



PLANETARY HEALTH WEEKLY

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THE TERRIFYING PHENOMENON THAT IS PUSHING SPECIES TOWARDS EXTINCTION

Scientists are alarmed by a rise in mass mortality events, when species die in their thousands. Is it all down to climate change? There was almost something biblical about the scene of devastation that lay before Richard Kock as he stood in the wilderness of the Kazakhstan steppe. Dotted across the grassy plain, as far as the eye could see, were the corpses of thousands upon thousands of saiga antelopes. All appeared to have fallen where they were feeding. Some were mothers that had travelled to this remote wilderness for the annual calving season, while others were their offspring, just a few days old. Each had died in just a few hours from blood poisoning. In the 30C heat of a May day, the air around each of the rotting hulks was thick with flies. The same grisly story has been replayed throughout Kazakhstan. In this springtime massacre, an estimated 200,000 critically endangered saiga, around 60% of the world's population, died. "All the carcasses in this one of many killing zones were spread evenly over 20 sq km," says Kock, professor of wildlife health and emerging diseases at the Royal Veterinary College in London. "The pattern was strange. [Read More on The Guardian](#)



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RETREAT FROM HUMAN RIGHTS AND ADVERSE CONSEQUENCES FOR HEALTH

The international environment for human rights has rapidly deteriorated in recent years. Populist leaders have come to power in an increasing number of countries, often on political platforms that are explicitly hostile to human rights. These leaders tend to portray respect for human rights as an inconvenient obstacle to their agendas rather than as an essential limit on their power. Meanwhile, many governments that have traditionally been proponents of human rights, although often with records that do not entirely reflect human rights, have encountered internal challenges from authoritarian populists or far-right political parties that have turned their focus inward and weakened their willingness to stand up for human rights internationally.

[Read Report on Jama Network](#)





North Atlantic Right Whales Are Near Extinction. We Can Avert It.

Only about 450 of Atlantic whales remain. Once decimated by commercial whaling, the right whale had been thought to be making a slow return in recent decades, with its numbers rising to about 480 in 2010 from approximately 270 in 1990. But their recovery has since faltered and their numbers are declining. If we don't act now, in a little over 20 years, the breeding females alive today may all disappear, leaving little hope for the species. Eighty percent of known right whale deaths are caused by humans. Our actions may be unintentional but they have been catastrophic. We have turned right whales back from the edge of extinction before. We can do so again. To save them now, several steps are required. First, we have to reduce ship strikes further. Right whales are on the move in Canada, seeking new feeding grounds in the Gulf of St. Lawrence. Canada should institute mandatory, seasonal ship speed reductions there. Second, we need to eliminate the dangerous, inhumane gantlet of fishing line. Finally, the federal government and research institutions supported by private foundations should invest in the research and development of "ropeless" fishing technologies that raise traps electronically. This would do away with a lot of rope in the lobster and crab fisheries.

[Read More on The New York Times](#)

BIOCHAR COULD REPLACE UNSUSTAINABLE PEAT MOSS IN GREENHOUSE INDUSTRY

Plant lovers are familiar with peat moss as the major component of potting mix, but harvest of the material is becoming unsustainable. Not only is peat being removed faster than it can re-form, its use in potting mix contributes to the release of carbon dioxide into the atmosphere. "Peat bogs naturally store carbon. When peat moss is harvested, there's a transfer of a global carbon sink into a net source. That's because within a couple growing seasons, most of the peat moss from the potting mix is either mineralized by microbes or thrown out and decomposed. Either way, carbon dioxide is released," says Andrew Margenot, assistant professor in the Department of Crop Sciences. "Biochar could even be made from a greenhouse operation's own waste, if there are trimmings from plants or old peat moss." Margenot emphasizes that 'biochar' refers to a very broad class of material that can vary greatly in its properties depending on the pyrolysis temperature and the feedstock used. When organic material decomposes naturally, the process releases carbon dioxide. But biochar decomposes very slowly, potentially on the order of centuries, so when organic material is turned into biochar, the carbon is essentially sequestered and can't escape back into the atmosphere.

