### Integrating Drawdown Actions in a Climate Change Massive Open Online Course



CLEAN Call, 12/3/2019 Anne Armstrong (<u>aka67@cornell.edu</u>) Dr. Yue Li (<u>yueli@cornell.edu</u>)

### Today's call:

- 1) Course updates (Annie)
  - a) Design changes
  - b) Participation
  - c) Action focus
- 2) Research Updates (Yue)
  - a) Brief intro to social norms
  - b) Climate Course Social norms experiment

### About the Civic Ecology Lab

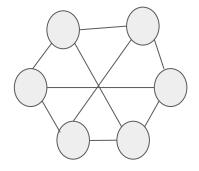


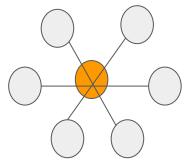


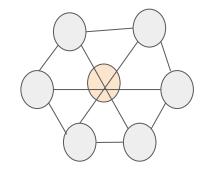


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### **MOOC Approaches**





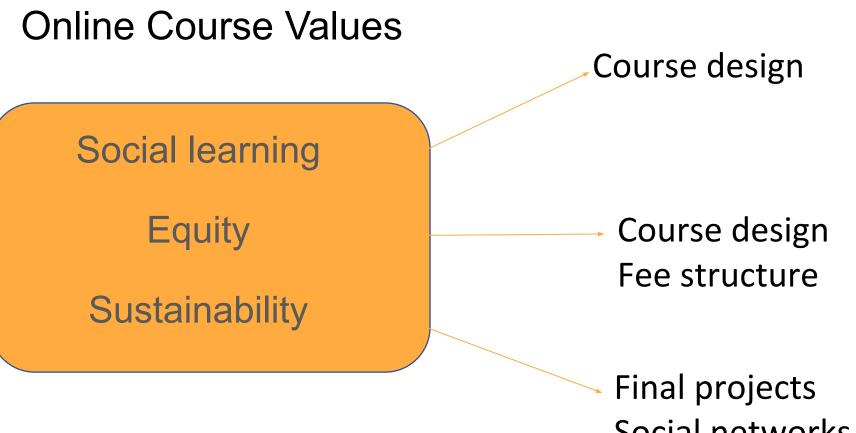


Connectivist MOOCs

xMOOCs

Our Approach, the Social Learning MOOC

Krasny, M. E., DuBois, B., Adameit, M., Atiogbe, R., Alfakihuddin, M. L. B., Bold-erdene, T., ... & Shian-Yun, L. (2018). Small Groups in a Social Learning MOOC (sIMOOC): Strategies for Fostering Learning and Knowledge Creation. *Online Learning*, 22(2), 119-139.



Social networks

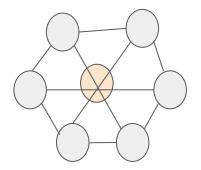
### Some Factors Motivating Our Approach

- Closing the online course "global achievement gap"
- Participant-participant and participant-instructor connections --> intent to join professional networks
- Social support can assist participants in overcoming access barriers
- Wicked problems require global engagement

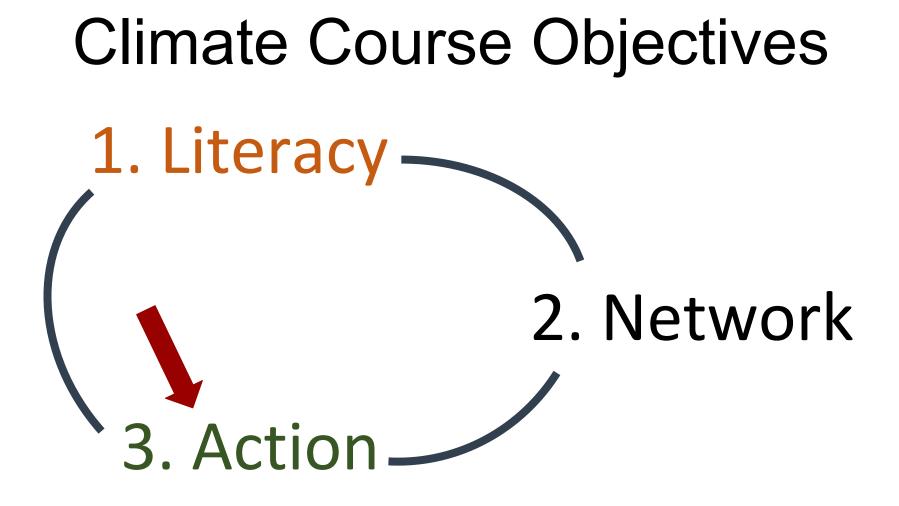
Kizilcec, R. F., Saltarelli, A. J., Reich, J., & Cohen, G. L. (2017). Closing global achievement gaps in MOOCs. *Science*, *355*(6322), 251-252.

