

Peer Review in Computing

Jeannette M. Wing

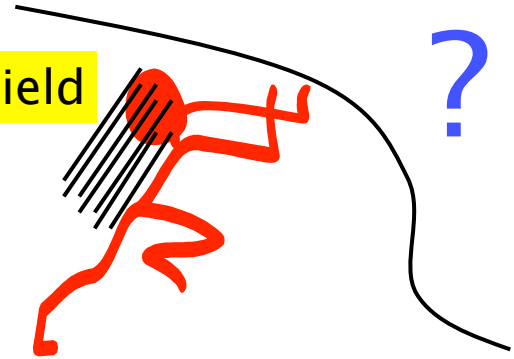
President's Professor of Computer Science
Department Head
Carnegie Mellon University

CRA Snowbird, Utah
19 July 2010

Why Peer Review Matters

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Pushing the Frontiers of a Field

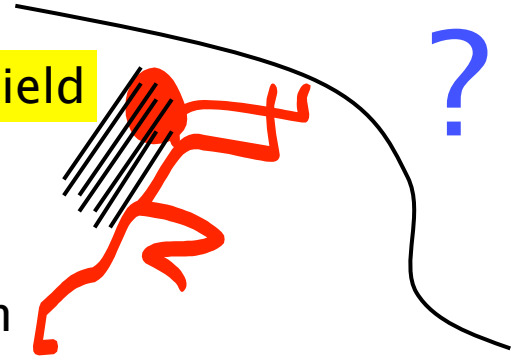


Why Peer Review Matters

Pushing the Frontiers of a Field



Excellence in Research

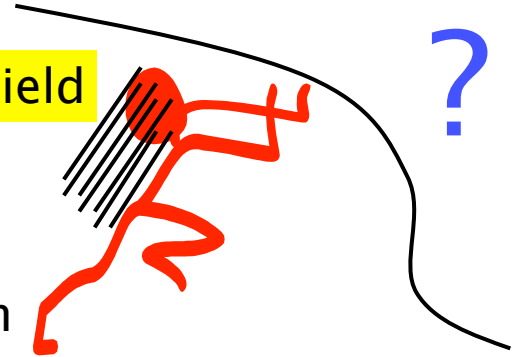


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Quality



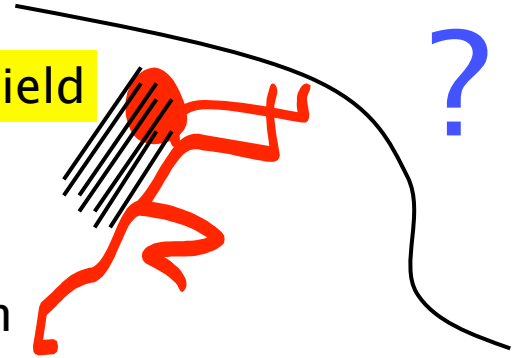
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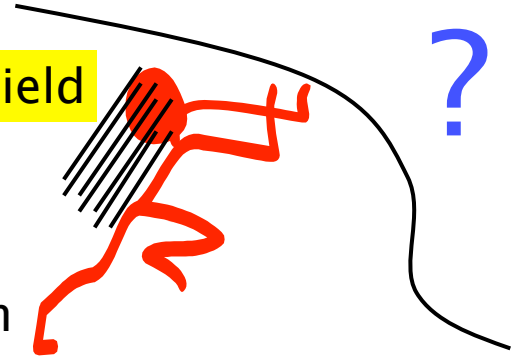
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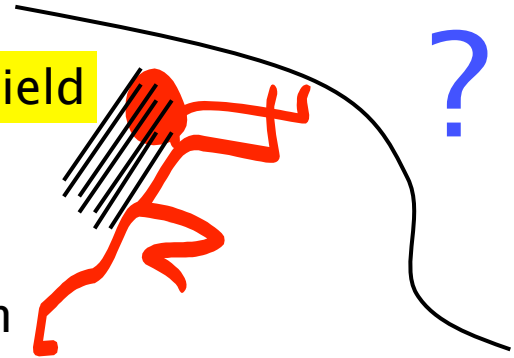
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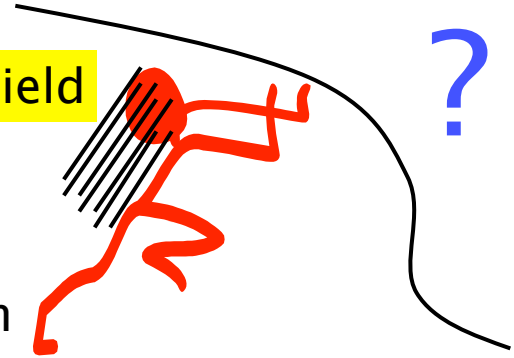
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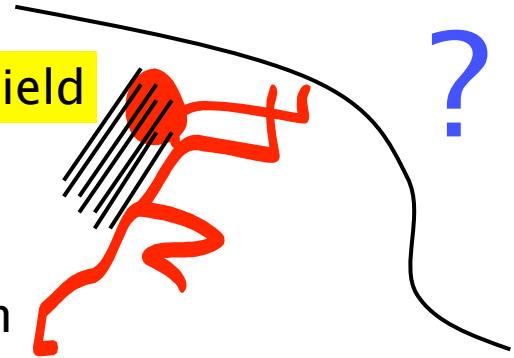
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- To discover scientific truth by building on past knowledge, by sharing results with others
 - Conference and journals document this progress
- To move the field forward, often in big ways through big ideas
 - Program committees, journal editorial boards, and funding agencies identify these ideas and the people qualified to pursue them.