[Read More on Bio Fuel Daily](#)



The Dirty Industry of Fast Fashion Causes Environmental "Emergency"

The average shopper buys much more clothing than they did a few decades ago, but keeps items half as long, a cycle of clothing made fast and cheap, worn out fast, and then discarded fast. The US and Europe have led the way in this behavioral shift, but the pattern is repeating now in countries such as China. "By 2030, there will be 5.4 billion people in the global middle class, up from 3 billion in 2015," the UNECE says. "This will lead to an increased demand for clothes and other goods that define middle-income lifestyles. If consumption continues at its current rate, there will be three times as many natural resources needed by 2050 compared to what was used in 2000." Resource use isn't the only concern. The apparel industry is also a heavy polluter, due to the energy required to grow raw materials and produce fabrics, as well as the number of chemicals involved in dyeing and finishing all that fabric. Cotton farming, in particular, uses a disproportionate amount of the world's insecticides. In a report released in February, ClimateWorks Foundation and Quantis, a sustainability consultancy, calculated that the apparel and footwear industries together account for 8% of the world's greenhouse gas emissions, and unless something changes fast, apparel's climate impact will increase 49% by 2030. [Read More on Quartz](#)

[See Also: New Report Promotes Need for Fashion Industry Action](#)



Do Not Intervene to Speed Up Birth Unless Real Risks Involved, Advises WHO

Medical staff and midwives should not intervene to speed up a woman's labour unless there are real risks of complications, says the World Health Organisation, warning that too many women are not having the experience of natural childbirth that they want. "Many women want a natural birth and prefer to rely on their bodies to give birth to their baby without the aid of medical intervention," says Ian Askew, director of the WHO's department of reproductive health and research. "Even when a medical intervention is wanted or needed, the inclusion of women in making decisions about the care they receive is important to ensure that they meet their goal of a positive childbirth experience." Every year there are about 140 million births, most of which are uncomplicated. Yet women are increasingly being subjected to medical interventions in the name of risk-avoidance, which may be unnecessary and unwelcome to them, says the WHO.

[Read More on The Guardian](#)

[New Report: Intrapartum Care for a Positive Childbirth Experience](#)

Reducing Social Inequalities in Health: Moving From the 'Causes of the Causes' to the 'Causes of the Structures'

From its historical beginnings, research on social inequalities in health has been marked by a commitment to reducing health inequalities through political action. During the last decades, researchers have moved from describing and explaining health inequalities to proposing active interventions aimed at their reduction. During the same period, policies seeking to reduce health inequalities have been implemented in several European countries. Among these countries is Norway, where the 10-year National Strategy to Reduce Social Inequalities in Health was implemented in 2007. In this editorial, it will suggest how policy-oriented health inequality research can move forward, using the Norwegian experience in reducing health inequalities as an example.

[Read More on Sage Journals](#)



Kidney Infections: Focus on Women's Health

The Treatment services of kidney disease are quite limited in Nepal compared to its increasing epidemics. The government of Nepal is expanding dialysis services in every zonal hospital. It has already made dialysis and kidney transplantation services free of cost in all parts of the country. Nearly, 150 to 200 kidney transplants are carried out by the Shahid Dharma Bhakta National Transplant Centre every year. It has already conducted 410 kidney transplants with 97% success rate, which corresponds with the international standard, and is also an instigator of the first liver transplant in Nepal with two successful liver transplants so far.

[Read More on The Himalayan Times](#)



When WhatsApp's Fake News Problem Threatens Public Health

Not every fake news story is 100 percent false. But they are out of proportion with reality. That's the thing about social media. It can amplify real but statistically unlikely things just as much as it spreads totally made up stuff. What you wind up with is a murky mix of information that has just enough truth to appear credible. In remote areas of Brazil's Amazon basin, yellow fever used to be a rare, if regular visitor. Every six to ten years, during the hot season, mosquitoes would pick it up from infected monkeys and spread it to a few loggers, hunters, and farmers at the forests' edges in the northwestern part of the country. But in 2016, perhaps driven by climate change or deforestation or both, the deadly virus broke its pattern. Today, that pestilence is racing toward Rio de Janeiro and São Paulo at the rate of more than a mile a day, turning Brazil's coastal megacities into mega-ticking-timebombs. The only thing spreading faster is misinformation about the dangers of a yellow fever vaccine, the very thing that could halt the virus's advance. And nowhere is it happening faster than on WhatsApp.

