Cornell Climate Online Fellows (CCOF)

Marianne Krasny
Civic Ecology Lab, Cornell University
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www.civicecology.org  mek2@cornell.edu
CCOF Spring 2019
630 applicants
33 fellows, 24 countries
CCOF Spring 19

Gail Woon is a marine biologist who hails from Freeport in the Bahamas. Since founding an Environmental Education NGO, EARTH CARE in 1988, Gail has motivated hundreds of volunteers who work with teachers, students, and the wider public to bring awareness to local and global environmental issues—including climate change. EARTH CARE Ecokids enables students to meet with volunteers on the weekends and learn about environmental conservation.

Omer Al-Shareqi is a Master's student in political science at Sana'a University in Yemen and working as a researcher and country expert for the Varieties of Democracy Institute. Omer earned a bachelor's degree in political science from Sana'a University. He has also earned academic credits in "Islam, Diversity and Peacebuilding" from the Citizenship and Diversity Management Institute of Adyan Foundation in Lebanon, and a Master's degree in "Islamic and Peacebuilding in Yemen." He also teaches at Adyan University and trains teachers, students, and community leaders in peacebuilding and conflict resolution.

Michael Adetunji Nunayon Ahove holds a PhD in Environmental Education with a concentration in climate change. He teaches graduate courses and conducts research on the environment and climate change at the Center for Environmental Studies and Sustainable Development, Lagos State University, Nigeria. He often gives invited presentations for government and environmental NGOs on the environment and climate change.
CCOF Fall 2019
588 applicants
39 fellows, 32 countries
(13 Cornell students in separate course)
Today’s webinar

• Why Cornell Climate Online Fellows (CCOF)?

• CCOF goal and topics covered

• Technology and format (?)

• Suggestions/Questions
1. Why Cornell Climate Online Fellows (CCOF)?
Global Warming of 1.5°C

An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.
1. Reduce energy use
2. Change the way you think about transportation
3. Insulate your home
4. Make every drop of water count
5. Cool wash and hang to dry
6. High efficiency appliances
7. Switch to "green power"
8. Recycle
9. Repurpose
10. Make plants your new best friend
Global Warming of 1.5°C

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Global Warming of 1.5°C

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Political action

https://grist.org/article/youth-led-climate-protests-sweep-across-europe/
We all have networks
Scale up action through networks

Evenesis

In-person networks

Evenesis
Scale up action through networks

Online networks
Why CCOF?

Because we can all scale up our individual behaviors through our networks
2. CCOF Goal and Topics Covered
CCOF Goal

To support a global cohort of professionals and university students as they choose and conduct a Drawdown climate action, and engage their network in taking that action.
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic/Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>9/10-9/16</td>
</tr>
<tr>
<td>2.</td>
<td>9/17-9/23</td>
</tr>
<tr>
<td>3.</td>
<td>9/24-9/30</td>
</tr>
<tr>
<td>4.</td>
<td>10/1-10/7</td>
</tr>
<tr>
<td>5.</td>
<td>10/8-10/14</td>
</tr>
<tr>
<td>6.</td>
<td>10/15-10/21</td>
</tr>
<tr>
<td>7.</td>
<td>10/22-10/28</td>
</tr>
<tr>
<td>8.</td>
<td>10/29-11/4</td>
</tr>
<tr>
<td>9.</td>
<td>11/5-11/11</td>
</tr>
<tr>
<td>10.</td>
<td>11/12-11/18</td>
</tr>
<tr>
<td>11.</td>
<td>11/19-11/25</td>
</tr>
<tr>
<td>12.</td>
<td>11/26-12/2</td>
</tr>
<tr>
<td>13.</td>
<td>12/3-12/9</td>
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<tr>
<td></td>
<td>12/10-12/13</td>
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</tbody>
</table>

*Introductions, Climate Mitigation and Adaptation*

*Drawdown actions*

*Social networks and spread of behaviors*

*Social mobilization*

*Social norms*

*Social marketing*

*Social media and behavior change*

*Action plan implementation*

*Action plan implementation*

*Action plan implementation*

*Action plan implementation and assessment*

*Action plan implementation and assessment*

*Prepare final presentations on your action implementation*

*Give final presentations on your action implementation*
Two Approaches to Influencing Behaviors

Social Influence

How do we influence others?

Social Network

Who influences Whom?