However,

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We live in a world of **limited resources**

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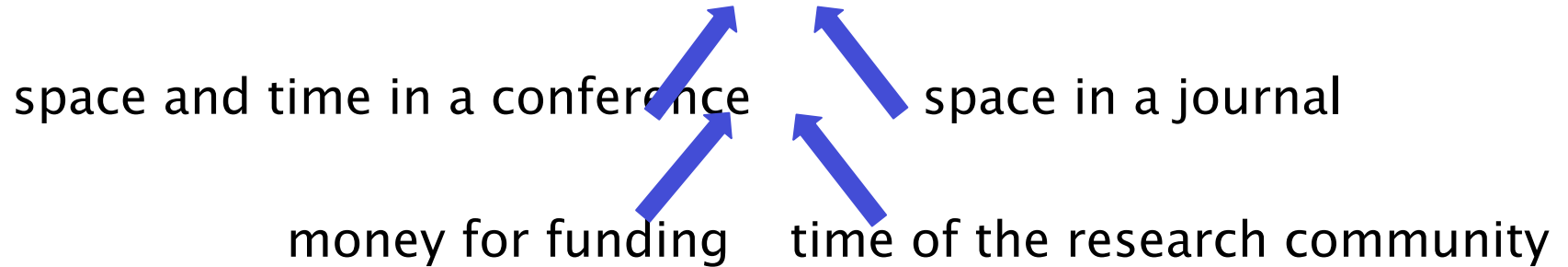
space in a journal

money for funding

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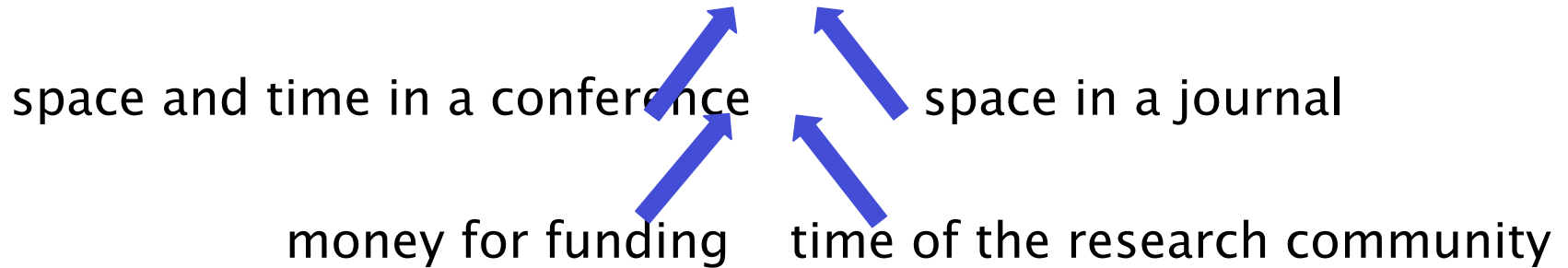
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And increasing demand for these resources

- Research community grows in number \Rightarrow lower success rate, increase in # of conferences, journals, ...
- Research community overburdened to do reviews \Rightarrow slower turnaround,

harder to find reviewers

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- We pass this value system onto the next generation

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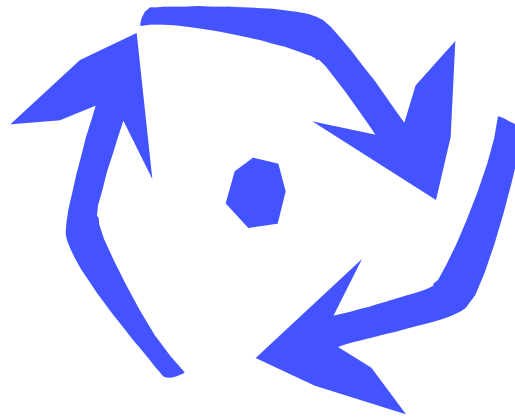
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**The Real
Problem**

Breaking the Cycle

[Wing, BLOG@CACM, August 21, 2009]



