

# GOOD RESEARCH IN NETWORK THEORY

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# THERE'S NO SHORTAGE OF ANSWERS ALREADY

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- “There’s nothing more practical than good theory”
- “A good theory is like a good joke”
- “Good theory makes a difference:  
PageRank, CDMA, Dynamic alternate routing, Aloha, Packet switching...”
- “Good theory solves open problems...”
- “Good theory gives you new tools...”



# A GOOD THEORY IS LIKE ...

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- Let me add my biased thoughts





# PRUNER

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- Less is more
- Get to root of knowledge tree
- Unify the branches
- Create shared intellectual heritage





# LENSE

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- New angles to think about important concepts
- Unambiguous language to clarify discourse

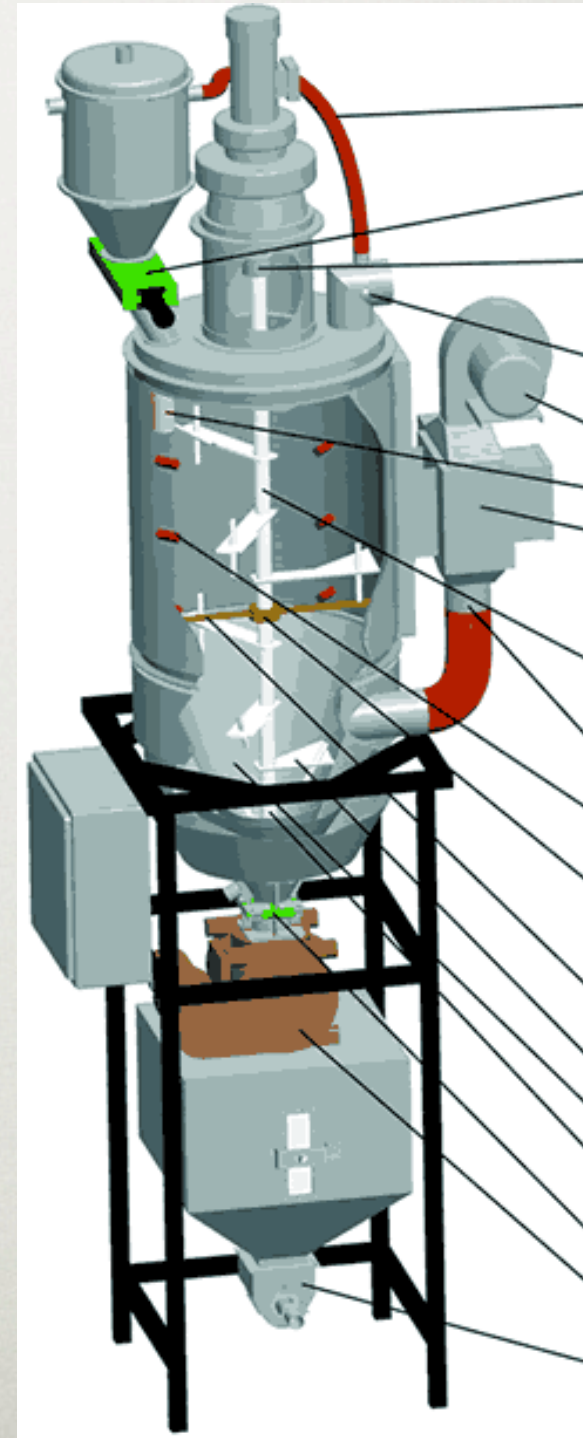




# RE-CRYSTALIZER

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- To model is to ignore (selected part of) reality
- Self-consistent theories are still incomplete
- Need to validate / falsify the predictive power
- Close the loop with data





# A BRAIN THAT LISTENS TO THE HEART

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Combine

- Rigor (in answering questions) AND
- Relevance (in asking questions)

