

AST 2009 Charette Slides

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1: Key Challenges in SW Test Automation

- Solution domain is software test automation
- Hasn't been done before
- *Or hasn't been done well enough*
- Challenging to do
- *A real research problem*
- Worthwhile to do
- *Makes a good business case*
- Reasonably possible to do
- *E.g., prototype within 2 years*



Some signs of challenges that aren't really "key"

- "Glass bead games"
- *Challenges that are ends in themselves*

- "Motorized unicycles"
- *Technology as an end in itself*

- "It's not a problem, it's a lifestyle"
- *Has been tried for decades, by dozens, with meager practical results*

- "Polishing a smooth ball"
- *Success will add value, but not enough*

- "The gods themselves contend in vain"
- *Contending against stupidity*
- *Worse, supporting stupidity*



What's your key challenge in software test automation?

- Solution domain is software test automation
- Hasn't been done before
- Challenging to do
- Worthwhile to do
- Reasonably possible to do



R&D Pathways: Suggestions

Some ideas on what to do:

- Brainstorm plans to demonstrate feasibility within 1 year
- Generate ideas using a broad filter
- Brainstorm some useful minor challenges within your team's major challenge

Some ideas on how to do it efficiently:

- Have a team moderator and a team recorder
- Take notes electronically
- Keep your team focused
- If you're getting nowhere, move on



Review of Accepted Challenges

- Test script generation, maintenance, and evolution (9 academic + 3 industrial votes)
- Test model generation from requirements (9+2)
- Automated analysis of test results (9+3)
- Impact measurement (7+2)



Finalization of R&D Challenge Presentations: Suggestions

- Refine and filter your ideas from in Charette Session II yesterday to create your team's presentation
- Pick the best R&D pathways that you created
- Nominate a presenter for your team
- Plan for *approximately* a 5-minute presentation and a 10-minute group discussion
 - A little roughness is okay
- Review your team's challenge in the presentation
 - Give clarifying explanations if needed
- Present the R&D pathway ideas your team found
 - You might also want to show (briefly) what ideas your team eliminated, and why