3. CCOF Format and Technology?
CCOF Components

1. Content and discussion
2. Weekly real-time discussions
3. Sharing resources
4. Support and encouragement
5. Network climate action
CCOF Format and Technology

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CCOF Format and Technology

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5. Network climate action
Weekly tasks

10 September – 13 December.

Tasks completed according to your own time frame with weekly deadline of Tuesday 8am NY time
1. Read articles and websites, and view short video lectures about climate change, social influence, and social mobilization.

2. Post thoughtful responses to weekly discussion questions based on readings on the fellows discussion board.

3. Participate in your small group of fellows.

Weekly webinar scheduled at specific time
4. Participate actively in small group and full fellow discussions during our weekly webinars, scheduled Tuesdays, 8am-10am, New York time.

Tasks completed one time during the fellowship:
5. Plan, implement, and assess a greenhouse gas mitigation action among your social network. Write a report or produce a multimedia presentation of your action, challenges faced, and outcomes realized.

6. Answer surveys designed to assess the impact of the Cornell Climate Online Fellows program.
CCOF Platform: edX Edge

Climate Change Online Fellowship (CCOF)

About this course
- Week A - Introduction to Class and to Climate Change Science
- Week B - Climate Change Communication
- Week 1 - Introductions, Climate Mitigation, Vulnerability, and Adaptation
- Week 2 - Drawdown Solutions
- Week 3 - Social Networks and Spread of Behaviors
- Week 4 - Social Mobilization
- Week 5 - Social Norms
- Week 6 - Social Marketing
- Week 7 - Social media and behavior change
- Week 8 - Action Plan Implementation
- Week 9 - International climate change agreements
- Week 10 - Influencing US Policy
- Week 11 - Putting a price on carbon: The costs and benefits of CO2 abatement
- Week 13 - What we use - the circular economy
- Week 14 - Envisioning a new future and climate leadership
- Week 15 Final presentations
Week 3 Social Networks and the Spread of Behaviors (Complex Contagion)
READ


c. Networks Dynamics Group. https://ndg.asc.upenn.edu/ (Explore this website for additional information on complex contagion and behavior change)

DISCUSS

Instructions: Please answer all three discussion questions below. Click on "Add a Post" under each question. USE YOUR NAME IN THE TITLE FOR YOUR POSTS, so it's easy to see who is posting. Once you have posted your own answer to the question, you will need to "respond" to at least two other students' or fellows' posts. If you are one of the early posters, you may need to come back later to find other students'/fellows' posts.

1. **Diffusion of behaviors.** In Centola's article "The truth about behavior change," he offers four explanations for why behaviors diffuse through small networks with strong ties rather than large networks with weak ties. Please reflect on each of these mechanisms as applied to what you have observed about climate change or other environmental behaviors.

2. **Complex contagions application.** How might you apply Centola's work on complex contagions to your climate network action? How large is your network? How tightly connected are its members?

3. **Action Plan.** Please repost your action plan (you can copy and paste from last week) with any changes made as a result of readings, the webinar, and discussions in your small group. Explain BRIEFLY the changes you are making at the top of your answer.
Discussion 1. Diffusion of behaviors

Topic: Week 3 Q1 / Week 3 Q1

- **O’Gorman - diffusing behaviors in corporate conservation**
  I’ll answer the question focused on my experience in increasing participation in corporate conservation. In the world of corporate conservation, strategic complementarit...  
  2

- **Diffusion of behaviors**
  I will use the example of household waste segregation and solar power in my previous building community to explain the four psychological mechanisms identified by Ce...  
  1

- **Diffusion of Behaviours - Jane H**
  I have used the growth of the Green-Schools programme in Ireland as an example of how the 4 elements of Centola’s diffusion of behaviours works within a network. 1...  
  2 new

- **WILLIAM GAGNON**
  Although at first counterintuitive, it really was a realization for me that yes, indeed, ideas spread more successfully in small groups with strong ties than in large groups w...  
  1

- **Tsherong Tobgay**
  Diffusion of behaviors. In Centola’s article “The truth about behavior change,” he offers four explanations for why behaviors diffuse through small networks with strong ti...  
  1

- **Hamidullah Nikzad**
  We observe today’s activities of networks in social media not physically in field of environment and climate change in Afghanistan. The wide networks in social medias...  
  1

- **Diffusion of Behaviours**
  So much insight on behaviour change in Centola’s writing. Indeed behaviour is learnt over time, from repeated exposure, within close network and from people you tru...  
  1

- **Diffusion of behaviors - Mutasim Adam**
  I think small networks with strong ties are effective rather than large networks with weak ties as I agree with the four psychological mechanisms, when we think of a chan...  
  1

