

Name: mcp-125-nomcon-2020-keynote-empowering-everyone-to-end-the-sixth-mass-extinction

Title: Keynote: Empowering Everyone to End the Sixth Mass Extinction

Status: This document is a collaborative draft and can be edited by anyone.

The above headers are machine-readable; please preserve format.

Other NoM and NOMCON sessions, call, and working group docs: <http://bit.ly/mcp-index>

NOMCON 2020 Documentarian guidelines: [mcp-67](#)

NOMCON 2020 Chat moderator guidelines: [mcp-68](#)

Keynote: Empowering Everyone to End the Sixth Mass Extinction NOMCON 2020

Session Date/Time: 2020-06-04 13:00:00

Speaker Names: Paul Bunje, paul@conservationxlabs.com

Session Producer: Joe Floyd

Chat Moderator: Danielle Martin

Documentarian: Danielle Martin

Summary Points:

- The Tyranny of Experts is Over
 - Now is time to bring in new experiences
- Species are going extinct at alarming rate and we want/NEED to reverse it
- Conservation X Labs - purpose is to end human induced extinction
 - <https://conservationxlabs.com/>
- No matter how far away a spec of ocean or land, it is still impacted by humans
- Problems are getting exponentially worse
- Much as humans have created the problems, we have the means to solve them
- Conservation Innovation: A New Hope
- Exponential Technologies
 - Ubiquitous Sensors, AI, Robotics, Synthetic biology, VR, 3D printers
 - Democratized solutions
- Harness Human Behavior Rather than Fighting Against It
 - Be optimistic
 - Get practical - Ensure innovations are scalable and financially sustainable
 - Work in the real economy
 - Be practical
 - Engage the margins and integrate all perspective
 - Harness the Exponential
- Open Innovation
 - Crowdfunding, crowdsourcing, design thinking, mass collaboration, advance market commitments, challenges and prizes
 - We now have access to more people on the planet and their amazing minds
- Incentive and motivations
 - Compensation, convenience, fun, credibility/ego, passion, competitive spirit

- Crowdsourcing Examples
 - WildMe - combatting extinction with citizen science and AI - (Based in Portland Oregon, in PDX Hackerspace :-))
 - eBird- CornellLab of Ornithology - they have a brand new app call BirdSong
- There's more funding in the crowd than VCs!! Access to capital is available in a way that it wasn't before
- Prizes and Challenges
 - Commercial innovation - Charles Linberg won a prize to cross the Atlantic ocean
- The Global Cooling Prize
 - 5x Increase in Room A/C efficiency
 - One of the best ways to reduce greenhouse gas emissions - 1 degree climate change mitigated through 1 challenge
- Artisanal mining - <https://www.artisanalminingchallenge.com/>
- Ōhi'a Challenge
- Saving Lives at Birth
 - Car mechanic who was inspired by wine bottles won in Argentina
 - <https://www.npr.org/sections/goatsandsoda/2018/08/26/637472896/whatever-happened-to-the-car-mechanic-who-invented-a-device-to-pop-out-a-baby>
- Blue Economy Challenge
 - Out of 221 entries, came from 25 countries all over the world
- Make for the Planet - Hackathon
 - Within 5 days, a working ROV was built
 - Winning team dealt with tanglement between Lobster cages and buoys - LovsterLift
- Mass Collaboration
 - Example: Wikipedia
 - Open Source Drug Discovery - group of international scientist created license free drugs for malaria and TB
 - Included scientist working on it just for fun and some professionally
 - <https://www.amazon.com/Reinventing-Discovery-New-Networked-Science/dp/0691160198>
 - iNaturalist
 - Digital Makerspace
 - ChimpFace, CargoScreen, OpenTag, Shark FitBit, NextGen Camera Trap
- Con X Tech Prize
 - Allowing a diversity of crazy ideas to flourish
 - \$300k total money awarded
 - Added Peer Advising
- Building the Tribe for Conservation's Future
- Closer to the Problems, Closer to the Solutions
- 3 Things to Remember
 - Embrace exponentials
 - Empower the Crowd
 - Reward Success
- Earth Echo is leading a youth, educational program in this area.
- U.S. Department of Agriculture will be initiating a challenge for youth soon.

What is the incentive and motivation for the crowd?

