Grassroots Reproducibility: Just Do It!

Tamara Munzner
University of British Columbia

Reproducible Visualization Research: How Do We Get There? VisWeek12 Panel

Reproducibility By Paper Type
- technique / algorithm: yes!
  - video documenting look/feel of interaction
  - code, data, parameters
- evaluation: user/lab studies: yes!
  - all of the above, plus
  - all experimental stimuli (images), not just a few
  - data that you gathered
  - experimental protocol/methods details

Paper Types and Reproducibility
- models, systems: maybe?...
  - highly qualitative work
  "The measure of success is not that a different visualization researcher would design the same system, it is that this particular researcher has created something useful."

Continuum of Culture
- forbidden
- unmentioned
- weakly advised
- strongly advised
- mandated
- enforced

now
soonish
eventually
never!

High Payoff: Enlightened Self-Interest
- helps you, not just community in general
  - your work will (probably) have more impact
    - citations
    - benchmarks
  - you can reproduce your own work
    - when creating images with latest algorithm for paper
    - when creating comparison images with older alg variants
    - six months after paper for new student followon work - without bothering old student
    - years after first author leaves your lab

Just Try It
- easy to change your own process incrementally
  - try something new next time
- the earlier you start, the more you can do
  - ethics approval to release user study data when project starts, long before writing paper
  - makefile-driven figure creation with documented parameter settings best when from day one
- if you go too far, back off
  - hasn’t happened yet, I only regret what I didn’t do!

Existing Mechanisms Suffice
- supplemental material
  - beyond just video!
  - code, data, parameters, stimuli,...
  - just host on your own web page for paper
    - in addition to centralized conference/journal DL
  - no need to wait for culture change
    - funders/publisher mandates