

# "XPLORATION EARTH 2050"

SEASON V - 2018/2019 FCC FRIENDLY EPISODE WRITE-UPS

## THIRD QUARTER

Week of June 24, 2019 through week of August 26, 2019

### Week of June 24, 2019 (Episode #143)

DNA---we all have it, and it's being used for a lot more than solving crimes. Could we get DNA from dinosaurs? Host Chuck Pell visits a lab where they've discovered fossilized proteins that are coming awfully close. DNA is even being used to help people find the perfect mate. And do you want to know everything about your dog? Well, DNA has the answer.

### Week of July 1, 2019 (Episode #144)

We tend think of robots as boxy, hard, and a little awkward. Well, those days are over. Host Chuck Pell discovers the new world of soft robotics, where robots are so human-like they can actually feel things. 3D printers are being used to make robots with remarkable similarities to our bodies. And jellyfish---a very soft animal---are serving as models for artificial hearts.

### Week of July 8, 2019 (Episode #145)

The STEM initiative, which is designed to promote Science, Technology, Engineering and Math to the nation's schoolchildren, is getting a big boost from both the private---and public---sectors. Host Chuck Pell visits an event, sponsored by the Navy League, which puts thousands of future inventors in touch with adult professionals happy to provide their expertise. And we travel to Texas to watch grade-schoolers compete in a nation-wide contest building robots submarines.

### Week of July 15, 2019 (Episode #146)

New technology is capable of things not thought possible a generation ago. Host Chuck Pell has a conversation in real-time with a hologram of a holocaust survivor. Thanks to new tech these survivors will be able to personally relate their experiences---forever. And we visit a futuristic deep-freeze, where people have their bodies cryogenically frozen in the hope that they will one day emerge healthy and happy.

### Week of July 22, 2019 (Episode #147)

Future tech is changing the basics of human existence, including our five senses. Host Chuck Pell experiences a future robotic hand that will transform our sense of touch. He sees the biggest 'ear' on planet Earth. And talks to a scientist who smells a great future for products that can make our noses work better then ever.

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### Week of July 29, 2019 (Episode #148)

Sustainability is a word you're going to hear a lot more of on the road to 2050. Why waste when you can turn that waste into useable, environmentally friendly products? Host Chuck Pell meets inventors who are literally creating shoes out of thin air. Yes, they're taking carbon dioxide out of the atmosphere and creating sneakers with it. And who would have thought that landfills would be a great source of diesel fuel?

### **Week of August 5, 2019 (Episode #149)**

Artificial Intelligence, or 'AI', is all the rage among futurists. Is it good, bad, something to be worried about, or something to be embraced? Host Chuck Pell talks to leaders in the field of AI. They discuss Deep Blue, the IBM computer that beat the best chess player in the world, and show how games are key to creating working AI. Did you know the best poker player on the planet is a computer?

### **Week of August 12, 2019 (Episode #150)**

Solar power is the fastest growing power source in the world; in fact, it's a new industry creating tens of thousands of jobs. Host Chuck Pell learns how the eyes of moths are being used to create more efficient solar energy. And he visits a giant 'farm,' where thousands of solar panels produce the ultimate form of cheap, and renewable, energy.

### **Week of August 19, 2019 (Episode #151)**

Future tech is bringing the past alive. Join host Chuck Pell as Virtual Reality technology recreates ancient cities. And laser scanning and video animation give new life to old fossils.

### **Week of August 26, 2019 (Episode #152)**

Sound—you don't think much about it, but futurists and entrepreneurs do. Host Chuck Pell catches up with two college-age inventors who've created a fire extinguisher that puts out fires---with sound waves. Another inventor has created a 'sound cloaking' device that could make submarines invisible to sonar. And sound waves can also be used to defy gravity---provided you can generate enough noise.