CHINA RESTRICTIONS HIT BIBLE APPS

Strict regulations remove Bible, videogame, and other apps from China’s Apple App Store.

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Editorial cartoons can be powerful media for expressing opinions and ideas with few or no words. This cartoonist is making a statement about recent gas prices. Do you think the image works to convey the artist's meaning? What do you think the picture is saying?

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UNITED STATES: Opportunity Rises over Atlanta
A 420-foot-tall elevator research lab towers over Atlanta. It will soon open to inspect the safety and performance of new elevator designs. TK Elevators’ tower is the largest elevator test structure in the Western Hemisphere, says Brasfield & Gorrie, the company that built it. The test site has multiple shafts that offer a view down into the nearby Atlanta Braves’ stadium and up over the Atlanta skyline. Some of these shafts will allow TKE to test twin elevators. That innovative design uses one elevator shaft with two cars which operate independently. One car travels a section of the shaft above the other. Twin elevators could save space in buildings and allow people to move faster between floors. But safety first! TKE must prove that the two won’t collide or collapse. TKE also hopes the facility will raise interest about the elevator industry among engineering students.

SPAIN: First Asturian Bible
In the Apostle John’s vision which is recorded in Revelation, he says he saw a great multitude from all the peoples and languages of the Earth gathered to worship before the throne of the Lamb of God. Bible translators have labored for centuries to bring God’s word to every corner of the Earth, in native tongues. Now about 200,000 people living in Spain can read the scriptures in their own language for the first time. It took about 30 years to translate the Bible into Asturian, the tongue of Asturias, a northern region of Spain. To accomplish the project, the Bible Society had first to teach Hebrew to Asturian linguists, who then collaborated with theologians, pastors, and other Bible translators to render the text faithfully into Asturian.

Liberia: Teen Returns Cash
What could you do with $50,000 cash in Liberia? A whole lot. Maybe that’s why it shocked people that a teenager who found that huge amount of cash gave it back to the person who lost it. Emmanuel Tuloe became a national hero when he returned $50,000 to its rightful owner. He was driving his motorcycle when he spotted the bundle wrapped in a plastic bag. “I was afraid because it was plenty (of money), and so I brought it home and gave it to my aunty to keep until the owner could ask for it,” he says. Meanwhile, businesswoman Musu Yancy was trying to track down the money she lost. She pleaded with people to help her. Emmanuel gave back every dollar he found. Proverbs 12:22 says, “Lying lips are an abomination to the Lord, but those who act faithfully are His delight.”
THAILAND: Eating with the Fishes

A flood-hit riverside restaurant in Thailand has become an unlikely dining hotspot after fun-loving foodies flocked to its water-logged deck to eat amid the lapping tide. The restaurant in Nonthaburi near Bangkok opened in February. But a series of severe tropical storms and monsoon rains raised the river’s water level to flood stage. Not to be deterred, Chaopraya Antique Café created a new dining experience which the owner dubbed “hot-pot surfing.” The term refers to what happens when a passenger boat passes on the river. Diners on the restaurant’s deck scramble to avoid waves from the boat’s wake. The combination of pandemic precautions and unexpected flooding could have caused the restaurant to go under. But light-hearted customers didn’t let the conditions put a damper on their dining. They enjoy the “hot-pot surfing” experience. And the owner is thankful to keep his establishment open and provide for his employees.

AUSTRALIA: March of the Red Crabs

Roads were closed. Beaches turned red with a writhing tide—not of water, but of crawling crabs. This annual migration has become Christmas Island’s largest tourist attraction. Each year, millions of Australia’s red crabs leave their burrows in the rainforest. With males leading the way, they march for miles through woods, across roads, streams, and rocks, to the beaches where they will spawn. According to the Parks Australia website, “the exact timing and speed of the migration is determined by the phase of the Moon.” The crabs instinctively know exactly when to leave their burrows to reach the beach at a receding high tide in the Moon’s last quarter. Each female crab lays up to 100,000 eggs in the surf. Hatchlings that aren’t eaten by predators live in tide pools while they mature into 5mm red crabs. Then miraculously, these tiny new creatures make their own march to the rainforest to join their kin.

BOSNIA: Spinning with Love

Bosnian citizen Vojin Kusic is literally spinning from love for his wife, Ljubica. Ljubica wanted her bedroom to face the morning Sun. So Mr. Kusic built a house to suit her. But this meant that the living room faced away from the road. The Mrs. complained that “she could not see people entering our front yard.” So Mr. Kusic did a major remodel. That was satisfactory . . . for a while. After the Kusics retired, their son and his wife moved in upstairs. Things got a little crowded. So Kusic decided to build a house for Ljubica that would fulfill her ever-changing desires. Kusic never went to college, but the self-taught builder designed and constructed a rotating house for his love. Electric motors and the wheels of an old military transport vehicle beneath the structure allow it to turn in a complete circle. Now his wife can choose her view at will—while also being reminded of her husband’s sacrificial love.

THAILAND: Eating with the Fishes

It’s a crab bridge!

Diners make the most of the high water levels.

The house rotates on old wheels.
Now Hiring: Metaverse Builders. Meta, formerly known as Facebook, Inc., plans to hire 10,000 people in the European Union over the next five years to work on a new computing platform. Recruiters are targeting folks in Germany, France, Italy, Spain, Poland, the Netherlands, and Ireland for the hiring drive. But what is the metaverse, anyway?

Think of it as the internet in 3-D. CEO Mark Zuckerberg describes his vision as a “virtual environment” you can go inside—instead of just looking at on a screen. It’s a world of virtual communities where people can meet, work, and play. Users connect via virtual reality (VR) headsets, augmented reality glasses, smartphone apps, or other devices. Activities like attending virtual concerts, taking a trip online, and buying digital clothing can happen inside the metaverse. Instead of seeing co-workers on a video call grid, employees could see them virtually or “teleport” into an office as a hologram.

But don’t expect a trip to the metaverse anytime soon. Meta warns it could take 10 to 15 years to fully develop products for the metaverse.

Meta isn’t the only group working on the metaverse. No single company will own and operate it. Other players include Epic Games. It has raised $1 billion from investors to build the metaverse.

Tech companies still have to figure out how to connect their online platforms to each other. Making it work will require agreement on a set of standards, so people aren’t separated into multiple ‘verses.

In October, Facebook, Inc., changed its name to Meta Platforms, Inc., or Meta for short. Zuckerberg says it’s no longer just a social media company. The social network itself is still called Facebook.

Facebook launched meeting software for companies, called Horizon Workrooms, to use with its Oculus VR headsets. But early reviews have been mixed.

Facebook uses personal data to sell targeted advertising. Executives want to use the same business model in the metaverse. That raises privacy concerns, especially since developers are still figuring out what the metaverse will do.

Of course, the metaverse could be the latest grand vision that doesn’t turn out as expected. Plenty of Zuckerberg’s plans have not materialized so far, like taking virtual vacations with faraway loved ones via a headset. Human plans may fail. God’s plans never do.