Krasny, M. E., et al., (2018). Small Groups in a Social Learning MOOC (sIMOOC): Strategies for Fostering Learning and Knowledge Creation. *Online Learning*, *22*(2), 119-139.

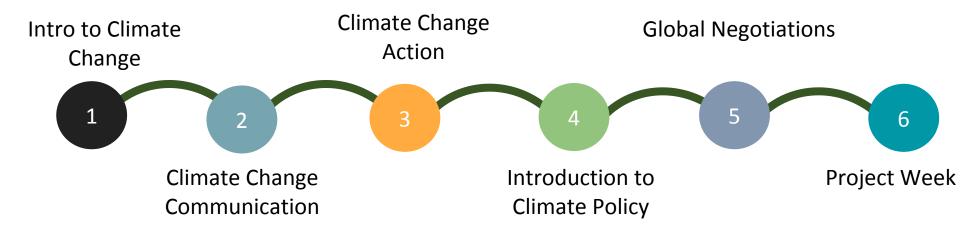
Li, Y., Krasny, M., & Russ, A. (2016). Interactive learning in an urban environmental education online course. *Environmental Education Research*, 22(1), 111-128.

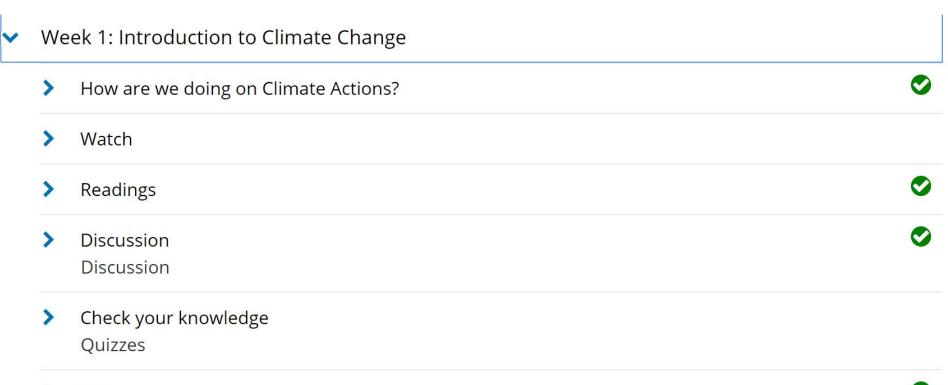


## Completion 837 participants from over 60 countries have earned certificates.



# **Course Topics**



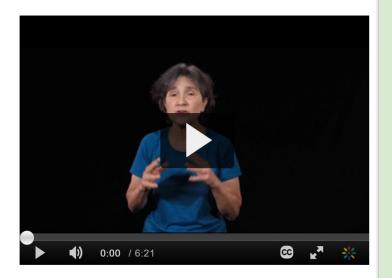




#### Introduction to Drawdown

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If you're taking this course, it is likely that you are lookir Krasny introduces the organization Drawdown, which h

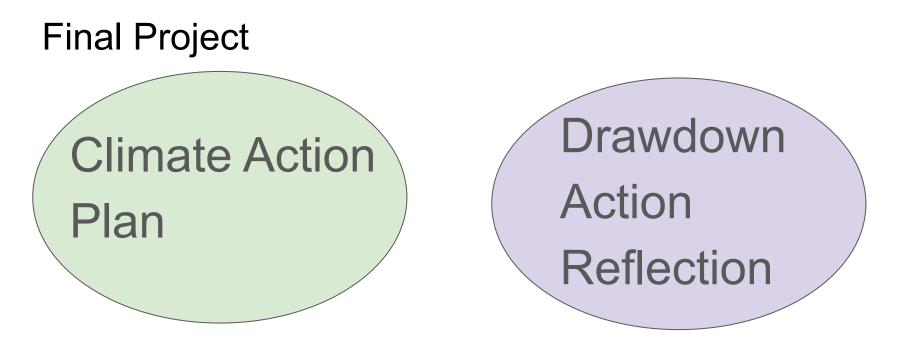


Chinese Subtitles

Choose a Drawdown action from Project Drawdown (one of our required readings this week).

- Which action did you choose and why?
- What barriers do you foresee to taking this action?
- What resources do you have that you can use to take this action?

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https://drive.google.com/file/d/1DzoMobs5jntebGL00VHQjZJ-dcnXBeMI/view?usp =sharing



Course lectures now available on YouTube:

https://www.youtube.com/channel/UCNfi3e\_b03vo5zBttcLpFEQ

Not clear whether we'll offer again or in what format!