[Read More on Wired](#)

SPOTLIGHT ON POLICY: From the Day They're Born-Violence Against Children with Disabilities in West Africa

Despite the building evidence on violence against children globally, almost nothing is known about the violence children with disabilities in low and middle-income countries (LMICs) experience. The prevalence of violence against children with disabilities can be expected to be higher in LMICs where there are greater stigmas associated with having a child with a disability, less resources for families who have children with disabilities, and wider acceptance of the use of corporal punishment to discipline children. This study explores violence experienced by children with disabilities based on data collected from four countries in West Africa- Guinea, Niger, Sierra Leone, and Togo. Results illuminate that children with disabilities experience violence more than non-disabled children, episodes of violence start at birth, and that how children with disabilities participate in their communities contributes to their different experiences of violence.

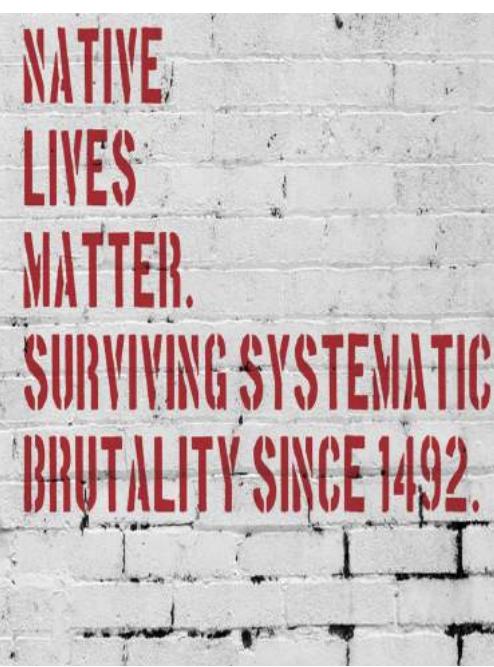
[Read More on BMC Public Health](#)



SPOTLIGHT ON INDIGENOUS HEALTH: Broken System, Why is a Quarter of Canada's Prison Population Indigenous?

In the wake of the acquittal of Gerald Stanley in the death of Colten Boushie, there have been loud calls for reform to address Canada's blatant systemic racism in the criminal justice system. The Canadian justice system works against Indigenous people at every level, from police checks and arrests to bail denial and detention, sentencing miscarriages and disparities and high incarceration rates. Not only are Indigenous people more likely to be imprisoned, but they are also more often subjected to some of the most restrictive levels of punishment, including segregation, forced interventions, higher security classifications, involuntary transfers, physical restraints and self-harm. First, Indigenous people are more often criminalized and imprisoned for acts that are linked to poverty, lack of educational and employment opportunities, lifestyles of substance use, mental health concerns and histories of sexual abuse, violence and trauma, in other words, colonialism. Second, prisons are characterized by authoritarianism, power imbalances, restriction of movement and activities, isolation, lack of freedom of association and enforcement of sometimes arbitrary and trivial demands. Prison environments often reflect and even perpetuate the very trauma and violence experienced by Indigenous people.

[Read More on The Conversation](#)





QUOTE OF THE WEEK

Commenting on the massive massacre of 200,000 critically endangered saiga in Kazakhstan:

"The pattern was strange. They were either grazing normally with their newborn calves or dying where they stood, as if a switch had been turned on. I've never seen anything like that."