Many are the plans in the mind of a man, but it is the purpose of the Lord that will stand. —Proverbs 19:21

PRAY:
For the ability to trust God’s sovereignty over our lives.
A prosthetic-tailed dolphin named Winter fell ill in mid-November at a Florida aquarium. Experts from around the country attempted life-saving efforts. Sadly, the famous dolphin died while being held by caregivers.

God has compassion on all creation. (Psalm 136:25) And while being made in God’s image makes humans unique, God cares about animals too. (Luke 12:6-7)

Winter was two months old when her tail became entangled in a crab trap. The snare forced a tail amputation. The 2011 movie *Dolphin Tale* chronicled Winter’s recovery and the extraordinary effort to fit her with a prosthetic tail. Three years later, *Dolphin Tale 2* continued the story.

The *Dolphin Tale* movies put the Clearwater Marine Aquarium on the map internationally. “This place wouldn’t be here if it [weren’t] for Winter,” aquarium president James “Buddy” Powell says.

Winter died of twisted intestines. The damaged organs were impossible to reach through surgery. The dolphin had experienced intestinal issues before, but never like this, says Powell.

Aquarium staff worked around the clock to save 16-year-old Winter and minimize her pain.

“While we are heartbroken by Winter’s death, we are comforted knowing that our team did everything possible to give her the best chance at survival,” says veterinarian Shelly Marquardt.

Aquarium staff say the twisted intestine condition is found in stranded wild dolphins “as well as any living being with intestines.” They add, “Because of Winter’s injury and the distortion it caused in her body, she was more prone to facing health complications since her rescue.”

Shortly after Winter arrived in 2005, the aquarium partnered with the largest U.S. provider of prosthetic limbs to create her tail. Winter might have survived without one by using her side flippers to swim. But experts believe that would have led to skeletal misalignment and other health issues.

Dolphin skin is so thin it can be cut with a fingernail. So attaching the tail without harming Winter was a problem. Eventually, researchers created a soft silicone-like sleeve. The prosthetic tail slid snugly over the sleeve.

Winter’s rehab inspired people around the world. Fans—including autistic children and soldiers with missing limbs—made pilgrimages to visit her. As the dolphin’s final illness became known, the aquarium received thousands of support messages.

Aquarium officials say, “This amazing response reminds us of how deeply she has affected millions, including so many on their own health journey.”

_Are not five sparrows sold for two pennies? And not one of them is forgotten before God. . . . Fear not; you are of more value than many sparrows._

— Luke 12:6-7
Communist China has long sought to control how and what people read online. The Chinese government is getting even more stringent with internet enforcement. Religion is the latest sector to feel the squeeze.

Angela Zhang is an anti-monopoly expert. She describes China’s policy toward the internet as “very lax” until a few months ago. However, she says China has become “one of the most active and forceful jurisdictions in regulating the digital economy.”

With a market as large as China’s, even big companies like Apple take action. This fall, Apple removed the so-called “holy books” of Christianity and Islam from Apple’s app stores in China. The removals include popular U.S.-based Olive Tree Bible Software and other makers of reading and listening apps for both the Bible and the Quran. These books supposedly fall under a prohibitive Chinese law.

According to an Olive Tree spokesperson, the company must prove “that we are authorized to distribute an app with book or magazine content in mainland China.”

Religious services aren’t the only ones being removed. Another casualty of China’s strict new rules is Amazon’s online audiobook and podcast service, Audible. The company says it got the app store axe in China “due to permit requirements.”

A language-learning app and many video game apps, including Cars of New York and Sudoku New, vanished too. Chinese regulators have even tried limiting children’s video game playing. (See “China Changes Gaming Rules” at teen.wng.org/node/7062.)

Liu Pengyu is a spokesperson for China’s U.S. embassy. He says the Chinese government has “always encouraged and supported the development of the internet.” But he continues, “At the same time, the development of the internet in China must also comply with Chinese laws and regulations.”

Olive Tree hopes to obtain the necessary permit soon. The company takes the command to “go into all the world and proclaim the gospel” (Mark 16:15) seriously. It hopes to “restore our app to China’s Apple app Store and continue to distribute the Bible worldwide.”

Pakistan Data Management Services, which makes a Quran app, is also seeking the permit.

The Council on American-Islamic Relations (CAIR) condemned Apple’s actions, saying the company is enabling China’s religious persecution of Muslims and others. CAIR’s national deputy director, Edward Ahmed Mitchell, wants the decision reversed. “If American corporations don’t grow a spine and stand up to China right now,” he says, “they risk spending the next century subservient to the whims of a fascist superpower.”

China’s leaders know that controlling the minds and the spirits of its people is key to holding power over those people, and the Apostle Paul warned in Ephesians 6 that the real battles in this world are against rulers, powers, and authorities that oppose God Himself.

An iPhone customer stands outside the Apple store in Beijing, China.
Small farmers, raw milk fans, back-to-the-land supporters, and others who want local control of food systems are watching Maine. Voters there in November passed the nation’s first “right-to-food” constitutional amendment. Some believe the legislation will simply put people in charge of what they eat. Others say it could endanger food supplies and bring cattle pens to cities.

On the ballot, Maine asked voters whether they favored a full-on food sovereignty, or right-to-food, amendment to the state constitution. The measure passed. It declares that individuals have a “right to grow, raise, harvest, produce, and consume the food of their own choosing.”

For supporters, the language ensures the option to grow vegetables and raise livestock in an era when big business threatens local food supply ownership.

God made human bodies to run on food. Christians can trust that their heavenly Father knows their needs. This frees them to concern themselves primarily with God’s kingdom and eternal matters. (Matthew 6:31-33) But still, they must eat.

“Food is life,” says State Senator Craig Hickman, an amendment supporter. “I don’t understand why anyone would be afraid of saying so out loud in the constitution.”

Opponents of the amendment say the wording represents a threat to food safety and animal welfare. They say it could embolden residents to raise cows in city backyards or fish commercially without a license.

Maine Representative Billy Bob Faulkingham proposed the change. He calls the measure “the Second Amendment of food”—comparing it to the U.S. constitutional amendment that assures the right to bear arms.

Faulkingham says the amendment guarantees people can do things like save and exchange seeds if they don’t violate public or property rights.

But Julie Ann Smith of the Maine Farm Bureau believes the amendment could compromise the food supply. “We think it’s very dangerous to have the words ‘to consume the food of your own choosing,’” she says. Smith fears residents could choose to consume uninspected, unsafe food.

Political scientist Mark Brewer agrees that the amendment’s language is vague. “If you want to raise cattle within the city limits when city laws say you can’t, but the constitution says you can—then what happens?”

Heather Retberg runs Quill’s End Farm in the small town of Penobscot, Maine. She says the amendment allows self-sufficiency in rural communities. She think the amendment could help address the problem of “food deserts,” where residents don’t have enough access to healthy food.

“This shifts the power to the individuals,” Retberg says. “It gives us more voice in how we want our food systems to be.”
Murano, Italy, is famous for its gifted glass masters. These artists craft glittering, exquisite, colored vessels, panes, ornaments, sculptures, and more as they toil over super-heated furnaces. But a global surge in the cost of methane gas may cool creativity—and the potential for sales—for these fine artists.

