

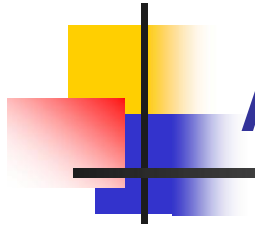
Landowner Adoption of Livestock and Range Management Innovations



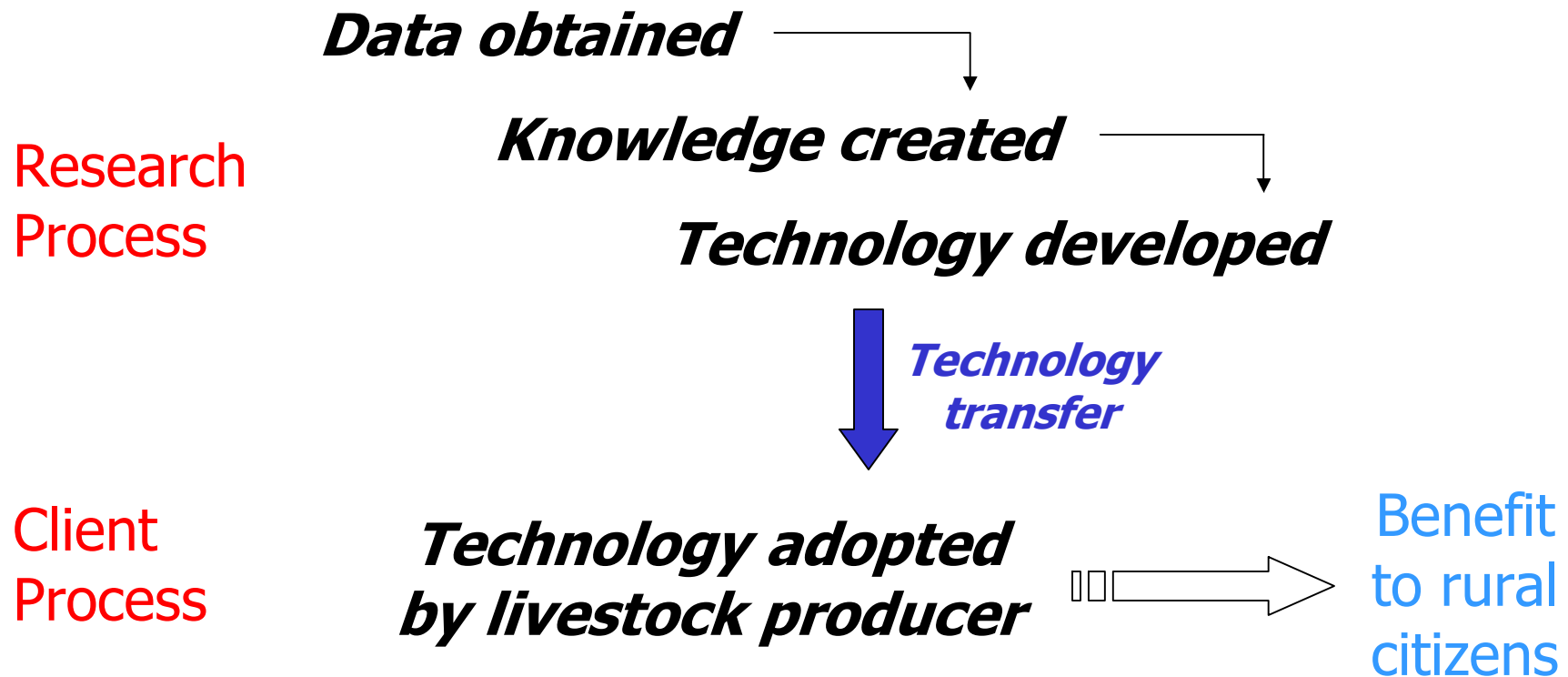
Principal investigator: **Mark Brunson**

