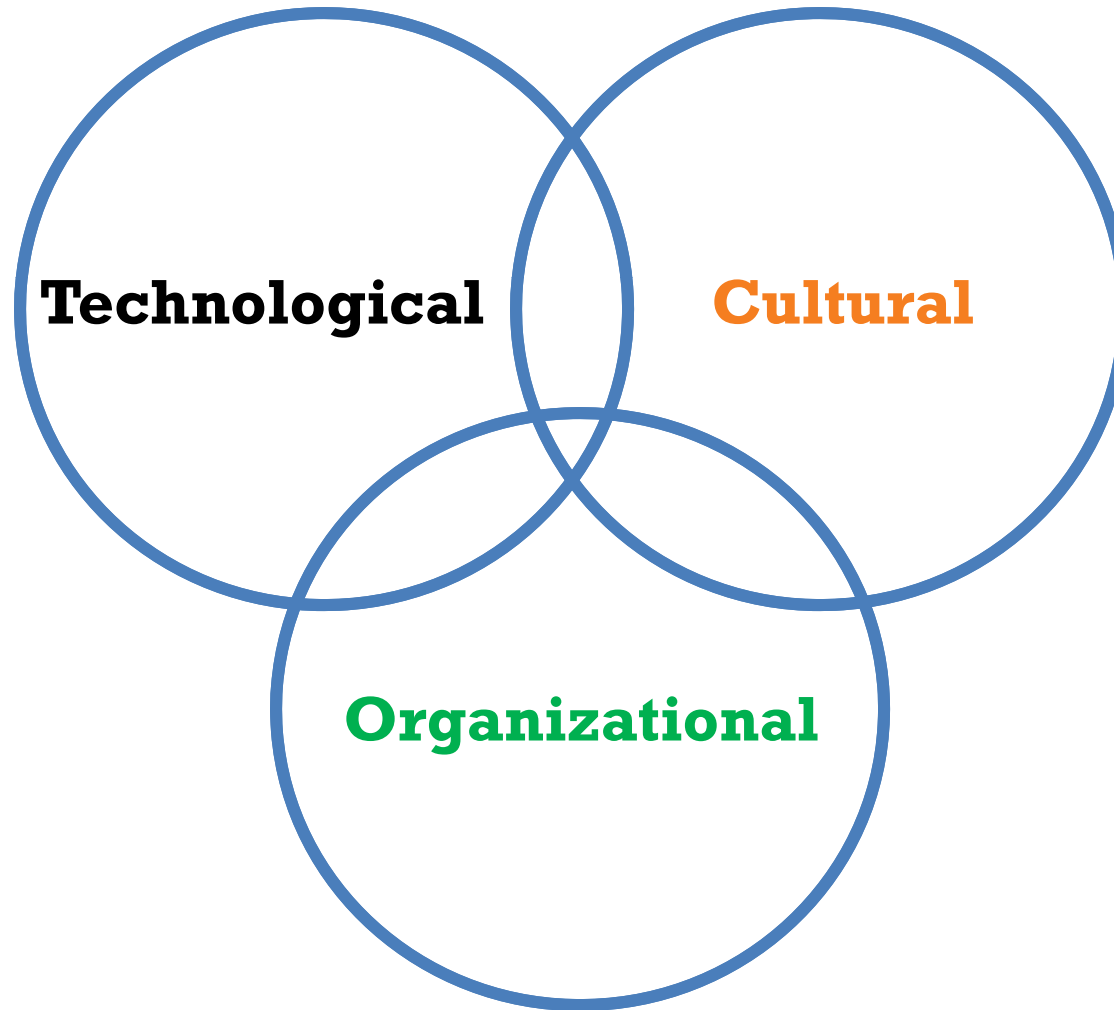
- Research Mgmt System / SMS / CMS
- Longitudinal Studies
- Multi/Mixed-mode
- Reporting Consoles

Drop a pebble in the water: just a splash, and it is gone;
But there's half-a-hundred ripples circling on and on and on,
Spreading, spreading from the center, flowing on out to the sea.
And there is no way of telling where the end is going to be...

