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The Software Delivery Experts

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A Software Delivery Solutions Company

Evolutionary Testing Practices to Succeed in an Agile World

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Key Evolutionary Testing Concepts

The following concepts will be covered as a part of this presentation:

- Optimizing practices
- Reducing and/or eliminating waste
- Reframing thinking about existing processes

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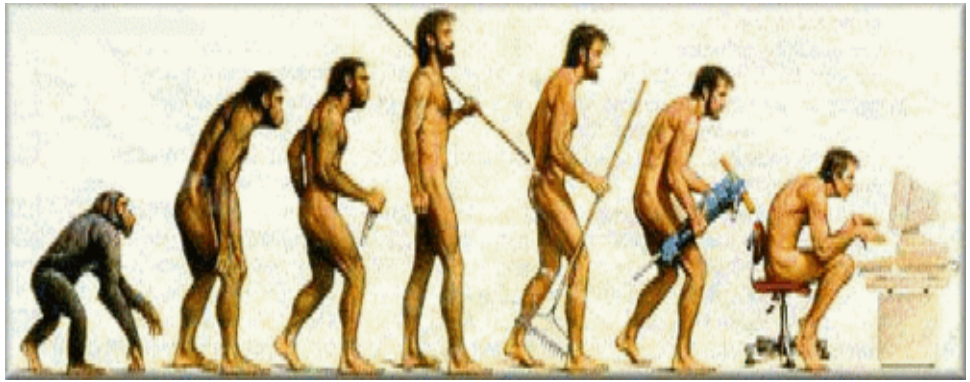
Theory of Evolution

- All life is related and has descended from a common ancestor
- Organisms evolve from more simplistic ancestors naturally over time
- Beneficial mutations are preserved and leads to adaptation



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Slowly But Surely

"Natural selection acts only by taking advantage of slight successive variations; so she can never take a great and sudden leap, but must advance by short and sure, though slow steps."

~Charles Darwin

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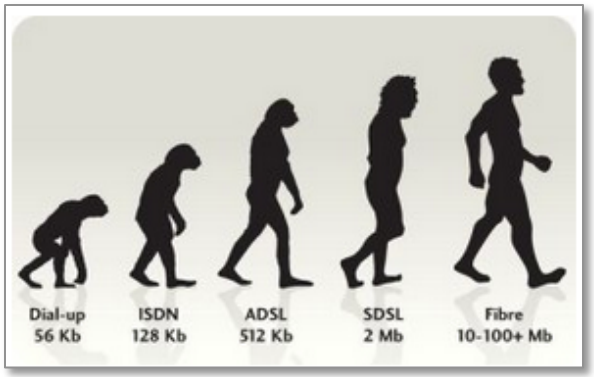
Things Naturally Evolve



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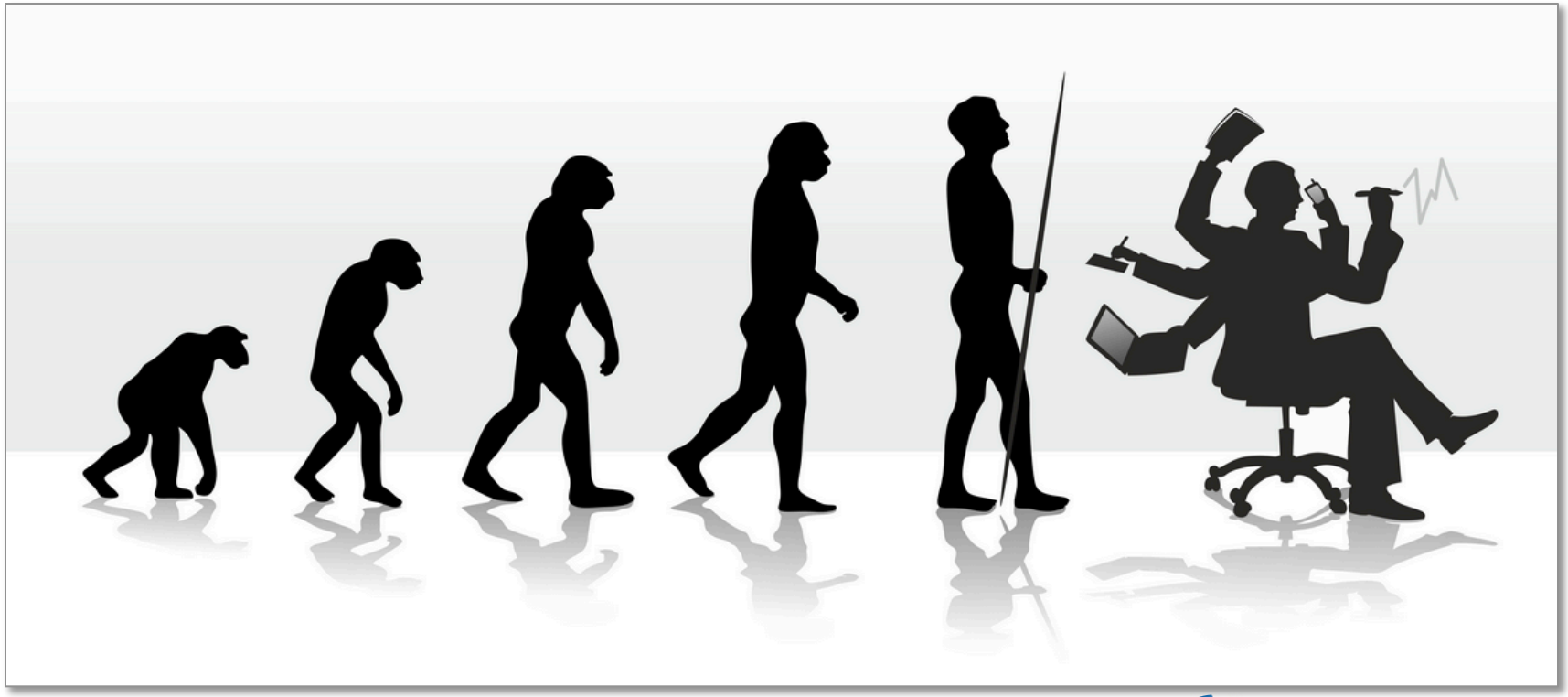
Evolutionary Testing