Glassblowers know that their furnaces must burn at a very high temperature. In order to create beautiful glass art, furnaces must maintain heat around the clock. If a furnace cools, its costly ceramic crucible will break. That crucible holds the molten material that artists transform into breathtaking objects. But rapidly rising methane gas prices make powering the furnaces extraordinarily expensive.

Italian law mandates that artists use methane gas to heat their furnaces. Methane is a gas that burns at temperatures high enough to create crystal-clear glass. In 2021, the price of methane in Italy jumped five times higher than normal. Shipping delays, more demand for energy, and cuts in supplies are causing the sky-high leap. Glassblowers have no choice but to pay the shocking price tag out of pocket. In many cases, the artists can’t raise prices on their art high enough to cover the exorbitant cost of gas without losing customers.

“People are desperate,” says Gianni De Checchi. He is president of a Venice, Italy, association of artisans. “If it continues like this, and we don’t find solutions to the sudden and

Late last summer, the U.S. government pulled the plug on $300-per-week bonus checks for unemployed Americans. The bonuses were intended to help citizens who had lost their livelihoods while pandemic restrictions limited operations. After the extra paycheck supplements ended, folks would snap up millions of empty jobs, right? Wrong. Employers wait with “Help Needed” postings galore. Where are all the job seekers?

Labor shortages have persisted longer than economists expected. The hardest hit industries are retail, construction, food service, and manufacturing.

Companies eager to add workers have posted a near-record number of available jobs. Yet unemployment remains elevated. Are people simply not working? And if so, how are they paying their bills?

Economists see many reasons millions of Americans aren’t returning to the workforce. Some still fear contracting

The pandemic appears also to have caused a priority re-evaluation. People like Rachel Montgomery say they’ve decided to spend more time with family. Montgomery lost a catering job last year. She says she’s “pickier” about where she’ll work now.

“Once you’ve stayed home with your kids and family like this, who wants to physically have to go back to work?” Montgomery asks.

Others want more work flexibility. Richard von Glahn of Missouri Jobs with Justice says, “Employers have a role in creating a work environment and offering a package that provides workers the security they need.”

Plus, laid-off workers received three stimulus checks in 18 months in addition to the federal jobless aid. They may have built larger cash cushions than they had before the pandemic. Plumper bank accounts keep some folks from rushing back to work.

Sarah Hamby is a job seeker. But the positions available now require skills she does not have. “I feel too old to go off and get educated or trained to do other type of work,” she says.

God made humans to work. Work is one way of obeying and honoring the Creator just as it was for Adam and Eve—in the garden and after. (Genesis 2:15, 3:17-19) Sin made work more difficult, but its importance remains. The Bible says, “If anyone is not willing to work, let him not eat.” (2 Thessalonians 3:10)

Rosalie Drago is Commissioner of Labor for Suffolk County, New York. After a couple of unpredictable years, she believes people are waiting to see what happens next. “There’s been a lot of talk about ‘people don’t want to work,’ and that’s not the case,” Drago says. “People are trying to figure out what’s stable.”

abnormal gas prices, the entire Murano glass sector will be in serious danger.”

Italy’s glassblowing tradition has been passed through generations for 1,200 years. Today, many of the world’s best glassblowers live in Murano, Italy. They settled there in 1291 after authorities forced them out of Venice. Some say that the move came out of a fear of furnaces starting fires. But many people say that by sending all glassblowers to Murano, the Italian government preserved the art’s closely guarded secrets.

Generation after generation, the glassblowing tradition survives. Family members of glassblowers watched carefully and learned the secrets of creating the delicate glass art.

John Almaguer is a glassblower who studied under the masters in Murano. They taught him how to pull a red-hot puddle of “lava” (what the artists call the glowing liquid glass) out of the fiery furnace and transform it into a beautiful piece of art by twisting it, stretching it, reheating it, and carefully blowing air into it—all before the glob cools. Today, Almaguer creates glass art in his North Carolina studio. He named one of his favorite pieces Divine Covenant. Through his art, Almaguer gives glory to God, the Master Artist.
Rancher Rusty Kemp for years grumbled about rock-bottom prices from meat plants for his cattle, even as the cost of beef at grocery stores kept climbing. In the 1970s, 35 cents of every dollar spent on food went to ranchers and farmers. Now they get only 14 cents.

So Kemp launched an audacious effort to raise more than $300 million from ranchers. His plan? For ranchers to build a plant themselves, cutting out the middleman and putting their future in their own hands.

Kemp intends to build the Sustainable Beef plant near North Platte, Nebraska. Other groups are making similar moves in Iowa, Idaho, and Wisconsin.

The seasoned cattleman and his neighbors blame the low prices on consolidation (businesses combining or being bought by others) in the beef industry. Currently four companies—Cargill, JBS, Tyson Foods, and National Beef Packing—control over 80% of the U.S. beef market. Those processors have more power to set prices.

Since 2016, the largest processors’ profits have steadily increased. Meanwhile, prices paid to ranchers have barely budged.

Operating the new plant will be a big challenge. Its huge competitors run highly efficient plants and can sell beef at prices that smaller operators will struggle to match.

The question is whether smaller plants can pay ranchers more and still make a profit themselves. An average 1,370-pound steer is worth about $1,630. But that value must be divided between the slaughterhouse, feed lot, and the rancher, who typically bears the largest expense of raising the animal for more than a year.

Small plants are much less efficient. It costs more to slaughter each animal. Unless smaller plants can keep expenses down, they will need to find customers who will pay more for their beef or manage with a lower profit margin than the big companies.

The biggest challenge, for both large and small plants, is a shortage of workers.

However, the ranchers say they will have some advantages, including more modern equipment. Besides paying ranchers and employees more and encouraging ranchers to invest, the hope is that their success will spur more plants to open. The new competitors will give ranchers more options.

David Briggs, the CEO of Sustainable Beef, knows the difficulty the plant faces. But “cattle people are risk takers and they’re ready to take a risk,” Briggs says.

For the scripture says, “You shall not muzzle an ox when it treads out the grain,” and, “The laborer deserves his wages.”

— 1 Timothy 5:18

As Christians, we’re called to do business not just for our own benefit, but for others and for God’s glory. The story of the ranchers helps us consider business concepts of the middleman, consolidation, competition, and efficiency.
Rebranding Reboot

Most rebranding involves careful thought and broad market research. The following worked so well, few people remember the originals:

Pete’s Super Submarines ➤ Subway
Pete’s Super Submarines was founded in 1965. The name recognized Peter Buck, who had loaned the restaurant’s 17-year-old founder, Fred DeLuca, $1,000 to launch his hoagie empire. But the name was confusing. People heard Pete’s Submarines as “Pizza Marines.” Buck and DeLuca chose to rebrand as Subway in 1968.

