

Satellites are changing the night sky as we know it

Expect the night sky to start changing fast. One day soon, the stars we can see from Earth could be outnumbered by a vast swarm of satellites.

Some professional astronomers raised alarms last spring, and again in November, after SpaceX launched batches of 60 Starlink satellites. These don't present a big problem yet, but when thousands more shine down on us, they could interfere with our ability to detect the farthest, faintest objects in the universe — the ones that give us a portal into the distant past.

SpaceX has plans to launch 30,000 more satellites, in addition to the 12,000 already approved by the FCC and FAA. Jonathan MacDowell, space historian and astrophysicist of the Harvard-Smithsonian Center for **Astrophysics**, predicts that other companies are likely to launch “mega constellations” of their own satellites. The result could be cheap or free high speed Internet access for everyone on the planet, at the price of our view of timeless constellations.

astrophysics 天体物理学

Is it selfish to want to keep our night sky, knowing some people still don't have Internet access? Maybe. But many of the disconnected surely feel a connection to the night sky, too.

MacDowell says one good compromise solution would be an international agreement, similar to a space junk pact negotiated through the **Interagency** Space **Debris** Coordination Committee. Through that agreement, companies with plans to launch satellites now design them so they fall to Earth after 25 years. A similar agreement might encourage people to design satellites with minimal impact on our view.

interagency 跨部门的

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While the satellites themselves can help connect people to one another, the stars can also help us feel a connection — to others around the world and to people throughout history who have gazed upwards and been inspired.