Richard Kock, Professor of Wildlife Health and Emerging Diseases, Royal Veterinary College in London

EVENTS TABLE

DATE	CONFERENCE	LOCATION	REGISTER
April 20-22	BioVision Alexandria 2018	Alexandria Egypt	http://www.bibalex.org/bva2018/home/StaticPage.aspx?page=69
April 27-29	Pegasus Conference: From Evidence to Action	Toronto Canada	https://www.eventdex.com/PEGASUS2018/
May 25-27	Bethune Round Table: The Role of the Trainee in Global Surgery	Toronto Canada	https://bethuneroundtable.com/
May 29-31	Planetary Health Alliance Annual Meeting	Edinburg Scotland	https://planetaryhealthalliance.org/annual-meeting
June	McGill University Summer Institutes in Infectious Diseases and Global Health	Montreal Canada	http://mcgill-idgh.ca/courses/tuberculosis-research-methods/
Oct 8-12	5th Global Symposium on Health Systems Research	Liverpool England	http://healthsystemsresearch.org/hsr2018/



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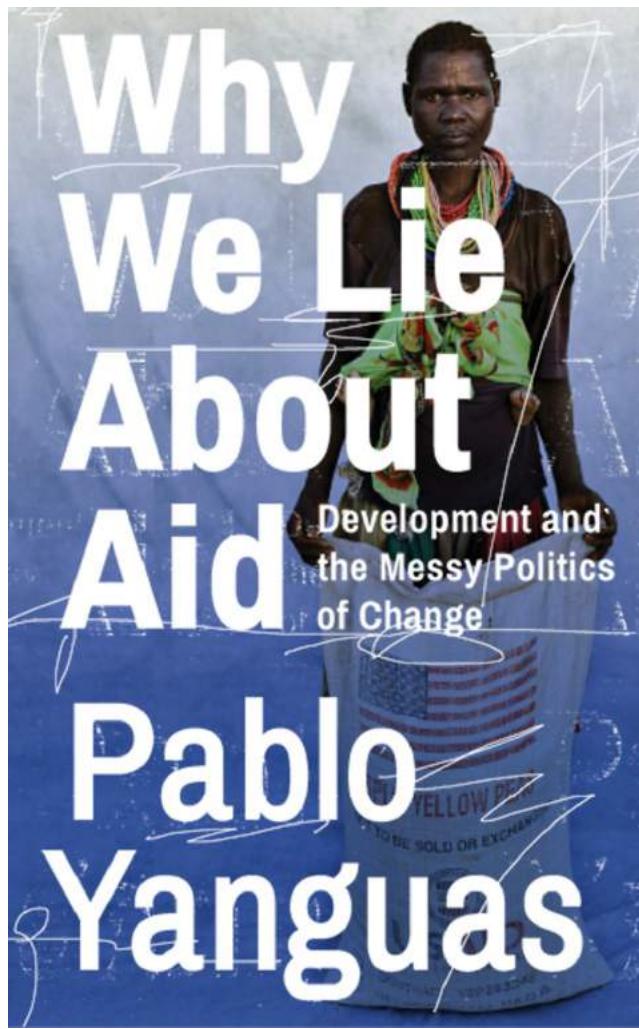
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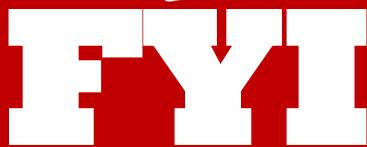
NEW BOOK: WHY WE LIE ABOUT AID



Foreign aid is about charity. International development is about technical fixes. At least that is what we, as donor publics, are constantly told. The result is a highly dysfunctional aid system which mistakes short-term results for long-term transformation and gets attacked across the political spectrum, with the right claiming we spend too much, and the left that we don't spend enough.

The reality, as Yanguas argues in this highly provocative book, is that aid isn't, or at least shouldn't be, about levels of spending, nor interventions shackled to vague notions of 'accountability' and 'ownership'. Instead, a different approach is possible, one that acknowledges aid as being about struggle, about taking sides, about politics. It is an approach that has been quietly applied by innovative development practitioners around the world, providing political coverage for local reformers to open up spaces for change. Drawing on a variety of convention-defying stories from a variety of countries, from Britain to the US, Sierra Leone to Honduras, Yanguas provides an eye-opening account of what we really mean when we talk about aid.