Brad’s Drink ➤ Pepsi
In 1893, North Carolina pharmacist Caleb Bradham created a bubbly new beverage. Borrowing part of his last name, he called it Brad’s Drink. But the name lacked pop. After five years, he rebranded to Pepsi-Cola. The made-up word Pepsi came from dyspepsia, meaning “indigestion.” Ironic, since Bradham’s so-called “healthful” cola supposedly aided digestion.

Open Kettle ➤ Dunkin’ Donuts ➤ Dunkin’
William Rosenberg started slinging doughnuts and coffee in 1948 at “Open Kettle.” Two years later, he rebranded as “Dunkin’ Donuts.” That alliterative name stuck until 2018 when executives dropped that seemingly all-important second word. Naming expert Laurel Sutton explains why dropin’ donuts worked: “Rebranding efforts succeed when the new brand is already in use.” She cites Kentucky Fried Chicken’s KFC rebrand triumph. As Dunkin’s ad points out, “Our friends call us Dunkin.”

Blue Ribbon Sports ➤ Nike
Nike is one of the most recognized brands on Earth. But first, there was Blue Ribbon Sports. (Yawn.) Track athlete Phil Knight and coach Bill Bowerman began the company in the 1960s. In 1971, employee Jeff Johnson dreamt up a new name (literally!) and proposed Nike, after the Greek goddess of victory. Swoosh! That was a winning rebrand.

Facebook CEO Mark Zuckerberg announced the company’s new name.

In November, Facebook, Inc., changed its name to Meta Platforms, Inc., joining countless businesses that have rebranded. Their stories show that rebranding sometimes works—and sometimes fails miserably.

Names are important. “A good name is to be chosen rather than great riches.” (Proverbs 22:1) The verse is speaking of human reputations, but it can hold true for brands too.

Rebranding involves changing a name, logo, or even direction for an established brand. Bad publicity, a purpose shift, or an energizing refresh are some reasons that companies might rebrand.

But rebranding is risky: If consumers dislike the new brand or if it doesn’t catch on, a bad situation could get worse.

Here are two rebrandings that didn’t succeed:

Netflix ➤ Qwikster
Netflix announced in 2011 that it would split into two services. The online streaming branch would remain Netflix; the DVD rental division became Qwikster. But customers suddenly had to pay for two services instead of one. In no mood to accept the “qwirky” name, they lambasted it. Netflix dropped Qwikster within months.

Tribune Publishing ➤ Tronc ➤ Tribune Publishing
Founded in 1847, Tribune Publishing is a celebrated publisher of major newspapers including the Chicago Tribune. But in 2016, print advertising revenue was declining, and big chains were merging. To avoid being swallowed and to increase income, Tribune rebranded to Tronc Inc.—for “Tribune online content.” Folks mocked the silly-sounding moniker, and Tronc changed back to Tribune in 2018.
God's creativity is on full display in the barrel-shaped hippopotamus. These massive beasts are some of the most unusual mammals on Earth. And in the tropics of Colombia, South America, a herd of them is causing a ruckus—and stirring up colossal controversy.

In the 1980s, the sprawling estate of drug kingpin Pablo Escobar was home to a private zoo of illegally imported animals. In addition to kangaroos, giraffes, and elephants, he arranged for three female hippos and one male to be brought to his estate from the United States. After Escobar’s death in 1993, authorities relocated some of the animals. But the expense and trouble of transporting the three-ton behemoths caused Colombian officials to abandon the hippos to the wild.

Now those hippos are flourishing. And like the man who brought the animals to the Colombian jungles, they’re a source of big problems.

Unlike in Africa, hippos living around Colombia’s Rio Magdalena river have no natural predators. Therefore, the hippo population has grown out of control. It has exploded from 35 animals to between 65 and 80 in eight years. Experts say hippo numbers could reach 1,500 by 2035!

Some scientists warn that the hippos pose a major threat to the area—and could lead to deadly encounters between the huge animals and humans. The aggressive beasts kill more people per year in Africa than any other wildlife species.

One solution scientists suggest is culling the herd. Culling involves selecting unwelcome animals to slaughter.

Meanwhile, the hippos threaten not only humans but also other animals. One study last year found that hippos are changing the quality of the water in which they spend much of their time and, well, go potty.

Researcher David Echeverri-Lopez is seeking a solution to the hippo problem. He knows culling would be the best solution. But he says the hippos’ appeal and government laws over hippo hunting may never allow it.

Colombians in this rural area have embraced the hippos as their own, in part because of the tourist dollars they bring in. Plus, according to veterinarian Gina Serna-Trujillo, Colombians are protective of the beasts because “they love them.”

Ecologist Nataly Castelblanco-Martinez understands the hippos’ charm. She describes a baby hippo as “the most beautiful thing in the world” but says the animals’ future in Colombia should not be ruled by warm feelings.

“You can’t even talk about [culling hippos] because the rejection is staggering,” Castelblanco says. “I am being called a murderer.”

Colombian elementary school students are used to walking past signs that read “Danger—hippopotamus present”!

**WHY?** While God created all animals according to their kinds and set them around the world in perfect balance, human actions like transporting them to other places can have unintended consequences.
Dressed in his school uniform, Mathias Okwako jumps into the mud to search for gold. Just across the street, the school he should be attending sits empty. Weeds even grow in some of the classrooms.

Seventeen-year-old Okwako lives in Busia, Uganda. Uganda's schools have been fully or partially shut for more than 80 weeks because of the coronavirus pandemic—longer than the schools of any other nation.

As school closures stretch on, Okwako and his peers are becoming a lost generation of learners who work in a swamp as gold miners instead of acquiring knowledge and skills that will help them into adulthood.

For many kids around the world, school was interrupted during the pandemic. Most couldn't go to school in person. Many parents had to scramble to find child care, or learn to homeschool on the fly while working at the same time. In many parts of the globe, lessons moved online. Not so in Uganda. Uganda had major schooling problems even before the pandemic. Schools lacked qualified teachers and many students dropped out before they graduated. When the pandemic hit, the country couldn't provide virtual schooling.

Uganda first shut down its schools in March 2020. Eventually some classes resumed, just to be halted again as the coronavirus spread and the nation returned to lockdown. Uganda is now the only country in Africa where schools remain closed.

Situated in east-central Africa, Uganda is about the size of Great Britain. Uganda’s rich and productive landscape has earned it the nickname “the jewel of Africa.” The nation produces coffee popular with connoisseurs, and its wildlife (hippos, gorillas, tree-climbing lions, elephants, and more) draws tourists from around the globe. Still, almost half of Ugandans live in poverty. Diseases such as malaria make many Ugandans—about half of whom have no access to medical care—unable to work. Many Ugandans also need to be taught how to perform jobs that will earn good pay.

For now, teachers work alongside their former students in the swamp. A typical day of gold mining can bring in just over $2, enough for a child to buy a pair of used shoes. Okwako purchased two pigs with his earnings, and other children use the money to buy salt or soap for their families.

Why is Okwako wearing his school uniform if there’s no school? He says he has nothing else to put on.

“No school” might sound fun, but it’s important to recognize reliable education as a blessing God allows to prepare people for the work He has for them to do.

