# CONTEXT-DRIVEN TESTING (CDT)

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*QE-360 Meetup @ Home Credit*
*April 24, 2019*

# PROPONENTS OF THE CONTEXT-DRIVEN APPROACH



**Cem Kaner**

**Brian Marick**

**James Bach**

**Bret Pettichord**

In this talk, you'll have:

- an introduction to the context-driven approach

- the seven context-driven principles by James Bach

- what's included in a context & contrasts of CDT

**SETTING EXPECTATIONS**

# so, consider the following projects:

One is developing the control software for an airplane. What "correct behavior" means is a highly technical and mathematical subject. FAA regulations must be followed. Anything you do — or don't do — would be evidence in a lawsuit 20 years from now. The development staff share an engineering culture that values caution, precision, repeatability, and double-checking everyone's work.

Another project is developing a word processor that is to be used over the web. "Correct behavior" is whatever woos a vast and inarticulate audience of Microsoft Word users over to your software. There are no regulatory requirements that matter. Time to market matters — 20 months from now, it will all be over, for good or ill. The development staff decidedly do not come from an engineering culture, and attempts to talk in a way normal for the first culture will cause them to refer to you as "damage to be routed around".

the projects have different contexts:

testing practices appropriate to the first project will fail in the second.

practices appropriate to the second project would be criminally negligent in the first project.

There is no one-size fits all approach.

*Best practices!? Without context to the project? You kidding me!?*

# Seven Context-Driven Principles

1.  The value of any practice depends on its context.
2.  There are good practices in context, but there are no best practices.
3.  People, working together, are the most important part of any project's context.
4.  Projects unfold over time in ways that are often not predictable.
5.  The product is a solution. If the problem isn't solved, the product doesn't work.
6.  Good software testing is a challenging intellectual process.
7.  Only through judgment and skill, exercised cooperatively throughout the entire project, are we able to do the right things at the right times to effectively test our products.

# what is context-driven testing?

## Seven Context-Driven Principles *(what they're built on)*

People

1. The value of any practice depends on its context.

Skills

2. There are good practices in context, but there are no best practices.
3. People, working together, are the most important part of any project's context.

Science

4. Projects unfold over time in ways that are often not predictable.
5. The product is a solution. If the problem isn't solved, the product doesn't work.
6. Software testing is a challenging intellectual process.

Problem-solving

7. Only through judgment and skill, exercised cooperatively throughout the entire project, are we able to do the right things at the right times to effectively test our products.

## what is context-driven testing?

## Seven Context-Driven Principles *(what they're built on… and more)*

H - Heuristics

A -
Skills

S -
Science

H -
cience

E -

D -
Problem-solving

what is context-driven testing?

## Seven Context-Driven Principles *(what they're built on… and more)*

H - Heuristics
A - Adaptive
S -
H -
E -
D -

what is context-driven testing?

**Seven Context-Driven Principles** *(what they're built on… and more)*

H - Heuristics
A - Adaptive
S - Skeptical
H -
E -
D -

Skills
Science
Problem-solving

what is context-driven testing?

# Seven Context-Driven Principles *(what they're built on… and more)*

H - Heuristics
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H - Humanist
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**what is context-driven testing?**

# Seven Context-Driven Principles *(what they're built on… and more)*

H - Heuristics
A - Adaptive
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H - Humanist
E - Empiricist
D -

# what is context-driven testing?

# Seven Context-Driven Principles *(what they're built on… and more)*

H - Heuristics

A - Adaptive

S - Skeptical

H - Humanist

E - Empiricist

D - Diversified

## what is context-driven testing?

# Context = Project Environment

1. Mission
2. Information
3. Developer relations
4. Test team
5. Equipment & tools
6. Schedule
7. Test items
8. Deliverables

Huib Schoots talk

*(a preview of the heuristic test strategy)* what is included in the context?

# Context = Project Environment

1. **Mission**
   - What is your purpose on this project, as understood by you and your employers?
2. **Information**
   - What information is needed for testing?
3. **Developer relations**
   - Rapport. Hubris. Defensiveness. Feedback loop. Feedback.
4. **Test team**
   - Who will perform the testing?

*(a preview of the heuristic test strategy)* what is included in the context?

# Context = Project Environment

5. **Equipment and tools**
   - Do we have the hardware, software, or documents required to administer testing?
6. **Schedule**
   - What are the sequence, duration, and synchronization of project events?
7. **Test Items**
   - Scope. Availability. Interoperability. Volatility. New stuff. Testability. Future releases.
8. **Deliverables**
   - Content. Purpose. Standards. Media.

*(a preview of the heuristic test strategy)* what is included in the context?

