



# The Art of Storytelling

audience  
educational message  
information  
communication

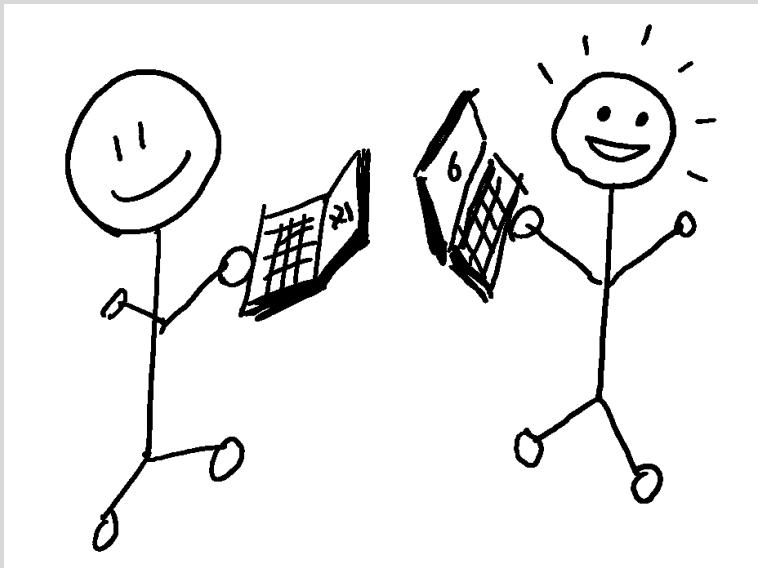
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Montana State University



# Describe your latest research project...



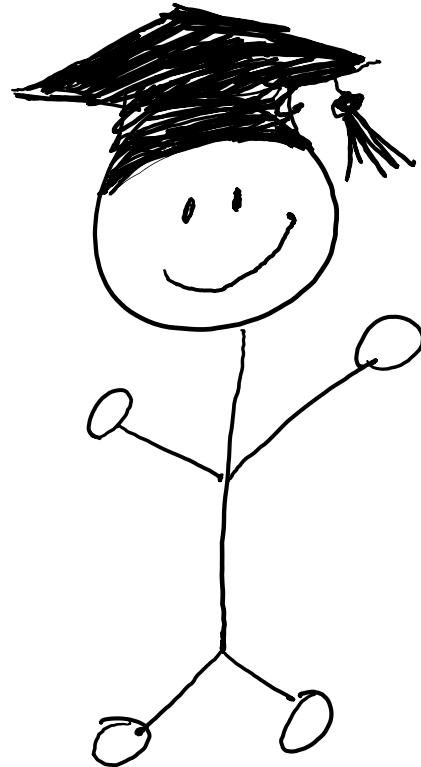
Statistician



Airplane Acquaintance

Turkish Airlines

mug device  
battery just Solid electrolyte  
hydrogen small around investigate gasses  
plus common forming cathode phases stop  
like yttria name supported batteries compound  
single tend grow need feed  
new cook next continuous securely  
Future load AA material really ceramics  
Oxide minus Now maybe issue water brittle about  
SOFCS zirconia using involves  
big more press nice behavior recipe  
ceramic resulting names novel  
power cyclic mix Essentially clamping  
environment research pet focuses  
vase conditions



# Graduate Training

coursework

presentations

research

teaching

writing

consulting

# How do we translate science for the public?



Physics



Engineering



Math Sciences



Earth Sciences



Library Sciences



Education



Author & Actor

# Three Elements of Communication

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- Storytelling
- Delivery
- Improvisation

