**Design Objectives**

- Useful feedback when access is denied
- Policy needs protection too
- Feedback based on who you are—more useful and more secure
- Improve usability for better security

**Feedback**

- Find alternate paths to True node
- Tell user what propositions need to change to allow access
- Zero or more feedback options may be available

**Cost functions**

- Improve quality of feedback
- Assign costs to edges and find cost of path
- Naive cost function: each change of unit cost
- Red edge represents changed proposition
- Cost = number of red edges in path
- Feedback has cost 1 (change role to chair)

**Meta-policy**

- Protects part of the policy
- Maintains policy confidentiality
- Example: don’t reveal TA permissions

**Future Work**

- Study cost functions
  - User-specific
  - Restrict search
  - Learning algorithms
- Meta-policy guidelines
- “KNOW why your access was denied: Regulating feedback for usable security” by Apu Kapadia, Geetanjali Sampemane, Roy H. Campbell, proceedings of ACM CCS 2004