You might be:

1. Context-aware
2. Context-oblivious
3. Context-specific
4. Context-imperial

what are the contrasts of CDT?

context-driven testers:
- reject the notion of best practices, but believe there are good practices appropriate to context

- standards present suggestions, not "implementations"

**context-driven**

context-oblivious testers:
- test without a thought for the match between testing practices and testing problems

- common among testers who are just learning the craft

**context-oblivious**

context-aware testers:
- looks for best practices and standards first, then project-specific factors

- implements standards and best practices to project accordingly

context-aware

Context-specific testers:
- applies an approach that is optimized for a specific setting or problem, without room for adjustment in the event that the context changes

- tester knows only how to work within her or his one development context

**context-specific**

context-imperialist testers:
- insists on changing the project or the business in order to fit the testers' own standardized concept of "best" or "professional" practice

**context-imperialist**

# Any questions?

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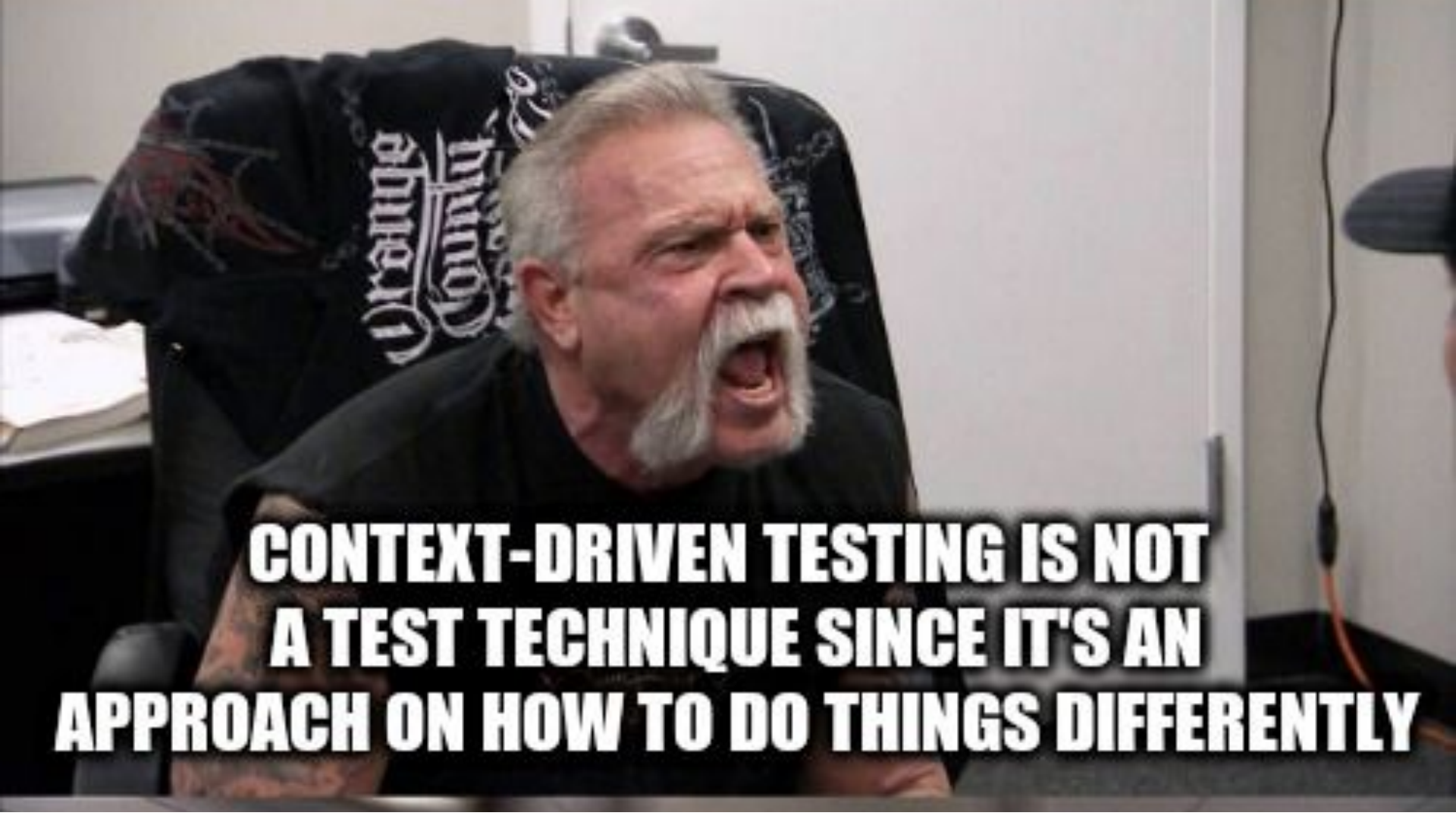Web QA @ Freelancer.com

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so, in a nutshell:

CONTEXT-DRIVEN TESTING IS AN APPROACH

SO IS CONTEXT-DRIVEN
TESTING THE BEST TECHNIQUE?

CONTEXT-DRIVEN TESTING IS NOT A TEST TECHNIQUE SINCE IT'S AN APPROACH ON HOW TO DO THINGS DIFFERENTLY

WHAT'S THE USE OF STANDARDS AND BEST PRACTICES IF WE'RE NOT GONNA USE THEM

STANDARDS REJECT THE UNIQUENESS OF THE PROJECT ENVIRONMENT WHERE BEST PRACTICES MIGHT FAIL