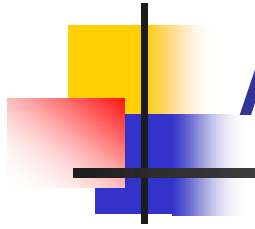
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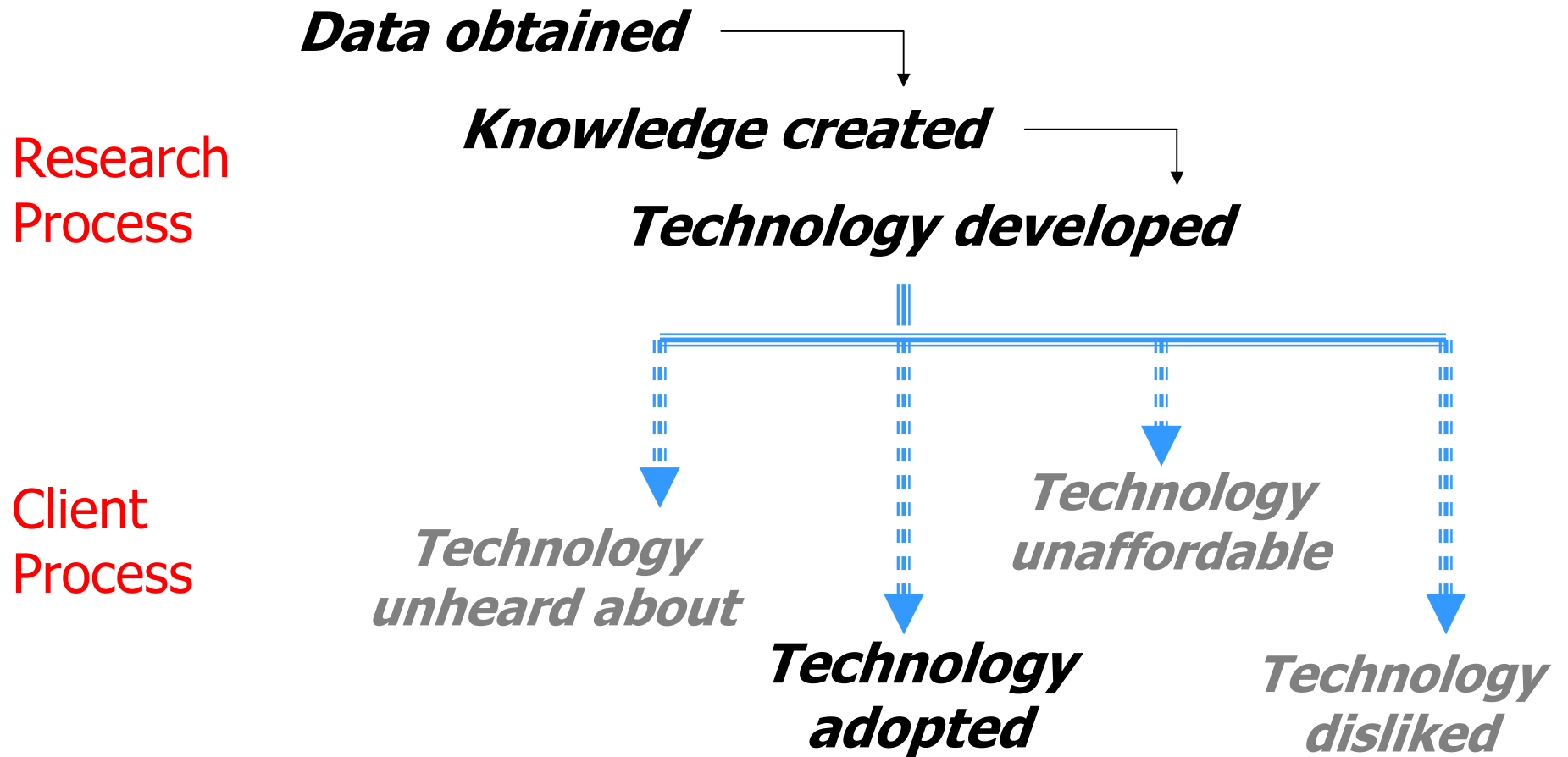


Applied research in theory





Applied research in practice



External context

Am I risk-averse?