Drop a pebble in the water: in a minute you forget,
But there's little waves a-flowing, and there's ripples circling yet,
And those little waves a-flowing to a great big wave have grown;
You've disturbed a mighty river just by dropping in a stone.

James W. Foley, poet laureate

Categorizing Defect Detection





10) Been There, Done That

- Personnel selection
- Software selection
 - Survey software
 - ❖ Easily-to-build calculations
 - ❖ Random data generator, data import
 - ❖ Test-publish mode
 - ❖ Workflow, tree view
 - ❖ Integrated diagnostic & reporting app
 - RMS / SMS / CMS system
 - ❖ Test mode
 - ❖ Workflow, tree view
 - ❖ Integrated diagnostic & reporting app



9) Train

- How to use system
- How to report bugs
 - 1) the set of steps required to reproduce the bug
 - 2) the actual or current behavior
 - 3) the expected behavior
 - 4) the version in which this problem started occurring
- How to prepare and carry out System Recovery plans
- How to adapt as project progresses because different issues and uses of the system arise
- How to retrain new users



8) Connect the Dots

- Organize and prioritize to efficiently address issues
 - Bug meetings (regular review of all open issues)
 - Bugzilla queries (reports on outstanding issues, which can be run system wide, on specific versions, for specific clients, on specific issues, etc.)
 - Support status reports



7) Test, Test, Test

- Test as develop
- Pilot test
- Regression test
- Pre-launch test
- Develop a staging or test system
- Survey specific testing easier than system-wide testing (so staging server crucial)
- Create a constant feedback loop



6) Bugzilla

- Internal reporting and tracking database for bugs, anomalies, feature requests
- Categorize according to:
 - Product
 - Version
 - Severity
 - Priority
 - OS, browser, etc
 - How to reproduce
 - Testing/solution activities
- Version control, source control



5) Audit Trail, Exception Report, Log

- Audit trail as debugging tool, security tool, verify training procedures, and as a trending tool.
- Exception reports identify inconsistencies pointing to defects in software or in the way the survey was developed.
- Survey and system logs serve as starting points for investigation. Often include warnings and descriptions of non-problem conditions. Use to anticipate potential problems and address them before they become real.



4) Create a Culture of “Bug Pride”

- A philosophy and practice: the more data, the better
- Internal and external motivation to report
- Make it known where and how to report
- Make it easy to report
- Respond quickly with status, understanding, plan
- Develop and engage product experts
- Designate at least 1 person at each site who is product expert, can act as solution consultant and primary POC
- Run contests, publicize what was found, how reported, how handled



3) Pizza Party – Bug Bash

- Pool of participants to test the system during the test-publish phase (different interpretations)
- Scenario-based testing
- Builds camaraderie
- Incites competitiveness
- Rewards for # of bugs, severity of bug, etc



2) Sharing is Caring

- Client side AND internally.
- Make it easy for people to report possible issues, view status, see others' input, generate FAQs, comment/answer, and post solutions..
- Alerts to Admin – real-time communication
- Access to:
 - Reporting systems (Bugzilla, integrated reporting)
 - Director of Quality Control (ph and email address)
 - Project Managers with case-specific expertise

1) Build a Bridge – Clients as Partners



- Expect the unexpected from Clients
- Product experts can work with clients to guide them in ways to use the product to better suit goals.
- Requirements gathering process. Collaborative tone starts. Iterative process.
- Kick off call, regular check-ins, phone, email access.
- Designated PM to take meeting minutes, action items recorded, followed-up.
- Shared goal: project success!



Top 10 List

C: Build a Bridge – Clients as Partners

C: Sharing is Caring

C: Pizza Party – Bug Bash

C: Create a Culture of “Bug Pride”

T: Audit Trails, Exception Reports, & Logs

T: Bugzilla

T: Test, Test, Test

O: Connect the Dots

O: Train

O: Been There, Done That

Feedback!

Questions & Answers



Thank you for your time.

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