- **Dayo**
  Damon mentioned four factors that usually influence behavioral change. **Strategic complementarity** (This applies more to adopting a product or buying a stock than ...  
  1

- **Di Wu**
  The four mechanisms Centola offered are Strategic complementarity, Credibility, Legitimacy, Emotional contagion. I would like to choose people buying electric vehicles (...  
  2

- **Daniel Hamilton - Diffusion of Behaviors**
  The four mechanisms identified by Centola to explain the success of behaviors diffusing through small networks with strong ties rather than large networks with weak tie...  
  1

- **Diffusion of behavior Pradeep**
Weekly webinars

1. Overview of concept (Krasny)

2. 2-3 fellow short presentations

3. Break out into small groups (critical thinking questions)
Who...
   Plays a sport or does an art (which one?!)

Lives in city over 15 million

Lives in country less than one million

Will see snow sometime during this fellowship?

Can bask in the tropical sun this weekend?

Lives in a country where tree planting is considered a major climate mitigation/adaptation action

What time is it now where you are?

Is plastics a climate issue?

Click on Chat to ask any question—give your name and repeat question. (e.g., Meipeng Lu and live in city over 15 million, James Nyere and time is 5am)
Small Group Discussion

1. *Introduce yourselves.*

2. *Briefly review the local climate impacts and actions* you posted on the Discussion Board.

3. How *effective* do you think these actions are?

4. How might they be *more effective* in reaching mitigation or adaptation goals?
CCOF Fa 19 Small Groups

**Group 1**
Catherine Rider, USA  
Crispin Chowle, Zambia  
Jane Hackett, Ireland  
Tshering Tobgay, Bhutan  
Yan Zhu, China

**Group 2**
Dayo Oladipo, China (Nigerian)  
Emmanuel Niyoyabikoze, Burundi  
Loan Phâm, Vietnam  
Maximilian Schubert, Germany  
Thany Thol, Cambodia

**Group 3**
Avinash Acharya, India  
Francisco Gerardo Garcia Martinez, Mexico  
Margaret O’Gorman, USA  
Maya Ashirova, Turkmenistan  
Rade Glomazic, Austria (Serbian)

**Group 4**
John Leo Algo, Philippines  
Manomita Das, India  
Sharin Shajahan Naomi, Bangladesh  
Sivendra Michael, Fiji

**Group 5**
Katarzyna Smętek, Poland  
Keaton Harris, South Africa  
Munira Berhe, USA  
William Gagnon, Canada

**Group 6**
Di Wu, China  
Fernando Lozada, Peru  
Pradeep Bhattarai, Nepal  
Shadman Rahman, USA (Bangladeshi)

**Group 7**
Charles Sharp, USA  
Hamidullah Nikzad, Afghanistan  
Juma Haule, Republic of Tanzania  
Mutasim Adam, Sudan

**Group 8**
Andrea Tatiana Vargas Elío, Bolivia  
Maggie Ngwira, Malawi  
Martin Ramirez, Colombia  
Tatek Belay Tegegne, Ethiopia

**Group 9**
Fatima Delgado, Spain (Ecuadoran)  
Henry David Bayoh, Sierra Leone  
Jiyun Jeoung, Japan (South Korean)  
Lovans Owusu-Takyi, Ghana
Implementing your action: Choose an action

<table>
<thead>
<tr>
<th>Rank</th>
<th>Solution</th>
<th>Sector</th>
<th>Total Atmospheric CO2-EQ Reduction (GT)</th>
<th>Net Cost (Billions US $)</th>
<th>Savings (Billions US $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Refrigerant Management</td>
<td>Materials</td>
<td>89.74</td>
<td>N/A</td>
<td>-902.77</td>
</tr>
<tr>
<td>2</td>
<td>Wind Turbines (Onshore)</td>
<td>Electricity Generation</td>
<td>84.60</td>
<td>$1,225.37</td>
<td>$7,425.00</td>
</tr>
<tr>
<td>3</td>
<td>Reduced Food Waste</td>
<td>Food</td>
<td>70.53</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>Plant-Rich Diet</td>
<td>Food</td>
<td>66.11</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>Tropical Forests</td>
<td>Land Use</td>
<td>61.23</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>Educating Girls</td>
<td>Women and Girls</td>
<td>51.48</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>7</td>
<td>Family Planning</td>
<td>Women and Girls</td>
<td>51.48</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>8</td>
<td>Solar Farms</td>
<td>Electricity Generation</td>
<td>36.90</td>
<td>$-80.60</td>
<td>$5,023.84</td>
</tr>
<tr>
<td>9</td>
<td>Silvopasture</td>
<td>Food</td>
<td>31.19</td>
<td>$41.59</td>
<td>$699.37</td>
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<tr>
<td>10</td>
<td>Rooftop Solar</td>
<td>Electricity Generation</td>
<td>24.60</td>
<td>$453.14</td>
<td>$3,457.63</td>
</tr>
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</table>
Implementing your action: Choose an action
Implementing your action: Choose a network.
Assessing your action: Count actions, survey participants
Assessing your action: Estimate CO2 saved or offset