### Research

#### **Online Courses Learning Outcomes** Interventions **Normative messages** i 📶 💟 Knowledge Practice (co)-creation **Study groups** Intercultural Network Competence $\overline{\mathbf{\cdot}}$

### **Climate Change Online Course**

#### Take the course



#### **Take climate action**



Plant-rich diet Photo credit: Alex Russ



**Descriptive norms:** What most others do



### Injunctive norms: What most others approve or disapprove

### Dynamic norms: What most others change over time

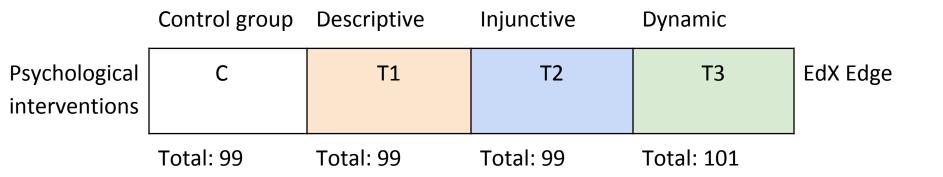
(Cialdini, Reno & Kallgren, 1990; Sparkman & Walton, 2017; Sparkman & Walton, 2019)





### How normative messages in a climate change online course influence participants' learning and climate actions?

#### **Study Design** Control and treatment groups



#### **Study Design** Climate Actions Survey

In the last 7 days, which of these climate actions did you take, if any?

I didn't take any.	Ridesharing
Plant rich diet	Reduced food waste
Afforestation	LED Lighting (household)
Mass transit	Water saving (household)
Household recycling	Composting
Other, please describe:	

How many climate actions do you think each course participant should take in a week?

Enter a number: 0 or higher.

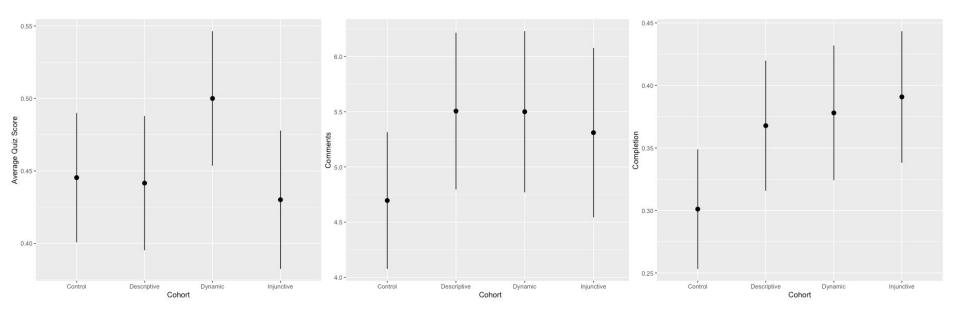
#### Study Design Norm treatment

In the last 7 days, which of these climate actions did you take, if any?



How many climate actions do you think each course participant should take in a week? Enter a number: 0 or higher.

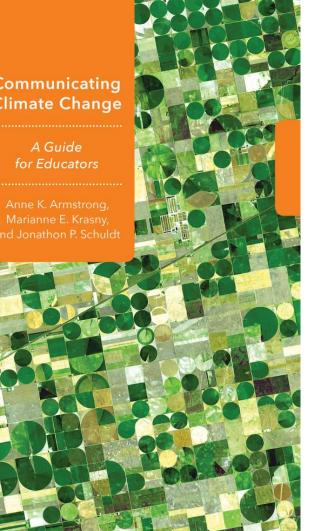
### Preliminary results Learning





### **Climate actions?**



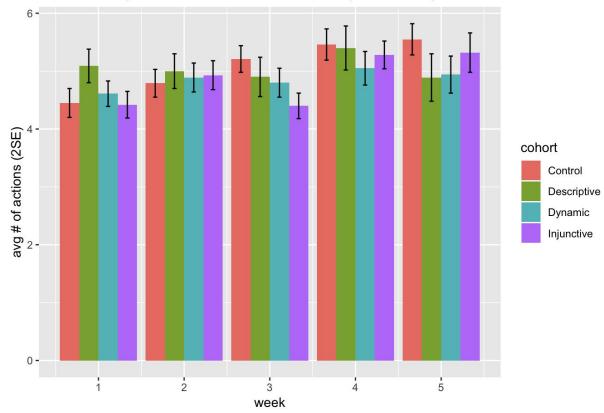


### Thank you!

### Email: aka67@cornell.edu

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#### **CC** All responses: 833



In the last 7 days, which of these climate actions did you take, if any?

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**CC** Only participants who took all surveys: 243

Participants in dynamic cohort took significantly less actions than participants in other cohorts.