Breaking the Cycle

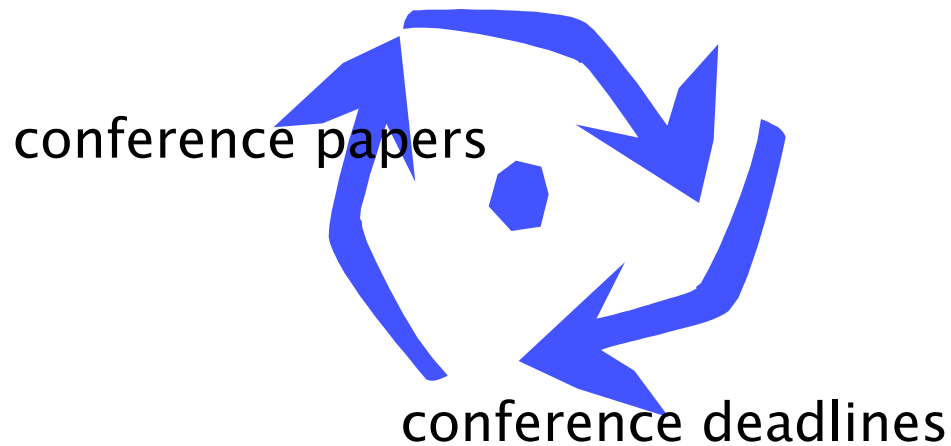
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conference deadlines

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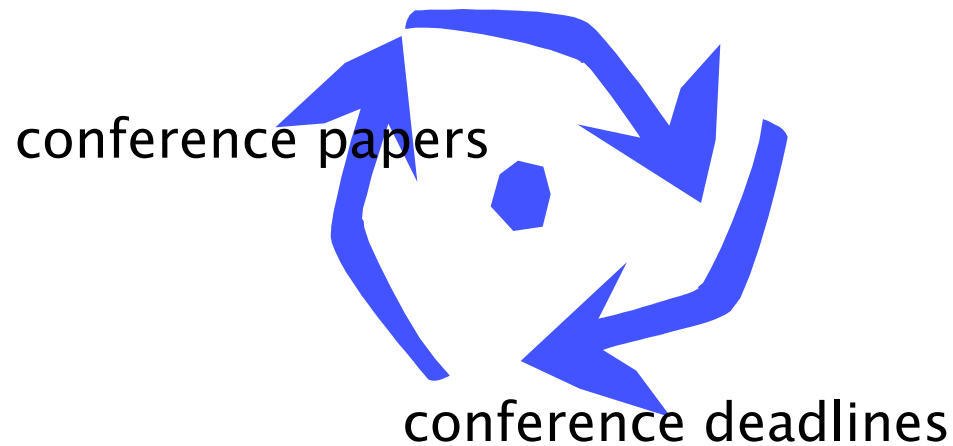
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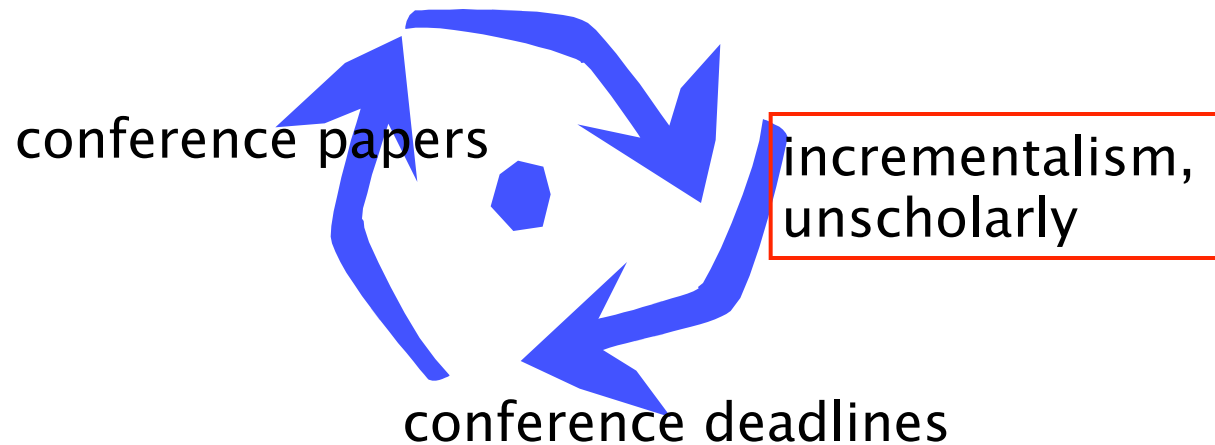
tenure and promotion