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost</th>
<th>CO2 Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Energy, 1 yr</td>
<td>$187.025</td>
<td>14962.0 lbs</td>
</tr>
<tr>
<td>International Air Travel, 1 yr</td>
<td>$15.85</td>
<td>1268.0 lbs</td>
</tr>
</tbody>
</table>

Or, send check to Sustainable Tompkins / 309 N Aurora / Ithaca, NY with 'FLCF' in memo line
My Action: Carbon Offsets for air travel
My Action Network: Office colleagues in Fernow Hall
My Action Network: Office colleagues

<table>
<thead>
<tr>
<th>Team Members</th>
<th>Score: 184191</th>
<th>Offsets: 81</th>
</tr>
</thead>
<tbody>
<tr>
<td>mark whitmore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christina Stark</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angela Fuller</td>
<td></td>
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<tr>
<td>Barbara Knuth</td>
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<tr>
<td>Brian Hutchison</td>
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<tr>
<td>Brian Chabot</td>
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<tr>
<td>David Weinstein</td>
<td></td>
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<tr>
<td>Wade S</td>
<td></td>
<td></td>
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<tr>
<td>Anne Armstrong</td>
<td></td>
<td></td>
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<tr>
<td>Rachael Mady</td>
<td></td>
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</tr>
<tr>
<td>Yue Li</td>
<td></td>
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<tr>
<td>Mi Yan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aleysia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bjorn Whitmore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sylvan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patrick Sullivan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shorna Allred</td>
<td></td>
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</tr>
</tbody>
</table>

**Carbon Races Leaderboard**

1. Friends of Ellen
   - CO2 Offset: 523,558 lbs
   - Number Offsets: 64
   - Number Players: 19

2. Mothers Out Front - Corning Community Team
   - CO2 Offset: 306,487 lbs
   - Number Offsets: 76
   - Number Players: 17

3. Sustainable Tompkins
   - CO2 Offset: 253,862 lbs
   - Number Offsets: 82
   - Number Players: 20

4. Fernow and Friends
   - CO2 Offset: 184,191 lbs
   - Number Offsets: 81
   - Number Players: 31

5. Tompkins County Climate Protection Initiative
   - CO2 Offset: 143,046 lbs

*Invite others to join this team*
Ongoing support among fellows

The shelter that was evacuated had cots

+1 (913) 481-9920  ~Richard
Stay strong Gail, we are all pulling for you and your circumstance

8:51 AM

+1 (242) 374-4945  ~Gail Woon
The worst has not hit us yet

9:47 AM

Many areas of the island under 4 to 6 feet of storm surge. Families are calling for rescue from the water in their homes. No rescuers are allowed out in these conditions

9:48 AM

+263 71 544 3343  ~Maxwell
We are praying for your total safety and all

9:50 AM

+1 (242) 374-4945  ~Gail Woon
Please don't stop.

9:52 AM

Great people are designed to overcome great challenges that why you are Great Gail.
So the great victories makes you Great Gail.
You are a special star in this CCOF Community.
Bless you my dear sister. You are an inspiration.

3:02 PM
Lessons Learned

An online community can support people as they deal with climate crises.

People are taking action to mitigate climate change in circumstances we wouldn’t expect.

Influencing one’s network is hard, but seems to be more successful in homogenous groups with established trust.

Need multiple messengers and multiple messages to change behaviors (forget the “influencer”!)
4. Suggestions? Questions?

CLEAN
CLIMATE LITERACY & ENERGY AWARENESS NETWORK

Cornell Climate Online Fellows
Fall 2019 cohort. A global community taking action to address climate change.
September 10 – December 13, 2019
Apply by August 25
http://CivicEcology.org/CCF

Cornell University
Thank you!