Mathias Okwako
Retired lawyer Stuart McClendon isn’t spending his golden years “ceasing to work.” Instead, he’s building furniture and leading Bible studies at an Arkansas ranch.

Growing up, McClendon viewed church as a social engagement. He respected scripture, though he didn’t own a Bible. But when friends invited him and his wife, Lillian, to visit a church “where they taught the Bible,” he wasn’t sure what to expect. The pastor presented the gospel that day. It was the first time McClendon had heard that he was a sinner in need of a Savior. He was 26 years old—a young husband and father, a lawyer with a brief, failed political career. He was crying, but this was the best day of his life. “There was no struggle, no fighting,” he says.

Over the next five decades, the McClendons hosted Bible studies and retreats at their home near Covington, Louisiana. After building a shop on the land, McClendon took up furniture-making.

What began as a hobby became a successful business. Mostly, McClendon crafted swings and chairs from sunken cypress logs. He named the business Honey Rock, a reference to Psalm 81:16—“With honey from the rock I would satisfy you.”

Retirement age came and went. A friend invited the McClendons (then in their early 70s) to build a shop and a home on his property, a working ranch with an addiction recovery program. McClendon saw the offer as “the Lord [saying,] ‘I’ve got a place for you . . . where you can finish strong.’ And that’s what I want to do . . . finish strong.”

While moving their belongings to the Bar-J Ranch, in Calion, Arkansas, McClendon’s wife suffered a stroke and died. After this blow, someone in the ranch’s recovery program set fire to his cabin under construction. McClendon sat on the front porch of his shop, under the alpha and omega characters worked into the trim overhead, and drank coffee while his cabin burned down.

Despite those troubles, McClendon says he’s never regretted coming to the ranch. “God un-messes the mess,” he says. He shares the message in Bar-J’s recovery program and with his furniture customers. McClendon leads morning Bible study on the ranch and teaches in churches in the evenings. He regularly repeats the good news that Jesus came to save the sinners He loves. McClendon says his ultimate purpose is to make disciples, not furniture.
It’s early morning in the Great Smoky Mountains. Kevin Burrell dozes, wrapped in his sleeping bag. Before emerging into the brisk air, he hears the call of a hermit thrush above his tent. The flutelike tune stops but is followed by the chirps of a northern cardinal and the cheerful song of a tufted titmouse. The sounds come from the same spot above him. As an avid birdwatcher, he knows that all are made by a single northern mockingbird.

While some might pull their sleeping bags over their heads, Burrell ponders meaning in the bird’s mimicry. He sees the mockingbird as representing Christian discipleship, which entails imitating Jesus. The bird is also a lifelong learner, which is what Burrell says he is called to be as a follower (disciple means “learner”) of Christ.

Not every Christian perceives deep meaning from God’s avian creatures. Most know birds appear in the Bible—including doves, eagles, hawks, sparrows, and swallows—but few consider connections between birds and Christianity. That’s not the case with believing birdwatchers like Burrell though. Songbirds remind him and other Christian fowl fans of singing during worship; chickadees splashing in a birdbath reflect a kind of prayer.

Renowned theologian and birder John Stott coined the word ornithology in his book, The Birds, Our Teachers. It refers to a unique blend of scientific study and religious appreciation of birds.

In his bird book, Stott takes Jesus’ urging to “Look at the birds of the air” (Matthew 6:26) seriously. Burrell is senior pastor at StonedeBridge Church Community in Charlotte, North Carolina. On his blog, ornithology.com, he recounts birdwatching trips with both biological detail and biblical devotion.

“To me, the beauty is a window that points to a Creator of it all. It’s a means to a greater end,” Burrell says.

The pastoral outdoorsman is most attentive to birds local to his area. One post explains the link between the northern mockingbird and discipleship. Another likens the unrelenting refrain of the Carolina wren to worship songs. The bird’s persistence reminds him of the believer’s call to continual singing, prayer, and worship. A post about homing pigeons details a theology of home.

For Burrell, being a Christian birder means being able to thank Someone for the beauty he encounters in a ruby-throated hummingbird in North Carolina or a rainbow lorikeet in Australia.

“I think that everybody who takes seriously the fact that God is a creative God should pay attention to some creative aspects of what He’s made,” says Burrell. “And I choose birds.”

WHY? The Creator God leaves His imprint on all of creation. Encouraging others to see and appreciate His character reflected in His work brings Him glory and draws believers into closer communion with Him.
Elephants use their tusks to dig for water, strip bark for food, and joust with other elephants. But those big incisors make them a target for ivory poaching. Now researchers have figured out how poaching in Mozambique has led to more elephants who don’t grow tusks.

During Mozambique’s civil war from 1977 to 1992, fighters sold ivory tusks to finance war efforts. Around 90% of elephants were killed in what’s now Gorongosa National Park.

Many of the survivors shared a trait: half the females were naturally tuskless. Before the war, fewer than 20% lacked tusks. Genes determine whether elephants inherit tusks from their parents.

Tusklessness was once rare in African savanna elephants. Now it’s more common.

The tuskless surviving females passed on their genes. About half their female offspring were tuskless. More surprisingly, two-thirds of their offspring were female.

Researchers studied Gorongosa’s roughly 800 elephants over several years. The team collected blood samples from seven tusked and 11 tuskless female elephants, and then analyzed their DNA for differences. Genes are located on chromosomes, which are made of DNA and proteins. Because the tuskless elephants were female, scientists focused on the X chromosomes. Most female mammals have two X chromosomes. Males have one X and one Y chromosome.

Scientists suspected that the relevant gene was dominant. That means that a female needs only one altered gene to be tuskless. They also think that the gene may cause males who have it to die early in development. Some scientists call this evolution. But the elephants aren’t changing into a new species. They are adapting to new conditions.

In nature, the creatures that are most able to survive in their environment are the ones that live long enough to have more babies. The ones with helpful traits may survive and pass those traits (called adaptations) through genes to the next generation. This is called natural selection.

And that’s how these elephants lost their tusks.

The theory of evolution claims that natural selection is the way living organisms came into being over millions of years. Some of its proponents do not believe that God created the world and its creatures.

But watching adaptations in nature shows just how amazing the Creator is. His creation is not static. God made His creatures adaptable.

Now scientists say it looks like the elephants without tusks are changing their diet. The tuskless pachyderms eat mostly grass. The tusked eat more legumes and tough woody plants, from which they can peel bark. What’s next for the elephants?
Thousands of gas storms swirl across Jupiter. One in particular captivates scientists. Did you know that Jupiter’s Great Red Spot is actually an enormous storm that’s been violently churning for decades or more? (It was first observed in 1831.) The giant spot is so big that it could swallow Earth whole. New scientific data says Jupiter’s red spot is probably much deeper than anyone previously imagined.

Jupiter is not a rocky planet like Earth. Its surface is made of gas—mostly hydrogen and helium. Scientists don’t yet know if it has a solid core or a center of more concentrated gases, like a soupy mass. The largest planet in the solar system, Jupiter has a strong gravitational pull. It has sucked whole comets into itself leaving not craters (like the ones space debris creates on the Moon) but simply discolored scars on the gaseous surface. Some astronomers think Jupiter’s gravity draws space junk away from Earth, protecting life here.