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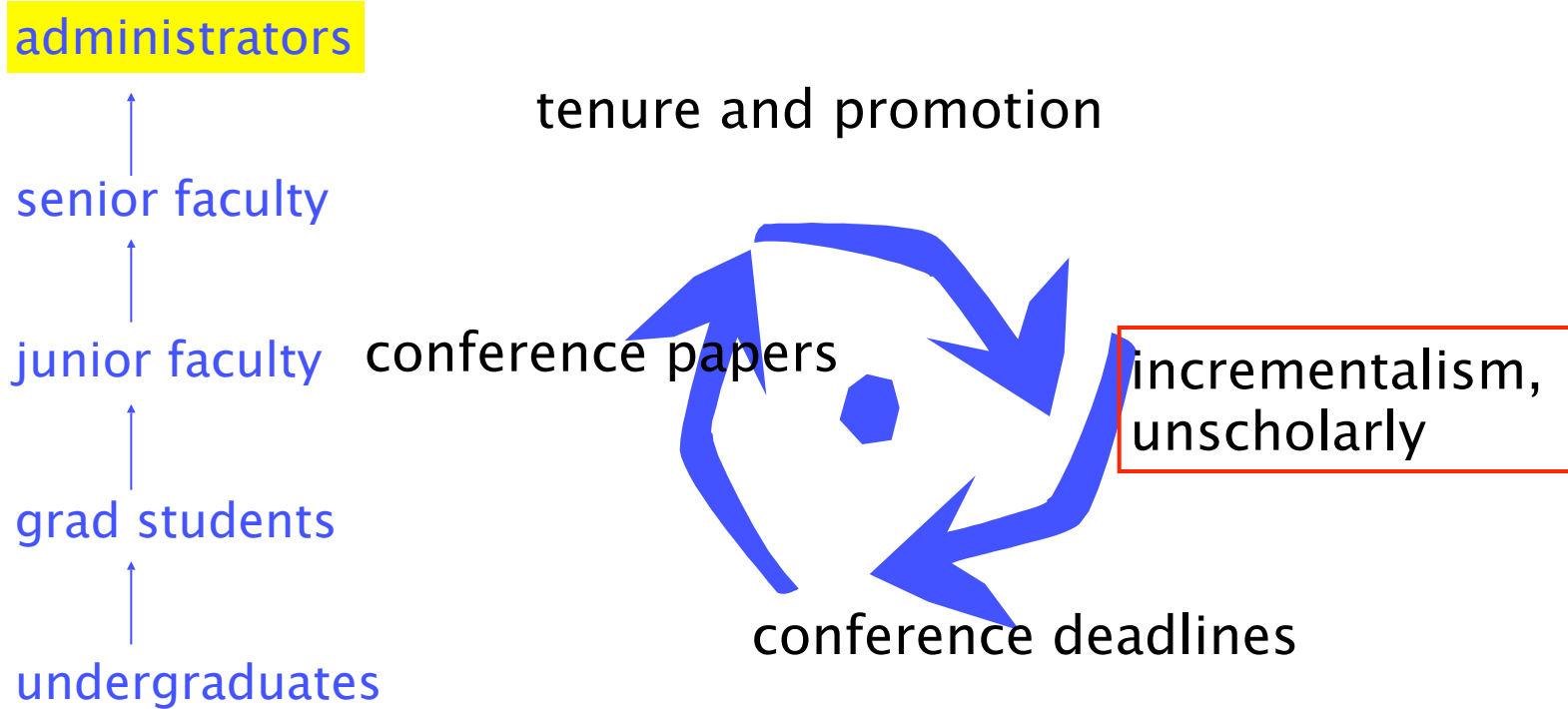
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administrators