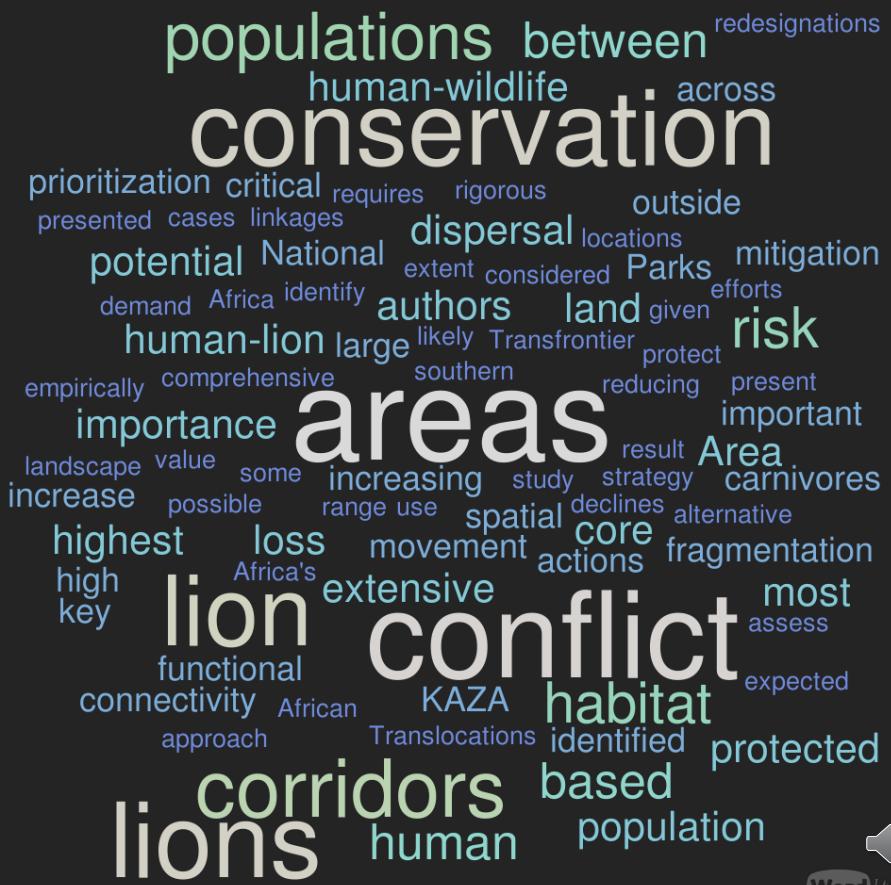
“The Story...Matters, Not Just the Ending”

--Paul Lockhart

# Storytelling

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- Break away from the norm
  - Suspense! Surprise!
- Clear structure and purpose: So what?
- Clarity and focus: What is the take-away message?



areas important development  
researchers agricultural population  
conflict conflicts  
movements colleagues  
protect like land  
people habitat high movie  
move



# Lion Podcasts

Africa's human population is expected to increase threefold by the end of this century and growth is expected to be highest near protected areas....

*Accelerating declines of carnivores as a result of human-carnivore conflict and habitat loss are likely.*

The movie the lion king has been captivating audiences since 1994. ... Many people dream of visiting Africa and seeing lions in their natural habitat.

However, *people may be the bigger threat that lions face.*

# Storytelling

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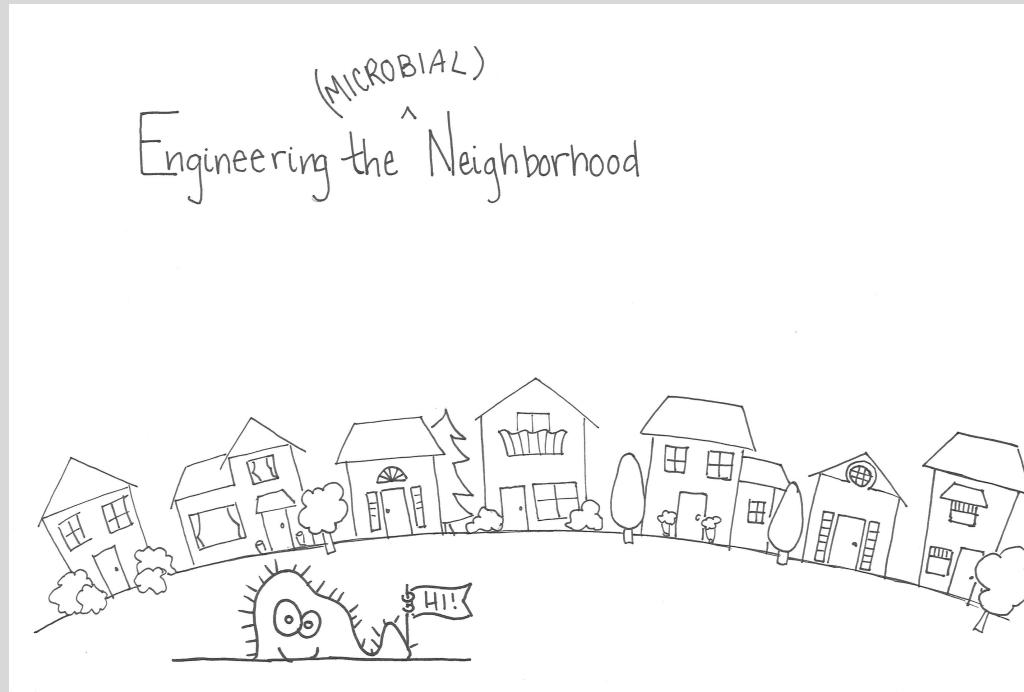
- Break away from the norm
  - Suspense! Surprise!
- Clear structure and purpose: So what?
- Clarity and focus: What is the take-away message?
- Analogy and metaphor

