OUR OCEAN 2017

OCTOBER 6, 13:45-15:15 PANEL SESSION: CLIMATE-RELATED IMPACTS ON THE OCEAN and ANNOUNCEMENTS

We live in a period of rapid transformation where technology is changing almost every aspect of our lives. This future based on cloud computing offers huge potential to enable major advances in energy efficiency, resource management, and conservation efforts. But it also raises complex challenges.

Today, Microsoft's datacenters consume more power than a small U.S. state. There will come a time in the not-too-distant future when the datacenters that Microsoft and other technology companies operate will consume more energy than a midsized European nation.

Building a responsible cloud therefore requires that we seek to minimize the impact of our business operations on the environment and foster environmentally sustainable business practices.

Microsoft has made important progress in this area since the start of this decade. We have been tracking and reducing carbon emissions since 2007 and have been operating 100% carbon neutral since 2012. We are continually increasing our use of renewable energy to power our datacenters and we also remain steadfastly committed to the Paris Agreement.

Climate change is an urgent issue that demands global action. With water covering more than 70% of the earth's surface, it is one of the most important resources on our planet. Yet, climate change and pollution increasingly impact our fragile marine ecosystems.

The scale and speed of changes we are witnessing in our natural world require new solutions leveraging innovative technologies. But these technologies are typically expensive and require computational expertise that makes them inaccessible for many researchers and nonprofit organizations.

Through our “AI for Earth” program Microsoft has committed $2 million in the form of grants that provide access to cloud computing resources, AI and data science tools as well as training to use them well, to organizations working on the issues of water, agriculture, biodiversity and climate change.

We are excited to announce today a dedicated “AI for Earth EU Oceans Award” that will allocate some of these funds exclusively to work with EU-based research institutions on addressing ocean-related challenges.

Our aspiration is ambitious, but simple – we want to put our cutting-edge AI tools in the hands of researchers and organizations to solve pressing environmental challenges and build a better, healthier and sustainable future for everyone on the planet.

With our “AI for Earth EU Oceans Award” we hope to create new insights, develop new solutions and applications and get them into the hands of people around the world – to help create a better prognosis and path forward for our planet.

I would like to give you a concrete example of how technology can help to address some of our ocean-related challenges.

Ocean acidification is an emerging global problem, according to the National Oceanic and Atmospheric Administration. Scientists are just starting to monitor ocean acidification worldwide, so for now it is impossible to predict exactly in what ways it will affect the marine environment.

A team from Microsoft Research in the UK and the University of Washington have developed a system called LiveOcean to understand and predict ocean chemistry through the power of cloud computing.

Let's take a look at how the system is being used to help those whose livelihood depends on the integrity of our fragile marine ecosystems. Let's roll the video:

https://www.youtube.com/watch?time_continue=206&v=qntLlC4F4JU

But data modelling of ocean acidification through LiveOcean has impacts far beyond oyster farmers off the coast of Washington struggling to survive changing conditions. Built on the Microsoft cloud, LiveOcean is a system open to anybody. For example, it can be used for particle tracking to see where individual particles in the ocean move. That tracking could predict where an oil spill might move. Visualizing the problems may even help to change how the public sees climate change and ocean chemistry.

There is an urgent need to strengthen the science as a basis for sound decision making and action and technology can help us to achieve just that.

We live on a small planet, and we all have a role to play in protecting it. This program is just a first step in a longer journey to help the planet and everyone on it, and we look forward to engaging with our partners and future partners to create a path forward for our planet.

Thank you.