tenure and promotion

senior faculty

junior faculty

conference papers

incrementalism,
unscholarly

grad students

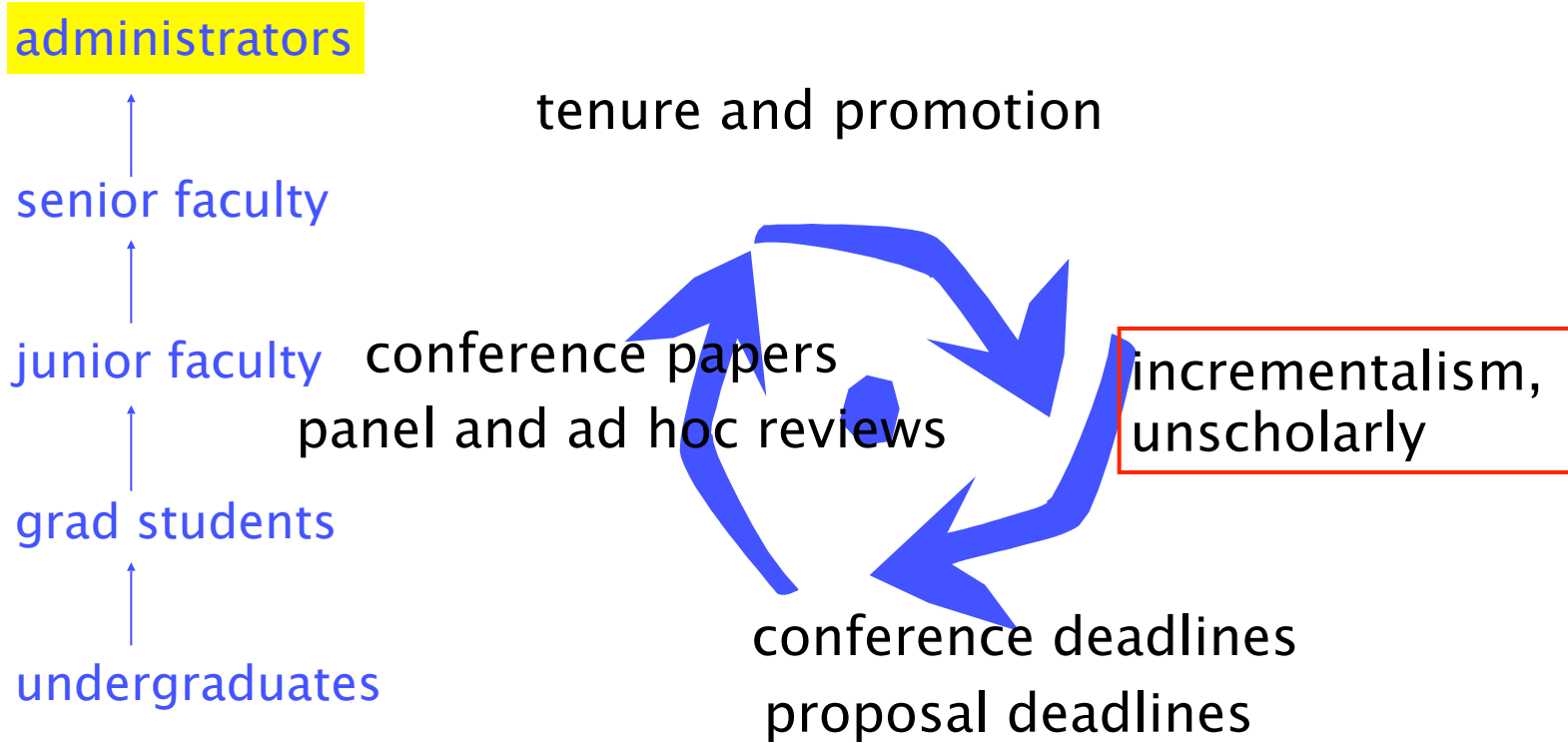
conference deadlines

undergraduates

proposal deadlines

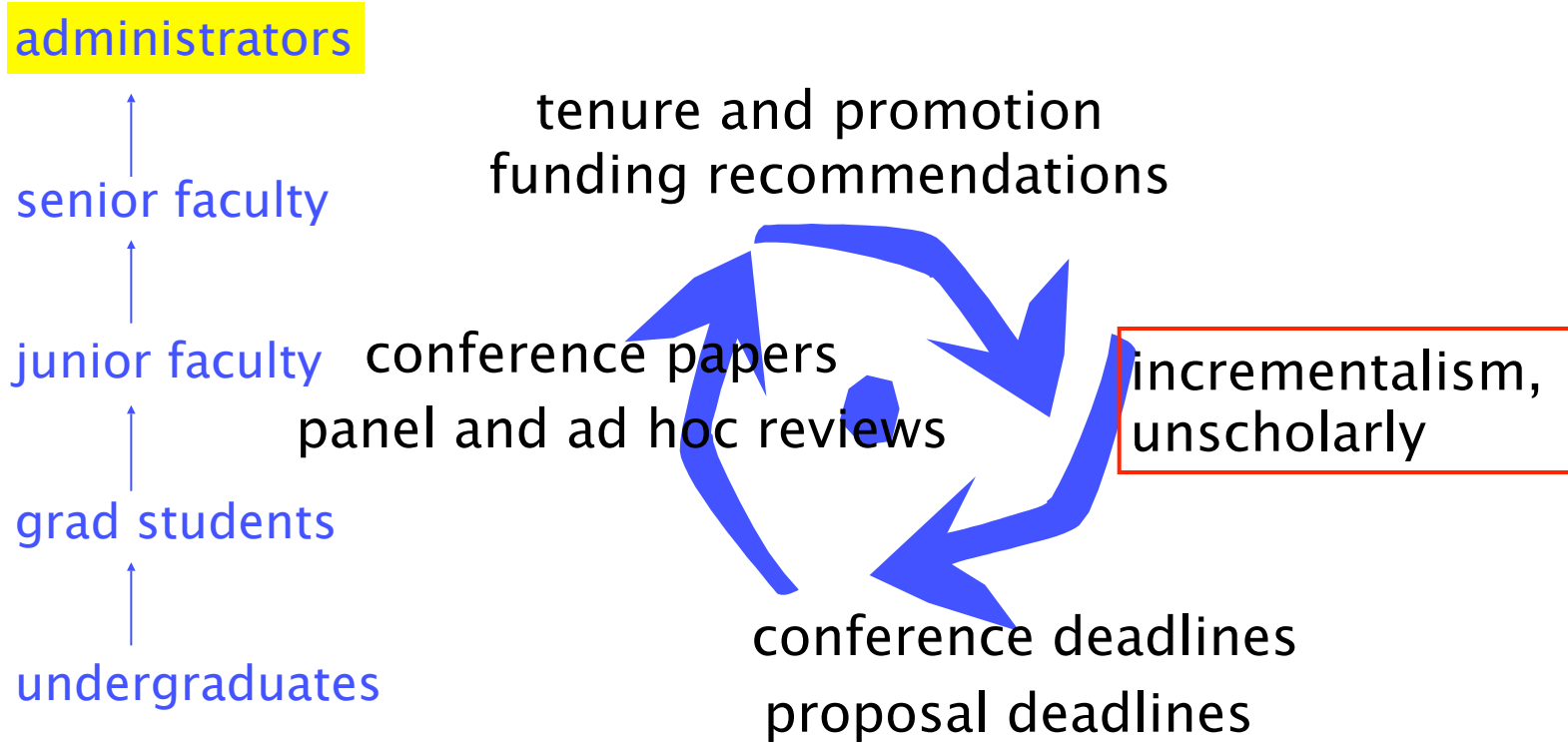
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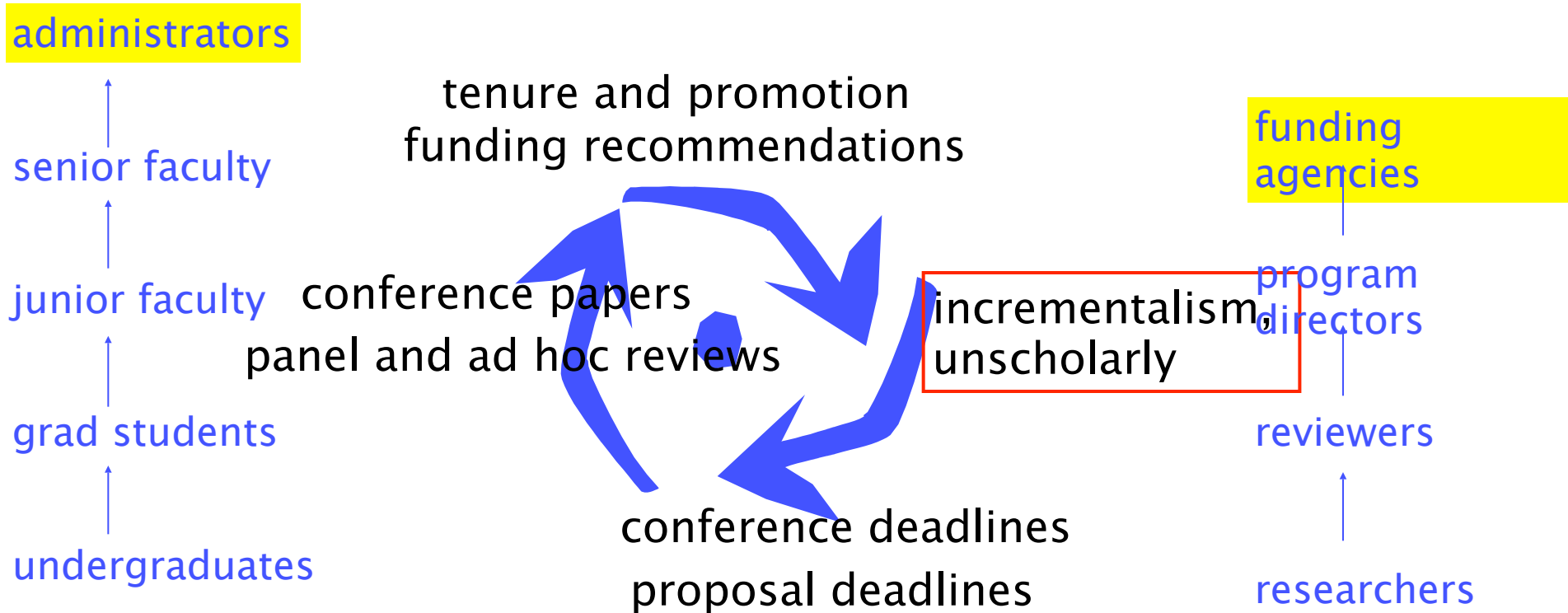
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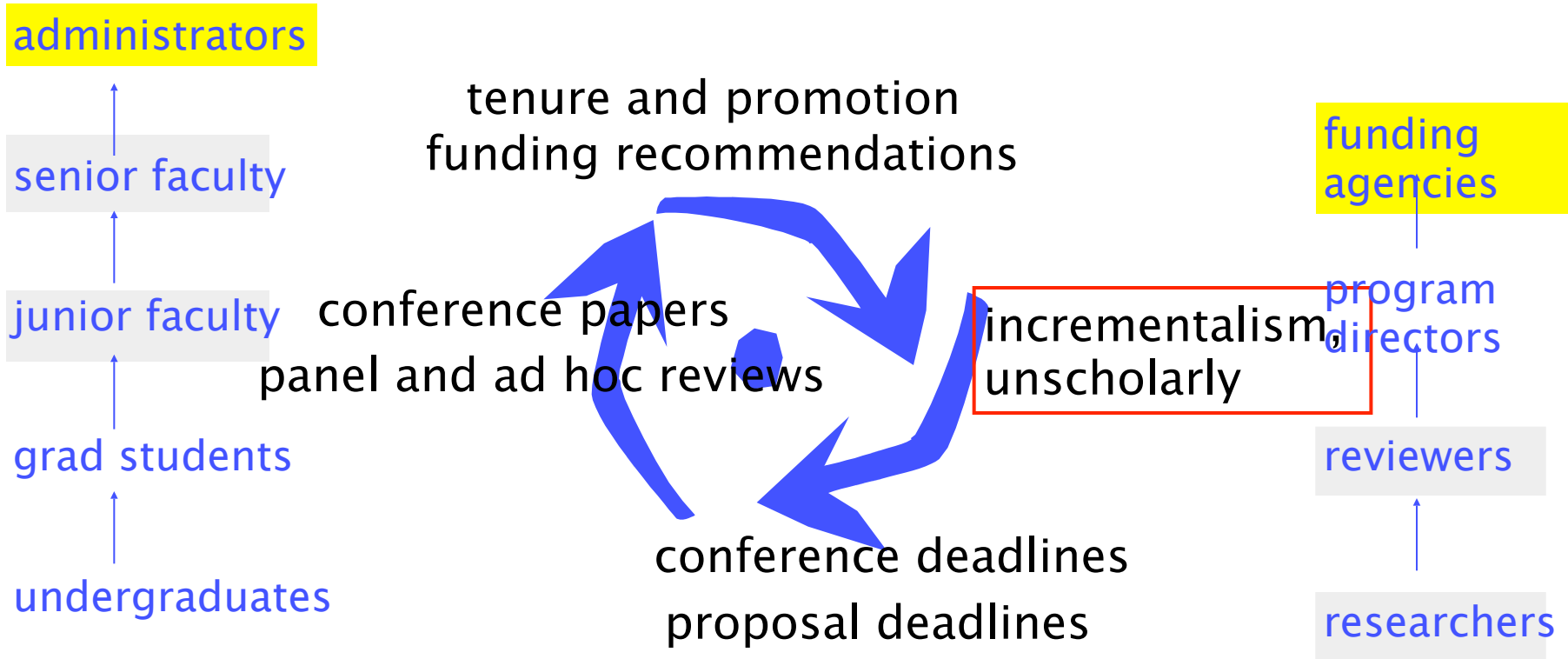