# Lion Podcasts

[G]rowth is expected to be highest near protected areas.

The fastest growing areas in Africa are along the borders of protected areas. *This would be like the US having major human development occurring around Yellowstone and Yosemite national parks as opposed to around metropolitan areas.*

# Microbial Communities



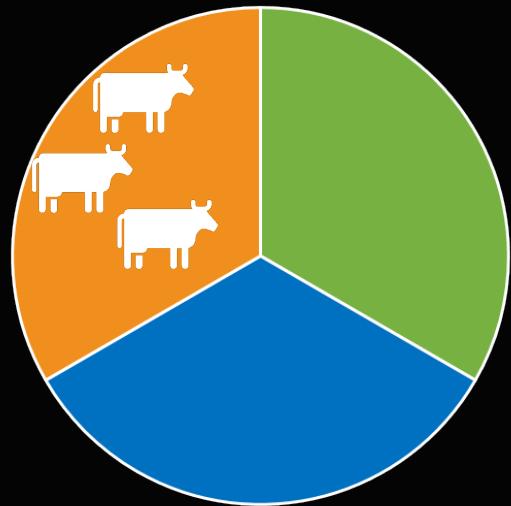
However, I only have to say,  
***"You're from Montana, you ride a  
horse to school, right?"***

for you to see just how much we  
might miss by drawing conclusions  
about individuals by only looking  
at the community.