[**Read More on Zed Books**](#)



HOW BIOFUELS FROM PLANT FIBERS COULD COMBAT GLOBAL WARMING



In recent years, biofuels produced from corn have emerged as a fuel source to power motor vehicles and, perhaps, airplanes. But corn is problematic as a biofuel source material. It's resource-intensive to grow, creates many environmental impacts, and is more useful as food. A study from Colorado State University finds new promise for biofuels produced from switchgrass, a non-edible native grass that grows in many parts of North America. Researchers chose a study site in Kansas since it has a cellulosic biofuel production plant, one of only three in the United States. The team used DayCent, an ecosystem modeling tool that tracks the carbon cycle, plant growth, and how growth responds to weather, climate and other factors at a local scale. It was developed at CSU in the mid-1990s. The tool allows scientists to predict whether crop production contributes to or helps combat climate change, and how feasible it is to produce certain crops in a given area. Previous studies on cellulosic biofuels have focused on the engineering details of the supply chain. These details have included analyzing the distance between the farms where the plant material is produced, and the biofuel production plant to which it must be transported. However, the CSU analysis finds that the details of where and how you grow the plant material is just as significant or even more significant for the greenhouse gas footprint of the biofuel, said Field.

The biofuel industry is experiencing challenges, due to low oil prices. The production plant referenced above has new owners and is undergoing a reorganization. But the future looks bright for biofuels and bioenergy, said Field. "Biofuels have some capabilities that other renewable energy sources like wind and solar power just don't have," said Field. "If and when the price of oil gets higher, we'll see continued interest and research in biofuels, including the construction of new facilities."

[**Read More on Bio Fuel Daily**](#)



WHEN TWENTY-SIX THOUSAND STINKBUGS INVADE YOUR HOME



Of the five-thousand-odd species of stinkbug in the world, the brown marmorated kind is the most destructive, the most annoying, and possibly the ugliest. It is roughly the size of a dime, although thicker, but its head is unusually small, even for an insect, which gives it an appropriately thuggish look. Its six legs prop its shield-shaped body up in the air, as if they were pallbearers at the funeral of a Knight Templar. Its antennae are striped with bands of dark and light, while its eyes, should you get close enough to gaze into them, are the vivid red of an alarm clock at night. The “marmorated” in its name means “marbled,” but “mottled” is closer to the truth.

The defining ugliness of a stinkbug, however, is its stink. Olfactory defense mechanisms are not uncommon in nature: wolverines, anteaters, and polecats all have scent glands that produce an odor rivalling that of a skunk; bombardier beetles, when threatened, emit a foul-smelling chemical hot enough to burn human skin; vultures keep predators at bay by vomiting up the most recent bit of carrion they ate; honey badgers achieve the same effect by turning their anal pouch inside out. All these creatures produce a smell worse than the stinkbug's, but none of them do so in your home.

Slightly less noxious but vastly more pervasive, the smell of the brown marmorated stinkbug is often likened to that of cilantro, chiefly because the same chemical is present in both. In reality, stinkbugs smell like cilantro only in the way that rancid cilantro-mutton stew smells like cilantro, which is to say, they do not. In fact, the smell produced by a stinkbug is dusty, fetid, lingering, and analogy-proof. A stinkbug smells, unhappily for us all, like a stinkbug.

Although concentrated urban areas like Manhattan have, heaven knows, problems of their own, bedbugs, subway rats, cockroaches so big they could register for kindergarten—they are seldom the target of large-scale stinkbug invasions. But smaller cities, towns, suburbs, exurbs, and rural areas all strike stinkbugs as prime real estate, because they enable the bugs to do what they do best. In the fall, winter, and spring, brown marmorated stinkbugs take up residence in private homes, sometimes by the tens of thousands. Then, in the summer, they quietly let themselves back outside, into nearby gardens, orchards, woods, and farms, and steadily set about destroying them.