Self: *Am I knowledgeable*

Does it fit my values?

Immediate context

Family

Other ranchers

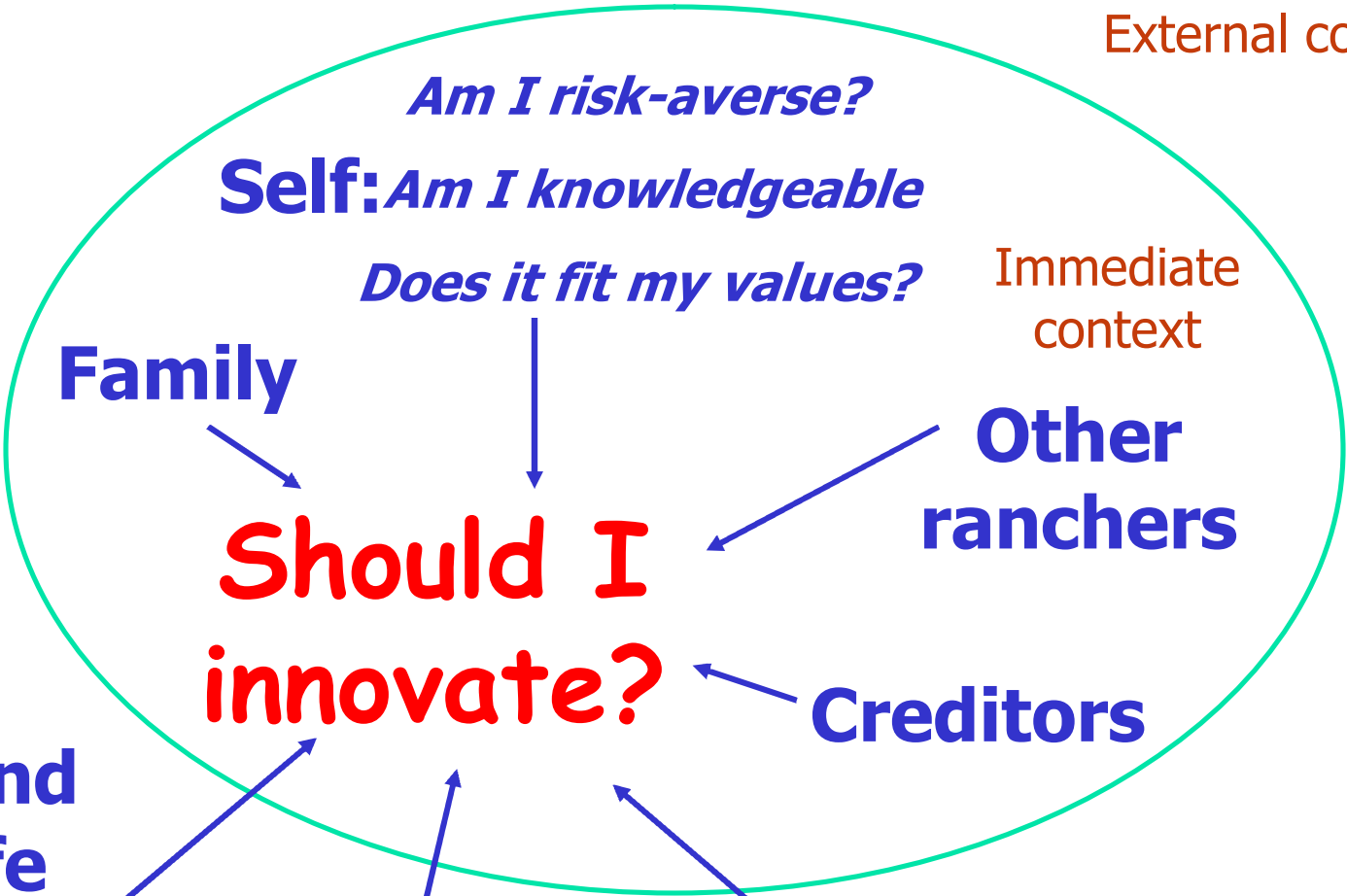
Should I innovate?