# “It’s All in the Delivery”

- Animate with voice  
- Nonverbal communication
- Visuals

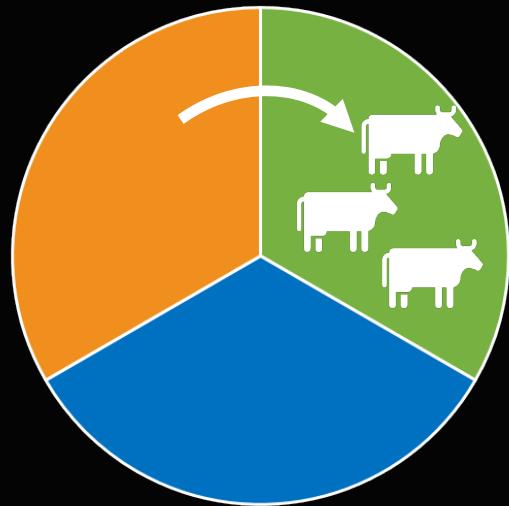
# Hormay rest-rotation



Year 1

- Grazed during growing season
- Grazed post-growing season
- Rested

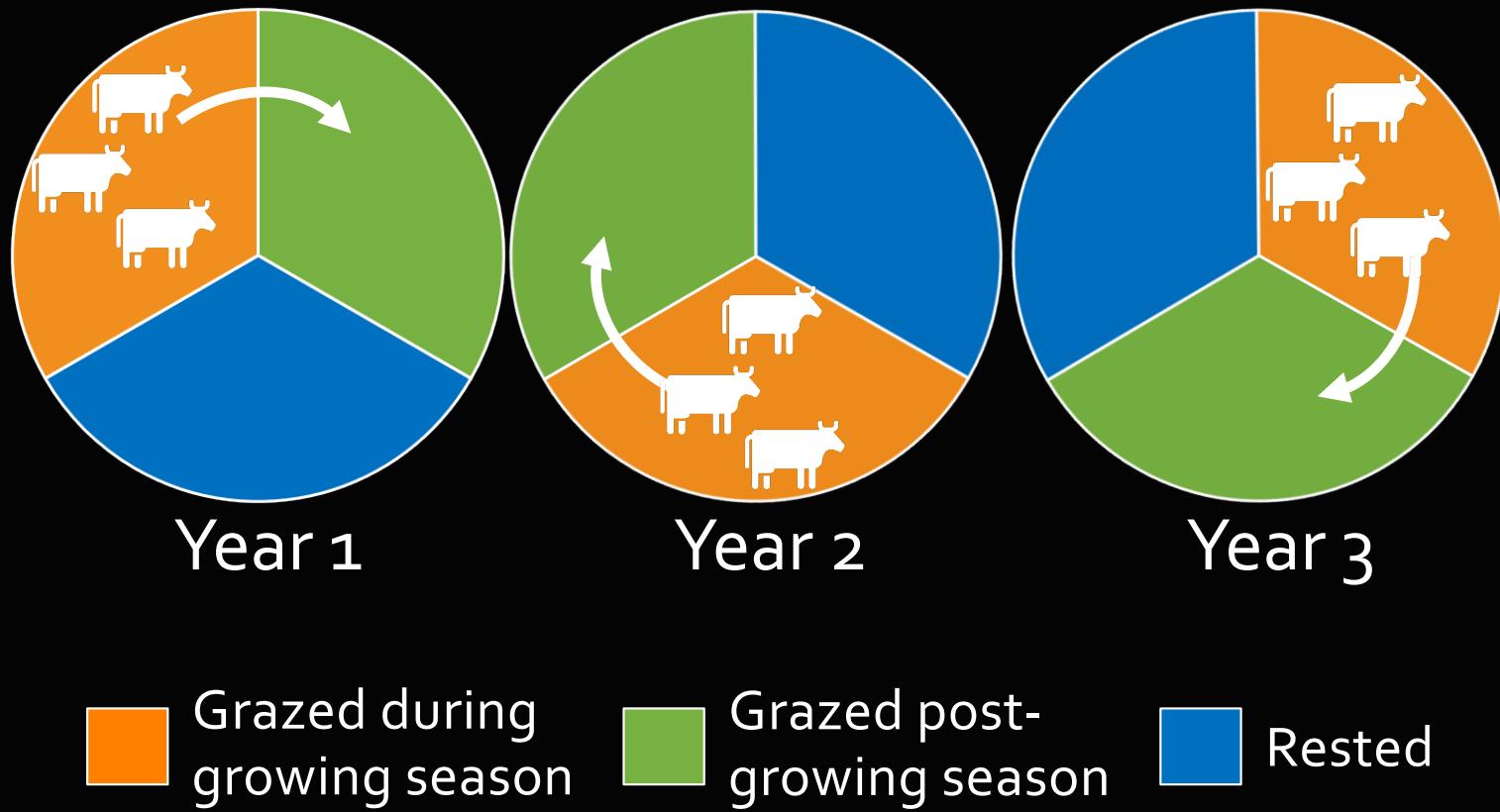
# Hormay rest-rotation



Year 1

- Grazed during growing season
- Grazed post-growing season
- Rested

# Hormay rest-rotation





# “All the World’s a Stage”

--Shakespeare



# Improvisation

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- Normalize stress and vulnerability
- Build confidence
- Actively listen and adapt to audience
- Develop stage presence

# Take-Aways

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- Broader impacts apply to *anyone*
- Faculty benefits
  - “Yes, **AND**” vs. “Yes, **BUT**”
  - Slides + Words
  - Ongoing



# Questions?

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