参考译文

The Internet Needs A Tune-Up

互联网需要调整

“So, the internet is really a network of networks that underlies CRItically so many things in our lives. But really 50 years ago it was an experiment that escaped from the lab. And it wasn’t really designed to be the global communications infrastructure it is today.”

“互联网实际上是一个网络，它建立在我们生活中的许多事情的基础之上。但实际上在50年前，这是一个逃离实验室的实验。而且它设计目的并非是今天的全球通信基础设施。”

Jennifer Rexford, a computer scientist at Princeton University specializing in computer networks. She spoke to Scientific American editor-in-chief Mariette DiChristina at the recent World Economic Forum in Davos.

普林斯顿大学计算机科学家Jennifer Rexford专门研究计算机网络。 她在最近的达沃斯世界经济论坛上，与科学美国人主编Mariette DiChristina交谈。

“So, it really planted the seeds of tremendous innovation around the periphery of the internet and the devices we connect to it and the applications we run over it. But ironically it didn’t plant the seeds of its own innovation. And we suffer from that every day, from the fact that we have denial-of-service attacks taking down websites, we have performance problems, Netflix streams grinding to a halt and so on.

“因此，它确实在互联网外围，以及我们连接到它的设备，以及我们运行的应用程序中，植入了巨大创新的种子。但讽刺的是，它并没有植入自己创新的种子。 我们每天都会因此受到影响，从拒绝服务攻击取消网站，到我们遇到的性能问题，Netflix流停止等等。

“In my work on self-driving networks we’re bringing together two really exciting technologies: machine learning that’s transforming everything, by taking raw data into true situational awareness. And the second is programmable network switches that bring the same idea of enabling and lowering the barrier to innovation that we have at the outside of the internet to its basic underpinnings.

“在我的自驾车网络工作中，我们汇集了两项非常令人兴奋的技术：第一种是机器学习，通过将原始数据转化为真实的情景意识，来改变一切。第二种是可编程网络交换机，这种交换机为我们在互联网之外，创造的创新障碍，带来了相同的想法，并将其作为基本支撑。

So that we can learn how to sense and actuate better over time, so that the network can learn to detect performance problems and route around them. To detect denial-of-service attacks and block them before they do significant harm. So, the marriage of these two technologies is really happening now, and it’s a great opportunity to build an internet that actually is worthy of the trust that we increasingly place in it today.”

因此，我们可以学习如何随着时间的推移更好地感知和激励，以便网络可以学习检测性能问题。检测拒绝服务攻击，并在它们造成重大伤害之前阻止它们。所以，这两种技术的结合，现在确实正在发生，这是一个很好的机会，来建立一个真正值得我们信任的互联网，而我们现在越来越信任它。

听力原文

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