

URL: <https://stvp.stanford.edu/clips/solve-problems-on-a-faster-timescale>

Planet Labs Co-Founder and CEO William Marshall explains a principle familiar to engineers: To affect a system, data on it must be gathered faster than the timescale of change. He says daily images of Earth will capture conditions quickly enough to address global challenges such as deforestation and natural disasters.



Transcript

Recently, I mean, like 1970, recently on geological times scales at least or evolutionary timescales, we realized that we are on a spaceship ourselves it's called the Earth and we've all got to take care of it.. And this is where I think that we fit in now which is really just my second to last slide which is I think there is a set now of global sensing companies that are starting to arise and that's what I'm -- I think of us as this company that helps out the sensor systems around the whole Earth, so that we can take the data of it regularly enough to do something about it.. Most of you guys are engineers and you probably know that in order to effect a system, you have to take data about it on faster than the timescale of change of that system.. So if you're tumbling, you need to take data on how you're tumbling on faster than the timescale of the tumbling, kind of obvious.. Well, with our spaceship Earth, we're not taking data on a fast enough timescale of all the things that we're affecting the planet with.. And so if you take imagery, of say once a year of the planet, but deforestation is happening on days and weeks, that's not very useful.. By trying to get us data that happens on a daily basis we hope to get inside that decision-making loop such that we can help us to steer and steward the planet better.. But I think we'll be one of many companies doing that kind of thing, so I put us in that sort of perspective.. I also put us in the perspective of the last point I was talking about, this is about this is the macroscopic challenge of all times, sustainable upkeep of our environment.. We have already wiped out a massive fraction of the species on this planet..

That's why it's called the sixth major extinction event that we have done in the last sort of hundred years and we need to do something about that and this is the macroscopic challenge of our time and I really hope that we as a company fit into that by helping us to get us the data that we need.. And just to give a very concrete example, in Nepal we actually donated all of our imagery of Nepal to the aid efforts that were going on over there and that's -- and actually just a couple of days ago we heard back that we had found two -- basically there was a crowd source campaign to look through our imagery and find where problems had happened, where mudslides had gone on and so forth and there were two villages that were found or towns that were found that weren't on the maps of all the aid agencies and now are getting relief effort, because of our data.. And that's just one example, but that's something that I think is nice, and really the whole reason why we started the company..