Determined to learn about the Great Red Spot, NASA launched its Juno spacecraft to survey the monstrous storm. Juno has flown over Jupiter twice, collecting data: once in February 2019 and a second time in July 2019.

The gigantic Great Red Spot is 10,000 miles wide. Three-dimensional imagery of the storm makes it appear flat, like a pancake. But data collected by Juno tell scientists that the storm isn’t flat at all. In fact, it is deeper than they thought. It appears to be 200 to 300 miles deep.

Scott Bolton of Southwest Research Institute studies the Great Red Spot. He explains, “It probably fades out gradually and keeps going down.” He continues, “I wouldn’t want to be too quick to guess that we’ve seen the deepest [storm]. But the Great Red Spot is the largest . . . and you might expect that it might be deeper just because of that.” Bolton says there might not even be a clear cutoff at the bottom of the storm as it continues into the gas giant’s center.

Tools on Juno measure gravitational pull from the storm and the planet’s own gravity field. This data will help scientists understand the gas giant and its whirling tempests. A microwave device measures the planet’s temperatures. Scientists like Bolton will create heat maps from that microwave data. That will explain more about the planet’s mysterious depths.

Behold, to the Lord your God belong heaven and the heaven of heavens, the Earth with all that is in it. Yet the Lord set His heart in love on your fathers and chose their offspring after them.
— Deuteronomy 10:14-15

Juno is named for an ancient mythical Roman goddess who was the wife of the god Jupiter.

Juno has gone farther into deep space than any other solar-powered probe (493 million miles from the Sun).

New scientific data help us see the intentionality and creativity of the Master Designer. Studying His space wonders draws us like gravity toward our Creator.
For nine of the past 10 years, floods have engulfed the Yazoo Backwater. Experts have proposed pumps to help the region. But environmental groups say pumping could harm the area. The two sides are arguing over who has residents’ best interests at heart.

The Yazoo Backwater is an area north of Vicksburg, Mississippi. It lies between the Mississippi and Yazoo rivers. The Backwater comprises thousands of acres of wetlands. The region supports more than 450 species of wildlife, including several endangered ones.

Those flatlands are dominated by agriculture and dotted with small communities. Serious flooding has endangered and displaced humans and animals.

In Genesis 9:11, God promised never again to destroy the entire Earth by flood. However, localized floods still happen.

Farmers and environmentalists have argued for decades over proposals for flood-control projects in the Yazoo Backwater.

The Yazoo Pumps project would construct a 14,000 cubic-feet-per-second (nearly 105,000 gallons!) pumping plant in the area. It would drain water during floods.

Opponents say pushing water out of the south Delta could cause worse flooding along the Mississippi River. Conservationists also say that draining the entire area would harm birds and wildlife by taking away their habitats.

At one point, the U.S. Environmental Protection Agency (EPA) okayed the massive project. Now that decision has been overturned. Officials say the project should never have gotten the green light.

In Mississippi, the pumps have wide support. Pro-pump experts say the project will decrease the depth and duration of serious—and sometimes deadly—flooding in the Yazoo Backwater.

Peter Nimrod is chief engineer of the Mississippi Levee Board. He says recent flooding has already wiped out generations of wildlife, killed two people, and destroyed many homes in the impoverished region. He contends that national groups don’t know what is best for people in Mississippi.

“The Yazoo Backwater Pumps will save lives while increasing wetland, terrestrial, aquatic, and waterfowl resources and reforestation,” he says.

Conservation groups cheered the decision to halt the project.

“The EPA’s decision upholds bedrock environmental laws and restores crucial safeguards for some of the nation’s richest wetlands,” says Stu Gillespie, an environmental law attorney.

U.S. Senator Roger Wicker is “deeply frustrated” by the decision. He believes it “leave[s] the people of the South Mississippi Delta in harm’s way.”

He says shutting down the project “means that roads will continue to be impassable, deer and other wildlife and plant life will die, hypoxia will kill fish, small businesses will shut down, and residents will continue to be forced to leave their houses.”
Rivers in the Sky

“God thunders wondrously with His voice . . . For to the snow He says, ‘Fall on the Earth,’ likewise to the downpour, His mighty downpour.” — Job 37:5-6

The world’s largest rivers include the Amazon, Nile, Yangtze, and Mississippi. But there are also rivers you’ve probably never heard of. These “rivers of the sky” aren’t actually on Earth. But they’re potentially devastating—and yet vital—currents around the world.

Atmospheric rivers (ARs) are relatively long, narrow plumes of moisture that exist in the atmosphere. They’re part of the Creator’s ingenious plan to move water vapor from the steamy tropics to drier regions of the world, farther from the equator. The largest ARs can carry water vapor equal to 15 times the amount of the water flow at the mouth of the mighty Mississippi River.

When ARs make landfall, they often release vapor in the form of rain or snow. An AR that stalls over a drainage basin (an area that collects rain and drains into one outlet, like a river or lake) can produce extreme rainfall, strong winds, mudslides, and damage to life and property.

In 2019, scientists devised a scale to classify ARs, similar to the wind scale used for ranking hurricanes. The scale measures both benefit and hazard using five levels: “weak” to “exceptional” in strength and “primarily beneficial” to “primarily hazardous” in impact.

Although some large ARs cause trouble, most simply provide much-needed rain or snow to refresh a region’s water supply. One strong atmospheric river brings moisture from the Hawaiian tropics to the U.S. West Coast. It is quaintly named the “Pineapple Express.”

ARs are extremely important in the global water cycle. Their contribution to an area’s snowpack can help water an entire area throughout the dry summer months. They’re closely related to both water supply and flood risks—particularly in the western United States.

In November, back-to-back-to-back storm systems linked to ARs threatened parts of western Washington and British Columbia, Canada. With snow added to the mix, flooding became even worse. There were no breaks between storms, so the region’s soggy ground couldn’t dry out.

During the fall AR weather event, rivers inundated towns, landslides choked roads, and a long-dried-up lake re-emerged. In northwest Washington’s Whatcom County, officials say costs from mudslides, road collapses, and property damage could reach as high as $50 million.

“One hundred years ago there was a Sumas Lake,” says meteorologist Johnson Zhong. “Then they pumped the water out to make good farmland. It has been farmland for the last 100 years, and now it’s a lake again.”

AR FACTS:

- The U.S. West Coast receives between 30-50% of its yearly precipitation in just a few AR events.
- ARs average 248-372 miles wide.
- ARs are occurring somewhere on Earth at all times.

As the AR moves inland and sweeps over mountains, water vapor rises, then cools, resulting in heavy rain or snow.

Runoff from the mountains can result in flooding and landslides.

WHY? God’s wisdom and creativity is awe-inspiring, so we study His creation in detail to learn more about Him as well as to manage the creation for good.
Global interest in affordable, eco-friendly housing is booming. And tiny houses are at the forefront of the trend. It seems young people are going big for tiny homes.

England and Denmark have some of the oldest allotment gardens. Records going back to the 1700s show that communities there began allotting land for gardening, fresh air, and exercise.