[Read More on The New Yorker](#)



The first fully autonomous ground vehicles hitting the market aren't cars or delivery trucks—they're robo-farmhands. The Dot Power Platform is a prime example of an explosion in advanced agricultural technology, which Goldman Sachs predicts will raise crop yields 70 percent by 2050. But Dot isn't just a tractor that can drive without a human for backup. It's the Transformer of ag-bots, capable of performing 100-plus jobs, from hay baler and seeder to rock picker and manure spreader, via an -arsenal of tool modules. And though the hulking machine can carry 40,000 pounds, it navigates fields with balletic precision.

Farmers map their land using an aerial drone or GPS receiver, upload that data to the Dot controller, a Microsoft Surface Pro, then unleash the beast into the field. The tireless machine can run around the clock, pausing only to refuel its 75-gallon -diesel tank, and will save growers an estimated 20 percent in fuel, labor, and equipment costs. The first six Dots will be sold to farmers in grain-rich Saskatchewan, Canada, this spring (before a wider rollout next year). Get ready for a tech-tended bumper crop.

Navigation Brain

If the machine encounters an object that wasn't included on the drone or satellite mapping imagery, it stops and beams a video to its remote operator.

Mounting Arms

The farmer uses a remote control to position Dot alongside the desired tool attachment, such as a seeder. Then four hydraulic arms hoist and secure the apparatus.

Smart Wheels

Each of the sensor laden wheels can turn independently. The ag-bot's electric and hydraulic guidance system tracks steering and wheel slippage to enable tight maneuvers.

Anticrash Sensors

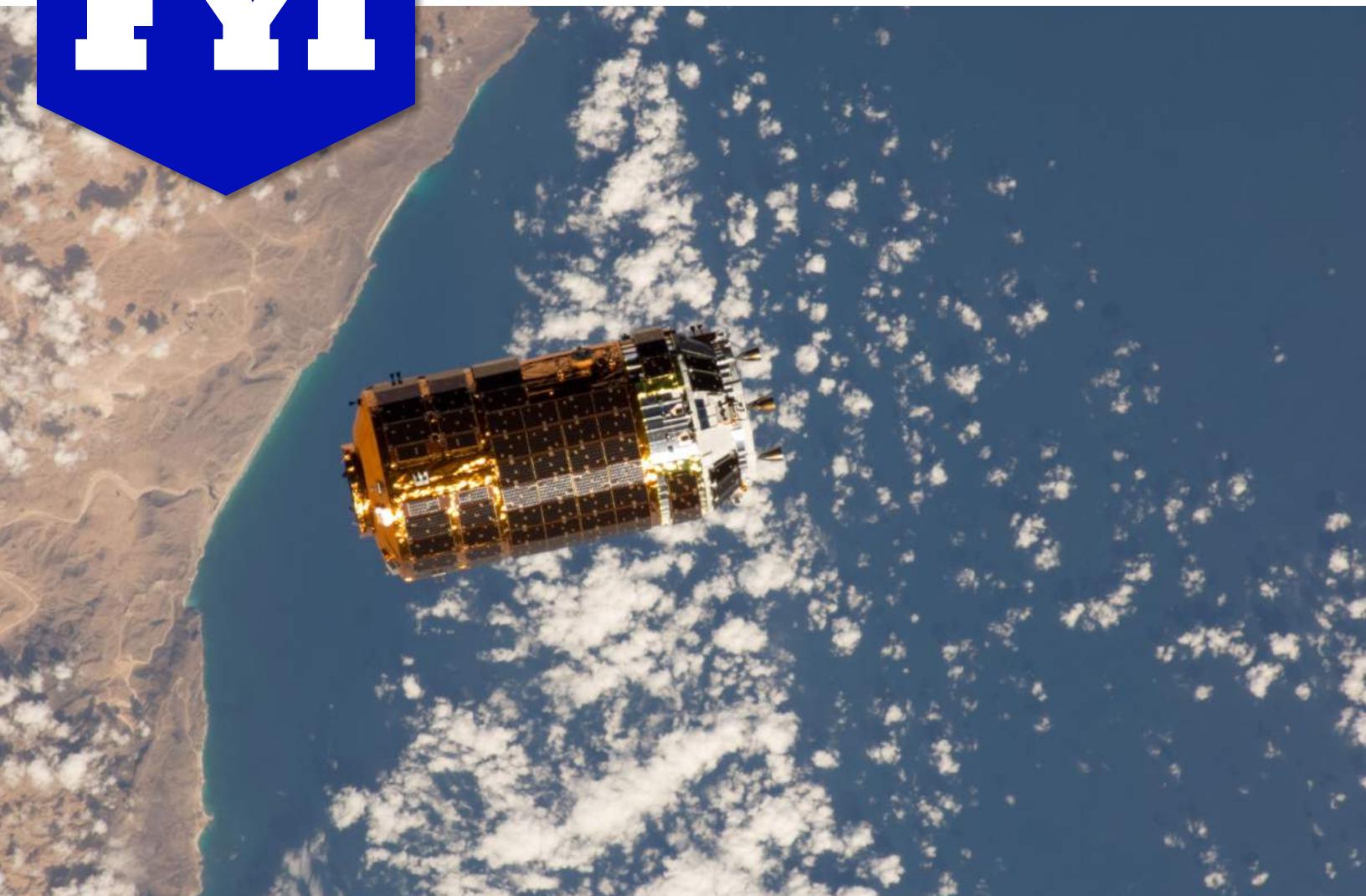
Radar, light sensors, and object recognition cameras are potential features to help the robot tractor avoid obstacles.