An effective crowdsourcing model leverages multiple motivators and incentives to engage a quality crowd to deliver quality results



Compensation

Payment – sometimes immediate - for services (e.g., oDesk)



Convenience

While you're running errands, an app knows you're near a job or task (e.g., Gigwalk)



Fun (Gamification)

The crowd platform uses gaming techniques to engage the crowd in a normally labor-intensive task (e.g., Spot the cancer cells)



Credibility/Ego

"Bragging Rights" for winning a crowd-sourced competition (e.g., Kaggle, Tongal, XPRIZE)



Passion

Being part of something significant, where the sum is greater than its parts (e.g., Kickstarter/Crowd funding)



Competitive Spirit

Prize-based competitive models (XPRIZE, Tongal)



Paul Bunje

Conservation X Labs

COO/CSO

Los Angeles, CA

paul@conservationxlabs.com



<https://conservationxlabs.com>

Paul Bunje is the co-founder and COO/CSO of Conservation X Labs, an organization that brings innovation to global conservation threats. Conservation X Labs brings technology and entrepreneurship to protect biodiversity using a mix of crowdsourcing, open innovation, directed research, and acceleration. Paul was formerly the Chief Scientist at the XPRIZE Foundation, where he led the impact strategy across grand challenge domains at XPRIZE, spanning civil society, environment, energy, health, and exploration. Dr. Bunje is a global thought leader in bringing innovation to solve environmental grand challenges. Paul was formerly the founding Executive Director of the UCLA Center for Climate Change Solutions, the Managing Director of the Los Angeles Regional Collaborative for Climate Action and Sustainability, and served on the World Economic Forum's Global Agenda Council for Oceans. The American Association for the Advancement of Science selected Paul as one of 40 individuals that exemplify the thousands of AAAS Science and Technology Policy Fellows who are dedicated to applying science to serve society. Paul is trained in biology, with a B.S. from the University of Southern California and a Ph.D. from the University of California, Berkeley.

- Copy or write questions below as they arrive, either live or in chat box.
- Use ~~striketrough-text~~ after they are answered.
- For multiple panelists, if a speaker's name is noted in question, be sure to include that.

While I agree that experts stop some innovation, one of the biggest problems we face is people who feel that their google search is degree equivalent.

From Shannon | she/her | Pitkin County Library to Everyone: (10:18 AM)

@Dave absolutely! As a information professional it is an uphill battle

@Dave and @Shannon. I thought that at first but feel that the major difference is that we are a group of makers, thinker and doers. This is a group that will do the hard work, make mistakes and pose ideas. Some may be in theory but they will eb based on our individual experiences which opens the playing immensely.

Questions asked by Attendees Live:

Questions from Chat Box:

- Q: While I agree that experts stop some innovation, one of the biggest problems we face is people who feel that their google search is degree equivalent.
 - A:
- Q: How do you watch the video. It asks for a password.
 - A:
- Q: Are you organized as Chapters? How would we best find someone else near me?
 - A: Join the Digital Makerspace
- Q: What ask do you have of the maker community that is specific? Getting info about these initiatives is great but is there a more specific ask to support your work?
 - A:
- Q: Any of the programs/challenges targeted towards beginners or more specifically the youth?
 - A:
- Q: How do you decide what causes are chosen to develop a challenge around?
 - A:
- Q: In the programs you work on how do you ensure that participants represent a diversity of race, class and gender?
 - A:
- Q: There's probably a lot of interest in this area with the younger groups (high school, college, just out of college) are you engaged with the educational community? Mentoring programs?
 - A:
- Q: Are the grand challenges usually open sourced? do you provide a platform for them to share the designs?
 - A:
- Q: Does anyone have a master list of design challenges that we could share with our members / community?
 - A:

- Q: Are you able to reach people in a variety of languages?
 - A: The community has many already able to speak multiple languages.
- Q: since slack channels can be shared between organizations, does it make sense for the NOM lack to have a shared conservationXlabs channel, where they can easily get word to our maker community?
 - A: Yes, Dorothy will investigate.
 - A: We also have Tom Quigly as a member of our NoM Slack Community - he's the Conservation.X Labs Digital Makerspace manager!
- Q:
 - A:
- Q:
 - A:

Before the session wraps up, be sure to copy all of the chat and paste in this doc as backup. It can be used to backfill any missing information.

Chat Log (paste below just before session end):

09:47:55 From Danielle Martin : Hey I'm here but I'm actually finishing up another zoom on another device ;)

09:52:36 From NOMCON Keynote Producer : Hi Everyone. Thank you for arriving early. We will admit you all soon.

09:57:05 From Nathaniel Lyttle : hey everyone! ready for another day of nomcon?!

09:58:05 From Steve Davee : Good morning Nathaniel!

09:58:26 From Rei Cameron : Good morning everyone from Mesa, AZ!

09:58:33 From Nation of Makers : Welcome everyone to NOMCON Day 2!!!

09:58:34 From Shannon | she/her | Pitkin County Library : Good Morning from Colorado!

