



More on Experiments

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Attribution



Except where otherwise noted, ERSP and all associated resources were developed by Christine Alvarado, UC San Diego, Department of Computer Science and Engineering.

These slides were originally jointly developed by Christine Alvarado and Mai ElSherief. They have been adapted by Kelly Shaw for CSCI 16 at Williams College.



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Today's Plan

- Discuss “Should Computer Scientists Experiment More?”
- Discussion of future work
- Individual literature searches

Walter F. Tichy: *Should Computer Scientists Experiment More?*

Computer scientists and practitioners defend their lack of experimentation with a wide range of arguments. Some arguments suggest that experimentation is inappropriate, too difficult, useless, and even harmful. This article discusses several such arguments to illustrate the importance of experimentation for computer science.

How to Identify Future Work and Open Problems

- A paper might indicate what extensions to the work are planned.
- Consider whether some of the results were not optimal.
 - Does this indicate a possible improvement to their approach?
- Consider whether the set of inputs used is representative of the entire problem space?
 - If not, why are they not representative? What do you hypothesize would be the result of using their approach on the input set you're considering?
- Consider whether new technologies or solutions have come into existence that enable different solutions.
- Explore what questions papers that cite this work have examined.
 - Consider survey papers