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WEEKLY August 27-September 2, 2022

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Science and technology news www.newscientist.com



The columnist Beronda L. Montgomery on living walls p28 Aperture Stunning images that help explain scientific concepts p30 Letters Grappling with the mysteries of early Earth p32 Culture The making of the Gaia hypothesis, as told in letters p34 Culture columnist Sally Adee on two noir-inflected novels p36

Comment

Space for everyone

Some scientists are unhappy about the James Webb Space Telescope's data being made public immediately, but these images should be for all, says **Jacob Aron**

HEN the first image from the James Webb Space Telescope (JWST) was unveiled by US president Joe Biden on 11 July, I was stunned. Even the low-quality video stream I was watching made it clear that JWST's "deep field" picture, containing thousands of galaxies and billions of stars, was something special, but the real fun began once I downloaded the high-resolution image and could explore the cosmos at leisure.

I wasn't alone – my Twitter feed was full of people sharing their favourite finds and revelling in the sheer majesty of it all. And beyond the pretty picture, teams of scientists around the world had already begun analysing the newly released data, hoping to be the first to unlock its secrets.

New Scientist has already published dozens of stories on the work these teams are doing. But some researchers are unhappy about the pace at which JWST papers are coming out, arguing that it isn't possible to produce good science in just days or weeks, and that a more limited release of data to a select pool of researchers would have been preferred.

I disagree, for two reasons.
The first is that I strongly believe science done in public is always better than science done in private, because more eyeballs means more scrutiny of the results. Formal peer-review in a top-tier scientific journal is important, but not infallible.

Take the case of supposed



arsenic-based bacteria, which was published in *Science* in 2010 and began unravelling just days after other researchers saw the paper. Or a claimed technique for turning adult cells into stem cells, published in *Nature* in 2014 and retracted six months later under a wave of controversy. Those cases had minimal impact on the world, but a 1998 paper in *The Lancet* that falsely linked the MMR vaccine with autism reverberates today, years after it was retracted.

It is unlikely that incorrect research in astronomy could have a similar effect, but by making JWST's data public, researchers everywhere can investigate it, and interrogate each other's results, immediately. What's more, reporting on this process, as my colleague Leah Crane did with her story on competing claims for the most distant galaxy discovered by JWST, shows science as it really is: a messy endeavour that inches towards conclusions, rather than handing down iron-clad truths.

The second reason is perhaps more selfish, but I think equally important. JWST cost \$10 billion, the majority of which came from NASA's budget, but the European and Canadian space agencies also contributed. All three are

ultimately funded by taxpayers in Europe and North America, so in a very real sense, I paid for JWST, as did many *New Scientist* readers. Why shouldn't we be able to enjoy its images, as soon as they are out?

Some scientists argue this is unfair – yes, the telescope is publicly funded, but people have devoted decades of their career to designing, building and launching it. Shouldn't they get a crack at the data before some random astronomer scoops their find?

I have sympathy, but I think ultimately the public interest outweighs the need for career progression. In 2014, I reported live from mission control as ESA's Philae lander touched down on the surface of comet 67P. There was massive public excitement about the mission, and the photos were stunning – at least those we were allowed to see.

Philae's mothership, Rosetta, had a high-resolution camera that took thousands of photos, but thanks to ESA rules allowing the camera team a year to analyse the data in private, only a handful were released in real time. Millions of space enthusiasts were deprived of the ability to follow Rosetta and Philae's journey in full—something that won't happen with JWST. I can't wait to see what it reveals next.



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