In the early 1900s, towns and villages began worrying about food shortages. Workers ditched farms and headed for large cities to find higher paying jobs.

In creating allotment gardens through Europe, local officials divided acreage into pint-sized parcels. Owners often spent weekends working their plots. Sometimes they camped out in small toolsheds erected on the property. Soon tiny dwellings began popping up on the tiny plots. By law, the houses couldn’t be large—and practically, gardeners wanted to save the land for growing.

Hundreds of allotment gardens still dot suburban areas near Stockholm and Malmö in Sweden. Today, several companies build tiny homes in Sweden as an alternative to high-priced urban real estate. The Scandinavian kingdom permits homeowners to build structures without a permit—as long as they’re smaller than 269 square feet and not taller than 13.1 feet.

David and Eliza Roxendal founded Swedish company Rox Productions. They build tiny houses using recyclable, local resources. That makes them cost-effective and largely sustainable.

Rox Productions also teaches people how to build their own tiny houses. They wanted to inspire more self-supporting communities.

David Roxendal says most people have at least a curiosity about tiny houses. But young people, who often have more time for travel and new experiences, have fully embraced the tiny house movement.

“If you look at the tiny house movement in Sweden, it is absolutely exploding,” he says.

Here are some pros and cons of tiny living:

**PROS**
- Lower upfront costs
- Lower utilities expenses
- More mobility (if on wheels)
- Quick to clean
- Freedom from managing too many possessions

**CONS**
- Less space for storage and sentimental items
- Increased wear and tear due to constant use
- Security issues due to small size (can be stolen)
- Smells from cooking, etc., fill whole house and linger
- Tricky and changing zoning laws
- Low resale value

But the greatest con may be what tiny house owner Jenna told the online magazine *Insider*: “I can turn my house from a sterile hospital room into a disgusting dumpster in a matter of seconds,” she says. “One bowl of cereal falls off the counter . . . my house is a wreck.”

For we know that if the tent that is our earthly home is destroyed, we have a building from God, a house not made with hands, eternal in the heavens.

— 2 Corinthians 5:1

![Allotment gardens in Leipzig, Germany](AP PHOTO)

god knows that having a home is valuable, but earthly homes can take many forms. tiny homes offer a wise use of resources for some to consider—especially while waiting for our perfect eternal home.
At Shiloh’s Community Market in Oakland, California, Sonia Lujan-Perez picks up chicken, celery, onions, bread, and potatoes for free. This will help her feed herself, her three-year-old daughter, and her 18-year-old son. “That is wonderful for me because I will save a lot of money,” she says. She needs the extra food, especially since the cost of milk, citrus, spinach, and chicken has increased.

Meanwhile, hundreds of people line up outside Shiloh Mercy House for its weekly food giveaway.

Ministries like Shiloh Mercy House and its Community Market get their food from food banks. Tens of millions of people in the United States rely on these distribution organizations for food. But at this time, some families may get smaller servings or substitutions.

That’s because this last year, more people than usual have needed help affording food. Thanks to effects of the pandemic, some supply chains have slowed down or broken. Transportation prices are up, making food more expensive to move. Because factories lack workers, food banks as well as stores are often left waiting for their goods.

Plus, everything just costs more. Some food banks are buying staples such as peanut butter for nearly double what they cost two years ago. Prices have gone up for canned green beans, tuna, and peaches, along with frozen fish and chicken. Even dry oatmeal costs 17% more than it used to. Food banks can’t go on paying double or triple the price for food while serving more and more needy people.

Think about the neighbors around you. Which of them might need food this year? Can your family drop off groceries to a neighbor? Can you deliver a pan of brownies or a pot of soup, or invite a family over for dinner? Spring is on the way. What could you grow in your backyard, or even in a pot on a window sill, that would bless your neighbors? Food may be more expensive because of supply chain problems. But there are no supply chain issues between your back yard and your neighbor’s front door!

As you use your imagination to care for neighbors in need, remember: You don’t need to impress them with your good cooking or your fancy, spotless house. Show hospitality to demonstrate what Jesus is like: generous and compassionate. Also remember that you can’t solve all problems or feed every hungry person. But you can feed someone something. Jesus, however, can do everything. He can even multiply what you give. (See John 6.)
Italian engineers Antonio Durbe and Daniele Tummei have created a Sun-powered coffee roaster that can roast up to 110 pounds of coffee per hour. Sensors allow a set of mirrors to follow the Sun. The mirrors focus sunlight on a rotating steel basket holding coffee beans. The basket reaches peak temperatures of about 450-480 degrees Fahrenheit, and can roast a batch of beans in 20 minutes. A small solar panel powers a few electrical parts. The process isn’t just eco-friendly and financially convenient. Unlike typically gas-powered hot air ovens, sunlight roasts the coffee without heating the air around it or burning the beans’ outsides. According to the inventors, that gives the coffee a richer flavor.

Finnish scientists say they have successfully produced lab-grown coffee cells that smell and taste like the conventional brew.

Instead of growing beans on coffee plants, the VTT Technical Research Centre of Finland project is developing coffee production through plant cells. The process is called cellular agriculture. (Another example is lab-grown meat. Read “Pass the Protein Patty” at teen.wng.org/node/2535.)

Heikki Aisala is a scientist on the team. He is one of the few people allowed to taste the coffee so far because of health and safety laws.

“It tastes like a combination of different types of coffees,” he says. The lab-made java might not quite pass the taste test yet. “But it certainly does resemble coffee.”

According to VTT, the work started by initiating coffee cell cultures. That refers to growing cells in an artificial environment. Then scientists transferred the cells to bioreactors. Those are vessels which continue growing the cells. After analyzing the mass of cells, they developed a roasting process. Then the new coffee was evaluated by VTT’s trained sensory panel.

“We skip the farming part, and we use plant cell cultures instead. So actually real coffee cell cultures but they’re not generated in the field,” says VTT Research Team Leader Heiko Rischer.

But why would scientists want to create coffee in a lab? Coffee is a multibillion dollar industry. Rischer says lab-grown coffee has several benefits. It doesn’t need pesticides, fertilizer, or much land. It could be grown around the world. And it wouldn’t be reliant on seasons, geography (coffee plants like high altitude), or other environmental factors.

But even if lab-grown coffee does take off, Rischer thinks traditional farming will still be in demand for certain specialty cups of joe.

So, whether you eat or drink, or whatever you do, do all to the glory of God. — 1 Corinthians 10:31
ICE STUPAS FOR WATER

Where do you get your water? For most of us, rain falls, filling rivers and reservoirs. In some areas, such as the Ladakh Valley between the Greater Himalayan and Karakoram mountain ranges in a territory of India, natural glaciers are a main source of fresh water. But the valley is extremely cold and dry. It receives less than a half inch of rain and snowfall each year. That’s not enough to meet human demands.

So researchers from the University of Aberdeen in Scotland hope to help. Their idea? Creating artificial glaciers.

During the summer melting season, glaciers on mountain ranges send water to valleys below. But drier winters and shrinking glaciers create frequent droughts, threatening life-sustaining crops.