09:58:45 From Nation of Makers : If you have a chance, let us know where you're calling in from!

09:58:50 From Morgan Sawicki : Good morning, everyone! Signing in from Colorado Springs.

09:59:00 From Nina Herbst : Good morning from Eugene Oregon!

09:59:12 From David Brightbill : Good afternoon from the Miccosukee Land Coop in Florida.

09:59:14 From Jacqui Cantu, Factur, she/her : Hello. From Factur in Orlando, FL

09:59:28 From Steve Davee : Hey Nina! Hello everyone from Portland, Oregon

09:59:33 From Charlie Arthur : Good morning from SLO, California

09:59:43 From Kate Warren : Hello, from Chattanooga!

09:59:43 From Cara Kouse : Good afternoon from Ohio!

09:59:46 From Trey Lathe : good morning from san francisco

09:59:50 From Christina Streeter Oxford, MS : Hello from Oxford, MS

09:59:53 From Tamara Evans : Hello from Hanford, CA!

09:59:56 From Maria Esquela : Hi, this is Maria from e-NABLE Alliance in Columbia, MD (exactly between Baltimore and Washington.)

10:00:00 From Mark Bowlus (he/him) BiG Fab Lab : Hello from Ohio!

10:00:04 From Nathaniel Lyttle : I didn't say, calling in from Indianapolis, IN!

10:00:05 From Laura Gangstad : Hi! From Zionsville, Indiana!

10:00:13 From Shannon | she/her | Pitkin County Library : Right back at ya!

10:00:18 From Rose : Hi from New Haven, Ct!

10:00:19 From Joel Bruns : Hello from Indianapolis

10:00:22 From Danielle Martin : Good Morning from Redwood City!

10:00:30 From Dan Ozeran : Good morning from Fresno, California.

10:00:44 From Ron : Hello Everyone from Annapolis MD

10:01:00 From Hammerspace Workshop : Good morning from KC.

10:01:09 From Morgan Sawicki : What a good doggo, Nathaniel!

10:01:15 From Nan Braun : Good day everyone!!

10:01:33 From Jim Berry : Hello from Robot Garden in Livermore, CA

10:01:33 From Andy Hasara (Cyberia, Indianapolis, IN) : Hello fellow Hoosiers!

10:01:59 From Kate Warren : Yay! yoga!

10:02:15 From Dave Smith : good morning from FamiLAB in Orlando,FL

10:02:47 From schneidy : Good afternoon from Rochester, NY!

10:02:52 From Janelle Ozeran : Hello from Fresno Ideaworks in Fresno, CA!

10:03:03 From Navarre : Hi from Charlottesville!

10:03:09 From Jeanette Breton : Morning from Colorado, everyone!

10:03:28 From Justin Miller : 🙌 from Portland, OR!

10:03:53 From Andy Hasara (Cyberia, Indianapolis, IN) : How do you watch the video. It asks for a p[assword.

10:04:50 From Mel@i3Detroit : I reloaded after that message and then it worked for mme.

10:04:57 From Trey Lathe : the film?

10:05:57 From Trey Lathe : If it's the film, I'll check with the producers, they said the password was going to be taken off.

10:09:00 From Andy Hasara (Cyberia, Indianapolis, IN) : @mel I will try refreshing when I check next time. YThanks!

10:09:07 From John van Otterloo (he/him) - CCLD Makerspace, Elmira, NY : Feel free to collaborate on documenting the session:
https://docs.google.com/document/d/1BHvWSa79Yd_P3-mzaokgtlFgnPPcVMjBnSY5Y7YTmYo/edit

10:17:48 From Dave Smith : While I agree that experts stop some innovation, one of the biggest problems we face is people who feel that their google search is degree equivalent.

10:18:22 From Shannon | she/her | Pitkin County Library : @Dave absolutely! As a information professional it is an uphill battle

10:18:32 From Hammerspace Workshop : <3

10:19:41 From Steve Davee : Yay Wild Me! Based here in Portland, Oregon, in our PDX Hackerspace. They are the coolest team!

10:19:43 From Stephanie Santoso : This is amazing!

10:25:38 From Kate Warren, Founder Art 120 : @Dave and @Shannon. I thought that at first but feel that the major difference is that we are a group of makers, thinker and doers. This is a group that will do the hard work, make mistakes and pose ideas. Some may be in theory but they will eb based on our individual experiences which opens the playing immensely.

10:26:50 From Shannon | she/her | Pitkin County Library : @Kate...I agree with you as well. AS long as we are passing on our knowledge to people that are not as savvy. That is why I love what we do!