Synchronization

Engineers are working on an upgraded communication system that will allow multiple Dots to cooperate in the field.



LAOS AND NEPAL TO RIDE JAPAN'S MICROSATELLITES INTO SPACE



A University of Tokyo team plans to launch about 20 microsatellites over the next three years in collaboration with more than 20 countries, including Laos and Nepal, to supplement telecommunications infrastructure. In addition to improving mobile communications in emerging nations, the project will also help them into space and perhaps spur future demand for satellites and related services.

In Laos, mobile communication coverage can be spotty, hindering efforts to monitor the environment. Nakasuka's satellite network will supplement existing telecommunications infrastructure, facilitating measurement of water levels and temperatures from sensors installed in rivers, farmland and other locations. The information can be used to monitor flooding and other changes to the environment that can have dangerous consequences, such as spread of infectious diseases. The inexpensive satellites could prompt emerging countries to buy their own and motivate them to begin space efforts. Microsatellites also have relatively short development times of one or two years, about half that of larger satellites. This encourages businesses, colleges and labs to explore their potential. In the near future, individuals might be able to enter the satellite business.

[Read More on Nikkei Asian Review](#)

THE NUANCES THAT SEPARATE GOOD EDUCATORS FROM THE GREAT EDUCATORS



Most of us are making our decisions in education based on how we wish the world was working. Here's a prime example. We take offense when we are sitting at a restaurant or a café and we see a couple paying more attention to their phones, than to each other. In this same way, we are upset when a student enters our classroom looking at his or her smart phone. Check that... mesmerized by the phone screen. In each of these instances we've made the mistake of romanticizing how we believe the world should be.

For me, I see a student coming into my classroom, and he's giggling while watching a YouTube video, and I'm thrilled that this student is doing this. I'm happy that they are being amused, and doing what they like. Because that is what he wants to be doing in that moment. I'm not bummed out because I think what I have to say is so utterly important that it can't be missed. You see, I don't care about my own feelings. I'm not that important. This is what that student wants to do. This is what is going to put a smile on his face right then. Not me talking about today's agenda. So, here's the first take away. We need to check our egos at the door and realize that there is more to capturing student attention than most of us are aware of, and forcing attention only works a fraction as well as working harder to earn it.

In this post I promise to share four nuances that great educators are capitalizing on. These behaviors are what is differentiating them from everyone else, including those that are already good. The one minute take away from this article is that great education is driven by two things: Purpose and Attention. The individuals that understand their purpose best and can engage the attention of learners at the highest level are going to be the most successful practitioners. Always remember that the learners' attention is always right. If you don't have it, then you are NOT teaching, you are just practicing. That's why you need to focus on the things that you can control.

[Read More on The Medium](#)

A Friendly Parrot
Bruce's Mill Conservation Area
20 km North of Toronto
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