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Testing

"Testing, like everything else, can be either underdone or overdone."

~Bill Hetzel

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Optimizing Testing Practices

- Shift from human to machine
- Reduce Redundancy
- Update processes
- Start with known designs and evolve

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Human to Machine

- Tests repeated often should be automated
- Adaptive smoke tests are a great place to start with automation
  - Identify the smallest number of critical tests that can be run in the shortest amount of time
- Automated test suites will grow over time and as it expands dependency on manual regression will be gradually reduced

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Reducing Redundancy

- When was the last time someone in your organization reviewed your testing practices for redundant processes?
- Identify areas where more than one person is unknowingly doing the same activity
- It is important for the entire software development team(s) to have transparency into all levels of testing from unit to systems integration
- Use small incremental testing experiments to demonstrate efficiency and effectiveness of approach

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Updating Processes

- Are your processes effective and efficient?
- Are your processes truly adding value or just keeping people busy?
- Are you creating massive amounts of unnecessary documentation?
- Consider replacing outdated heavy processes with light-weight effective techniques

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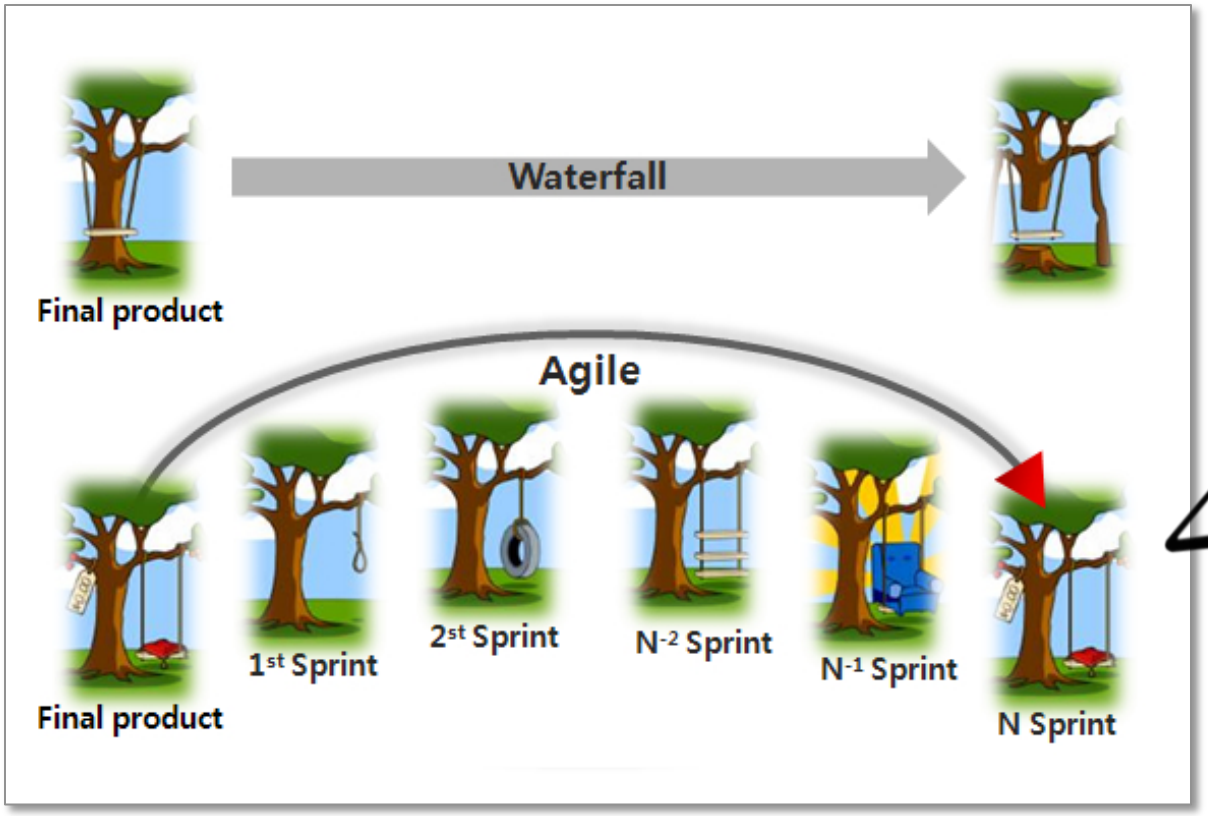
Waterfall vs. Agile



