

Day 1: Establishing Goals

9:00–9:30: Organisers' introduction. Summarising goals, scope, and program of the workshop.

9:30–10:30: Keynote 1.

Mike Berners-Lee (via remote link) will provide important high-level context for the workshop, delivering a talk on the climate emergency and what it would take to limit climate change to 1.5 degrees Celsius above pre-Industrial levels (i.e. to fulfil the Paris Agreement). This will be followed by Q&A and a group discussion on computing's role in a path to successful climate change mitigation.

10:30–11:00 (or 10:00-10:30): Coffee break.

11:00–11:45: Hopes and fears. Small group discussions. Participants discuss what they think needs to happen, and how hopeful/pessimistic they are about it happening and why.

11:45–12:15: Feeding Back. Groups return to discuss the key takeaways from their discussions.

12:15–13:00: Lunch break. Discussion continues over lunch.

13:00–13:45: Keynote 2.

Vint Cerf (via remote link) will offer a positive social vision to inspire the CS community towards what we can “pledge” as our contributions to fight against climate change. This will be followed by Q&A and a group discussion on computing's many (and often conflicting) responsibilities.

13:45–15:30: Computing positives and negatives. Small group discussions. Participants discuss which computing technologies have the greatest potential for positive climate impact, which have the greatest potential for negative climate impact, and which negative environmental impacts are “justifiable” on the basis of other social responsibilities.

15:30–16:00: Coffee and cake.

16:00–17:00: Feedback and consolidation. Groups will report on the content of their discussions, and the organisers will facilitate discussion on how the landscape of computing research and innovation might change if climate were prioritised.

18:00: Dinner

Day 2: Pathways to Realising Goals

9:00–9:15: Organisers' introduction. Summarising goals and structure for the day, recapping the previous day.

9:15–10:15: Keynote 3&4.

Vlad C. Coroamă will speak on efforts to develop a methodology for measuring net impact of digital technologies (on balance between emissions generated and emissions avoided) and the challenges relating to rebound effects. Emma Strubell will speak on the state-of-the-art in measuring the environmental footprint of AI, and challenges entailed therein. These will be followed by Q&A and group discussion.

10:15–10:45: Coffee break.

10:45–11:45: Carbon reductions. Small group discussions. Participants discuss advancements in specific areas of computing that are (or can) yield significant carbon reductions.

11:45–12:15: Feeding Back. Groups return to discuss the key takeaways from their discussions.

12:15–13:00: Lunch break. Lunch break. Discussion continues over lunch.

13:00–13:45: Keynotes 5&6.

Tom Romanov will provide an overview of the global regulatory/legislative landscape, both in terms of policies designed to curb environmental impacts of computing and in terms of spurring technology innovation. Drawing on her experience in Biden's administration, Sorelle Friedler will talk about the challenges of directing environmentally sustainable technologies given the complexities of international politics, levers for effecting policy change, and ways this group can direct positive change in the face of political opposition and policy limitations. These will be followed by Q&A and a group discussion on the political barriers to effecting positive change for the climate.

13:45–15:30: Developing a ‘Rulebook’. Inspired by the Paris Rulebook (the practical guidance for the implementation of the Paris Agreement), attendees will work in small groups to sketch out a coordinated plan for ratcheting down sectoral emissions in 5-year increments.

15:30–16:00: Coffee and cake.

16:00–17:00: Feedback and consolidation. Groups will report on the content of their discussions, and the organisers will facilitate discussion towards converging on a shared view on how to maximise net positive impacts of computing.

18:00: Dinner

Day 3: Creating a Manifesto

9:00–10:00: Paired reflection. Working in groups of 2 and reflecting on the discussions across the entire workshop, attendees will begin to draft principles for a Dagstuhl Manifesto.

10:00–10:30: Coffee break.

10:30–11:15: Merging principles. Groups of 2 will join two other groups of 2 to compare principles, and work together to merge these principles, combining as appropriate and collectively refining the language.

11:15–11:45: What can ACM do? Group discussion on the role ACM might play in leading computing towards greater climate responsibility.

11:45–12:15: Conclusions and Next Steps. Organisers will summarise the outputs from the workshop, key areas of tension or disagreement, and unresolved issues. The whole group will discuss the best route forward in creating a shared manifesto and in enacting its vision.

12:15–13:00: Lunch break and close.