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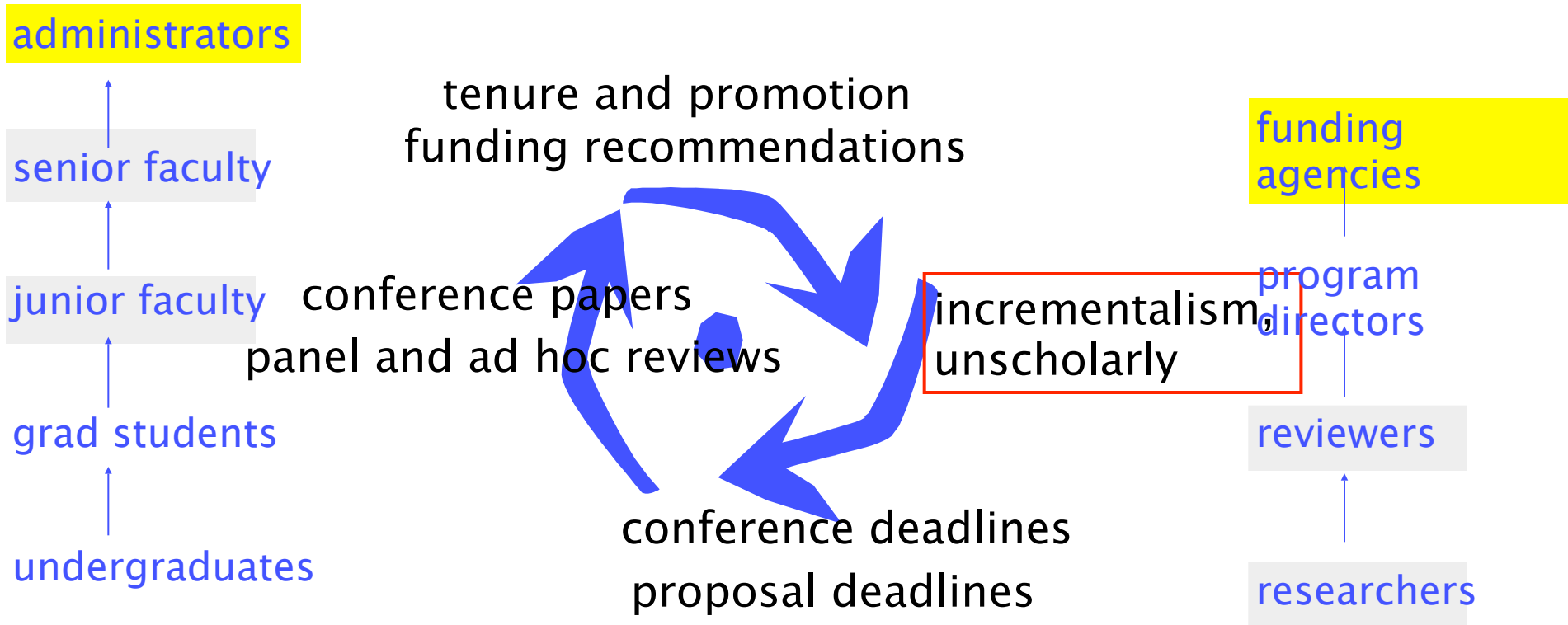
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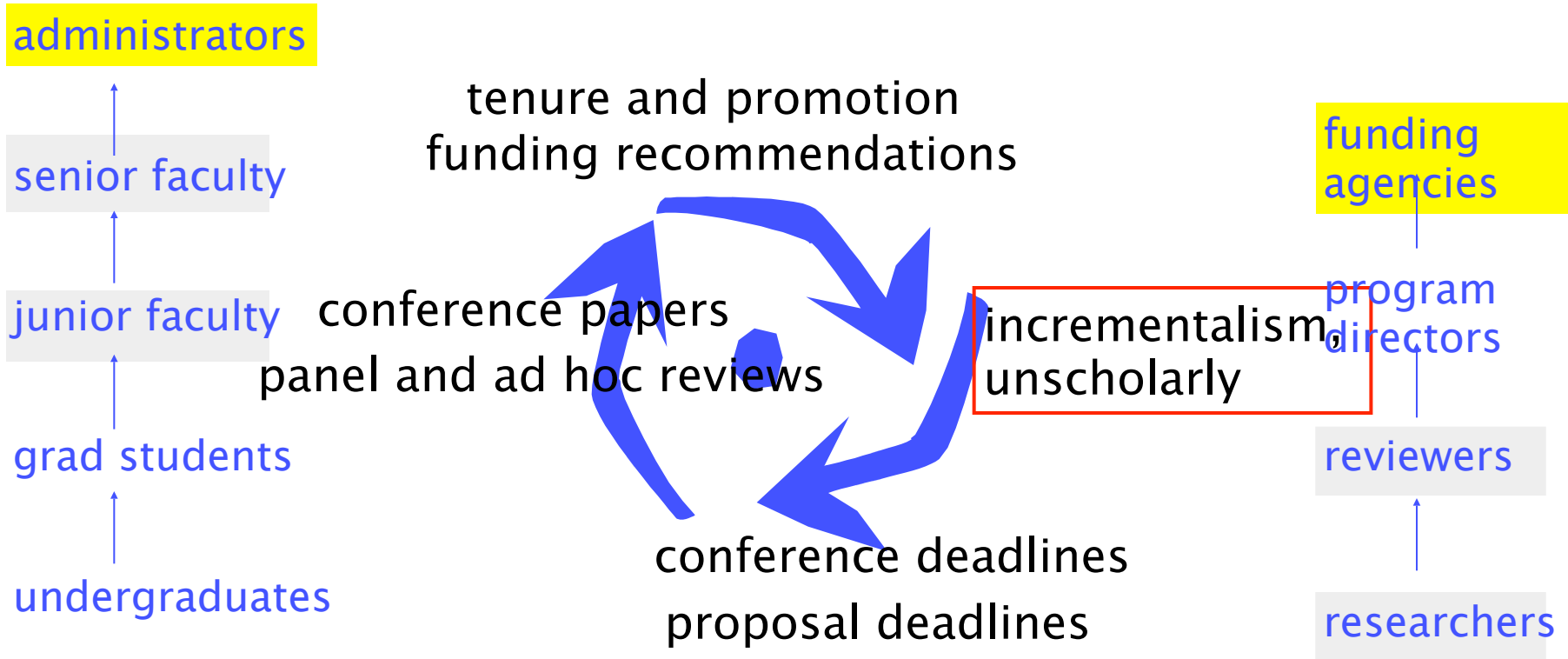
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⊘ Say "No" to dead-line driven research!

What Can We Do?

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- Attack the resource limits (but this does not Break the Cycle)
 - Increase space, e.g., have more sessions, hold parallel tracks, have poster/abstract/short papers sessions, get more money, use cyberspace, ...

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- Use our own technology in creative ways
 - Recommendation and reputation systems work for consumer products and services. Can it for scholarly work too?
 - Web service a la wikipedia (not quite the right analogy)
 - People post papers
 - People post reviews
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 - People help categorize
 - On-line journals
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- Provide incentives for experts to participate, and in a

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We need to Break the Cycle!

Thank You!