Creditors

Land and wildlife managers

General public

Potential customers





Is innovation the same as “change”?

- Livestock producers are always adapting to shifting biophysical, economic conditions
- These changes generally amount to course corrections, not choosing a new course
- *Innovation* is substantial change, intended to change the course of the operation rather than to keep it on original course



Cedar Mountain Initiative: Social science research objectives

- What research topics do livestock producers believe would be useful?
- How does the “target market” for fee hunting feel about livestock production?
- What are characteristics of innovators/early adopters in Utah ranching?
- What facilitates, impairs adoption of ranch innovations?



How did we unravel this?

- Year 1: Agenda-setting, external context
 - What innovations do producers want?
(interviews of ranch opinion leaders)
 - Are there potential customers out there?
(hunter survey about sharing land with livestock)



How did we unravel this?

- Years 2-3: Immediate context
 - What factors affect producers' decisions to adopt innovations? (*in-person surveys or interviews of ranchers and key outreach personnel*)



First-year research highlights

- Opinion leader interviews
 - Good awareness of Cedar Mountain work
 - Preferred research topics
 - Forage competition with deer/elk, gophers
 - Economic improvements (livestock, aspen, deer)
 - Predator control
 - Poisonous plants
 - Livestock diseases (esp. sheep)
 - Improvements in native forage production



First year research highlights

- Paunsaugunt hunter survey
 - Logic of study: limited-entry hunt; hunters seek “value-added” experience (fee hunting target market)
- Findings
 - Sharing land with livestock detracted from experience of 38% (35% neutral, 27% added)
 - *But* strong support for multiple-use management
 - Resource impacts (if any) usually attributed to cattle
 - Some interest in escape from OHVs



Innovator study, Phase I: Key informant interviews

- Informal interviews with Extension, NRCS & BLM range conservationists, industry group representatives
- Topics:
 - Do producers adopt?
 - What innovations do they adopt?
 - What makes someone an innovator?



Innovator study, Phase I: Key informant interviews

- Results:

- Nearly all interviewees felt innovation is rare
- Innovations observed include:
CWMU participation, management-intensive grazing, brush control, water developments
- Barriers include: tradition, pessimism about future of ranching, Utah settlement pattern, need for off-ranch income, liability, geography



Upshot of Phase I

- Abandoned idea of surveying random sample of Utah livestock producers
 - Low probability of obtaining statistically relevant random sample of innovators
 - Difficulty of obtaining usable rancher sample
- Shift to more “anthropological” method: qualitative, semi-structured interviews



Innovator study, Phase II: Qualitative interviews

- Identified 34 names of individuals said to be “innovative” by key informants
- Developed 31-question interview guide shaped by theory, Phase I results
- Interviews averaged 1 hour
- 44% of sample interviewed before achieving “saturation”



Phase II results

- Characteristics of innovators:
 - Income dependent on ranch revenues
 - Full-time, with few off-ranch obligations
 - Live on ranch rather than in town
 - Expect ranch to exist after they're gone
 - Ranch dates back several generations
 - Larger-than-usual social networks
 - "I'm not a risk-taker"

Red text = not previously in innovation-adoption literature



Phase II results (cont'd)

- Motivations for adoption:
 - Improve profitability
 - Improve stewardship of **ranch land**
 - Improved relations with govt. personnel (permit administrators, granting agencies)
 - **Demonstrate good stewardship to public**



Phase II results (cont'd)

- Barriers to adoption
 - Financial resources (capital)
 - Personnel resources (labor)
 - Attachment to tradition by ranchers, peers
 - Uncertainty about future of ranching
 - Perceived liability of public on ranch
 - Public land regulations, changes (GSENM)
 - Design of govt. programs (e.g., EQIP)



Implications

- Emphasize innovations that don't require extensive, contiguous land
- Better outreach on assistance programs
- Is fee hunting a saturated market?
- Better dissemination of innovation successes
- More interchange with other states