10:27:37 From Kate Warren, Founder Art 120 : @Shannon.. Me too <3

10:27:41 From Shannon | she/her | Pitkin County Library : @Kate... or as patient :)

10:28:10 From Maria Chavez : One of my favorite stories!

10:28:20 From Nation of Makers : Such a great story!

10:28:33 From Jeanette Breton : These's could be opportunities where those in college or soon after that are looking for ways to build skills when the market is chaotic...

10:28:40 From Charlie Arthur : Hahaha love that story

10:28:51 From Maria Chavez : FYI -
<https://www.npr.org/sections/goatsandsoda/2018/08/26/637472896/whatever-happened-to-the-car-mechanic-who-invented-a-device-to-pop-out-a-baby>

10:28:53 From Nation of Makers : 100%, Jeanne!

10:37:57 From Rebecca Snyder (she/they) | Quelab : Thank you!

10:37:59 From Maria Chavez : thank you Paul!

10:38:05 From Shannon | she/her | Pitkin County Library : Thank you so. Much!

10:38:07 From Jeanette Breton : Thank you!

10:38:12 From Elliott Kirkpatrick : Links I collected from this talk (I defiantly didn't get everything)
https://docs.google.com/document/d/1BHvWSa79Yd_P3-mzaokgtlFgnPPcVMjBnSY5Y7YTmYo/edit
<https://conservationxlabs.com/>
<https://www.wildme.org/>
<https://ebird.org/home>
<https://rmi.org/>
<https://www.artisanalminingchallenge.com/>
<https://www.npr.org/sections/goatsandsoda/2018/08/26/637472896/whatever-happened-to-the-car-mechanic-who-invented-a-device-to-pop-out-a-baby>

10:38:16 From Morgan Sawicki : Excellent talk!!!

10:38:33 From Charlie Arthur : Thank you! Downloading all apps mentioned, great stuff

10:39:10 From Rebecca Snyder (she/they) | Quelab : Advantage to online conference -- I have already emailed some links to a friend in environmental science who I think would be interested! It's easy to forget all about that if saved for later.

10:39:13 From Jeanette Breton : Are you organized as Chapters? How would we best find someone else near me?

10:39:18 From Leah Hanes : Fabulous talk Paul. Thank you!

10:39:34 From Steve Davee to Danielle Martin (Privately) : Sending you a special co-host hug :)

10:39:56 From Maria Chavez : What ask do you have of the maker community that is specific? Getting info about these initiatives is great but is there a more specific ask to support your work?

10:41:31 From Charlie Arthur : Any of the programs/challenges targeted towards beginners or more specifically the youth?

10:41:38 From Janelle Ozeran : Also <https://www.birds.cornell.edu/citizenscience>

10:41:48 From Mitra Gruwell : How do you decide what causes are chosen to develop a challenge around?

10:42:19 From Fiacre Ó Duinn : In the programs you work on how do you ensure that participants represent a diversity of race, class and gender?

10:42:31 From Jeanette Breton : There's probably alot of interest in this area with the younger groups (high school, college, just out of college) are you engaged with the educational community? Mentoring programs?

10:43:21 From Leah Hanes : I'm volunteering to work with you and youth!

10:44:14 From Jeanette Breton : Thanks for your efforts, @Leah!

10:44:28 From Nation of Makers : You're the best, @Leah!!! <3 This makes me so happy!

10:45:57 From Adric Menning : Are the grand challenges usually open sourced? do you provide a platform for them to share the designs?

10:46:18 From Charlie Arthur : Yay, thank you Leah

10:46:19 From Mark Bowlus (he/him) BiG Fab Lab : Great presentation- thank you! Does anyone have a master list of design challenges that we could share with our members / community?

10:47:02 From Maria Esquela, e-NABLE Alliance : +1on that @Mark Bowlus

10:48:10 From Jeanette Breton : Looks like they are trying to capture many on their website:

<https://conservationxlabs.com/grand-challenges-for-conservation>

10:48:54 From Rebecca Snyder (she/they) | Quelab : Are you able to reach people in a variety of languages?

10:49:38 From Nan Braun - she/her - Indiana Makers : since slack channels can be shared between organizations, does it make sense for the NOM lack to have a shared conservationXlabs channel, where they can easily get word to our maker community?

10:49:50 From Paul Bunje : paul@conservationxlabs.com

10:50:37 From Jeanette Breton : Good idea, @Nan!

10:51:20 From Nation of Makers : Definitely! We also have Tom Quigly as a member of our NoM Slack Community - he's the Conservation.X Labs Digital Makerspace manager!

10:51:38 From David Brightbill : excellent idea