- Which outcome do you prefer?

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The Second Law of Consulting

"No matter how it looks at first, it's always a people problem."

~Gerald Weinberg

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Tools vs. People

- Tools don’t solve problems

- People solve problems

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Change is Inevitable

- Change is a part of innovation
- Innovation is a part of growth
- Growth is a part of optimization

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Change to Progress

"Change is inevitable. Progress is optional."

~Tony Robbins

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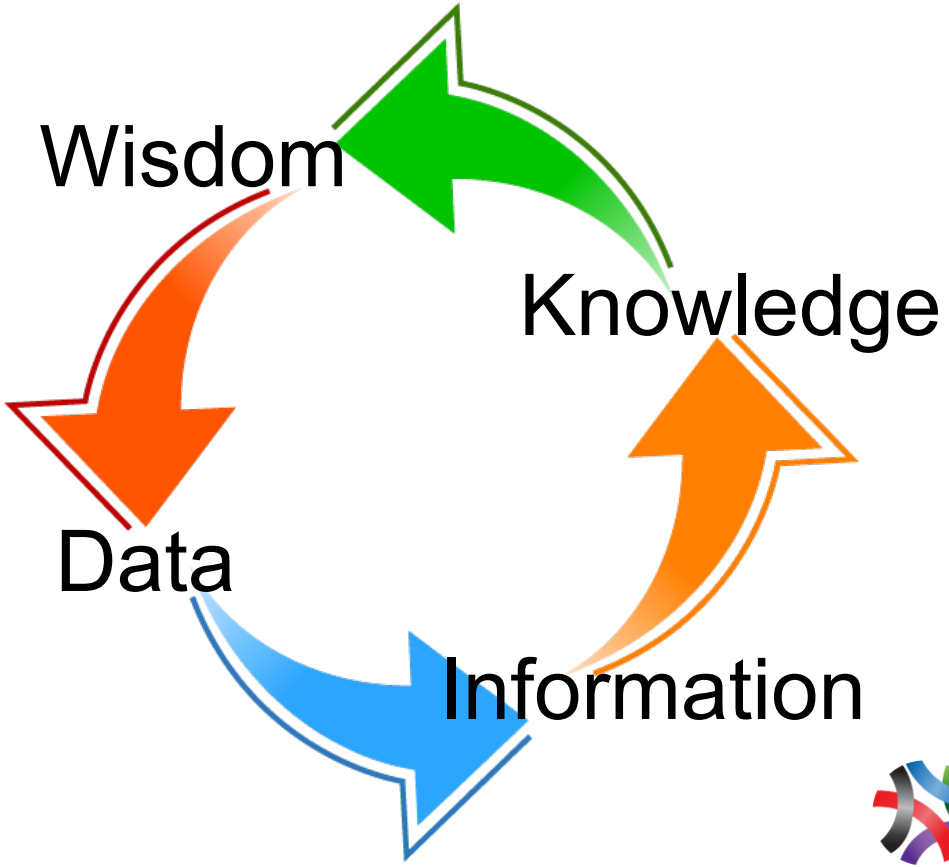
Circle of Truth



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Information to Wisdom Transformation

What do I know?

What do I need to learn?

How will I know when I've learned it?

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What is Your Organizations Biggest Challenge?

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Questions?

- Final questions or discussion?

Thank you!

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