The researchers are studying “ice stupas.” These man-made glaciers store winter water for use in late spring and early summer. Engineer Sonam Wangchuk invented stupas in Ladakh in 2013. The name comes from their high, narrow, dome shape, similar to Buddhist shrines called stupas.

So just how do build-your-own glaciers work? It starts with a tube of wood and steel. Gravity brings water through a pipe from nearby streams during the rainy season. Water is sprayed into the air through the tube like a fountain.

Sub-zero temperatures quickly freeze the water into a conical structure. A mass of ice begins to grow. The shape slows melting because the surface area exposed to the Sun and warm temperatures is minimized.

When the warmer growing season arrives, streams dry up. There is little water available until June when the glaciers provide meltwater again. The window in between is when the ice stupas start melting. That water source makes a big difference for farmers in this agricultural environment.

The researchers are looking for better ways to avoid frozen water in the supply pipelines and to distribute water to villages.

Artificial ice reserves aren’t new. But in the past, they were built in less efficient shapes. They were also constructed much higher up the mountains. Today’s ice stupas can stand nearer the villages and fields where water is needed most. Efficient, inexpensive, and easy to maintain, the stupas can produce millions of gallons of water each year.

The Ladakh ice stupa project inspires others around the world. A group in Chile’s Cajón del Maipo region plans to build 50 stupas. Project engineer Roberto Lara says those could supply a community of 100,000 people for three months.

By the breath of God ice is given, and the broad waters are frozen fast.
— Job 37:10

WHY? Life has many challenges, but God grants humans the abilities to develop creative—and sometimes surprising—solutions.

PRAY: For those who lack access to water and those who seek solutions. Pray also for those who need the living water that only Jesus gives. (John 4:14)

Glacier-making in the Himalayas
Your brain is the boss of your body. But it contributes only about 2% of average human body weight. How can something so small run all the body’s functions and simultaneously perform complex tasks like solving a crossword or processing sound?

There’s much scientists don’t yet understand about the marvel that is the human brain. Yongsoo Kim leads a team of scientists at Pennsylvania State University. The group studies mouse brains, hoping to learn more about human brain development and disorders. Modern brain mapping tools help them track which cell types make up this organ and how they work. But it’s a very big job.

Let’s start charting:

**STEP 1:** Scientists first need to label a specific cell type. (There are many different types of brain cells, including neurons and glia.) They use two kinds of methods. One depends on genes. It uses animals, like mice, that can be genetically engineered so only the target cell type is visible under fluorescent light. The other involves a chemical treatment to make brain samples transparent and antibodies to label the target cell type with a fluorescent tag.

**STEP 2:** Using microscope tools, scientists take snapshots of the entire brain. Then they stitch the images together. Kim says it’s like building a Google map of the brain: By combining millions of individual street photos, viewers can zoom in to see a street corner and zoom out to see an entire city. With this technology, scientists can view parts of the brain too small for the naked eye to see.

**STEP 3:** Once scientists find their target cell type in an image set, they locate specific cell features in a reference brain. The reference brain is like a standard map that locates each brain region. The standard map is compared with individual brains to see how they differ.

**STEP 4:** Scientists start over with a different cell type. Each run-through adds more detail. Different labs share data to create complete brain maps.

But is this enough to understand how our “gray matter” works?

Kim says that while researchers have been busy collecting detailed information about the brain, using this data to create new theories about the brain lags. A map does not necessarily tell researchers how the cells work and interact with one another. For example, how do networks of brain cells generate abstract thought? Answering questions like that one may help researchers understand how specific brain changes are linked to disorders like dementia. Then they hope to find new treatments.

**WHY?** The brain is God’s intricate creation. Though there is still much we don’t know about it, new tools used for mapping could help bring unknowns to light.

**PRAY:** That new discoveries would bring glory to God and relief to those with brain disorders.
For today’s job hunters, a firm handshake, good eye contact, and a glowing résumé could all fall second to computer savvy. After all, in today’s world, that interviewer might be a microprocessor. Now a New York City law may limit the computer’s role in the hiring process.

Artificial intelligence (AI) has come into common usage in recruitment and hiring. Employers from fast food chains to Wall Street—nearly 83% of U.S. companies!—rely on AI to speed up staffing. Computers scan résumés, conduct video interviews, and administer online tests.

Prasanna Tambe teaches at the Wharton School of Business. “Technology has made it easier than ever to apply for jobs. So recruiters have increasingly large stacks of applicants,” he says. “Tools that can help recruiters sort . . . are very attractive.”

But AI hiring processes aren’t perfect. “AI systems learn to make predictions based on data,” explains Tambe. He says descriptions of who makes a good candidate “are generally more accurate for groups [that] have more data available.”

Amazon’s AI hiring practices support Tambe’s point. The company stopped using AI in 2018. That’s when developers realized the tool discriminated against females—because Amazon’s data was based on mostly male job holders.

Christians can embrace the benefits of artificial intelligence, like speed and efficiency, while rejecting threats to godly living, like prejudices and dehumanizing practices. (Romans 2:11)

A bill proposed by the NY city council may help restrain AI bias. It aims to expose the complex algorithms that rank candidates based on how they speak or write.

The bill forces AI-using employers to conduct yearly audits showing they don’t discriminate based on race or gender. The bill also allows job seekers to choose a different process—like involving real, live humans—for application reviews.

Some digital rights activists still say that NYC’s bill doesn’t go far enough to curb age or disability biases.

Of course, in-person hiring methods have problems too. Kevin Parker is CEO of a video interview company. He believes human interviewers can show more bias than computers. That’s because all people bring flawed expectations and assumptions to every interaction. But “by utilizing AI and committing to regular audits,” Parker says, “hiring teams can be sure that they are consistently and fairly evaluating” candidates.

NY Chamber of Commerce executive Helana Natt believes that employers and employees “should know that hiring firms are using these algorithms.” She says, “It’s all about transparency.”
RETURN OF THE BRAY SCHOOL  
Colonial Williamsburg is a living history museum. Living museums recreate the way a place might have looked in the past. Reenactors at Colonial Williamsburg dress like Virginians from the 1700s. The Colonial Williamsburg Foundation is adding another building to the colonial town. It’s not new. It’s very old—like many of the others there. The building once housed the Bray School for black children. Hundreds of enslaved and free black students learned there from 1760 to 1774. The children all had one teacher, a white woman named Ann Wager. She taught reading, spelling, math, and Bible. After moving the building from the campus of the College of William & Mary, workers will restore it. They’ll do their best to make it look like it did back in the 1700s.

OLDEST STAR MAP  It looks more like a brooch than a map. But the British Museum in London says this is the world’s oldest surviving map of the heavens. The 3,600-year-old “Nebra Sky Disc” will be a star attraction in an exhibition that runs from February to July. The disc was first discovered in Germany in 1999. It’s 12 inches in diameter and made of bronze with a blue-green patina. Inlaid gold symbols represent the Sun, Moon, and constellations. The museum exhibition aims to cast light on the mythology and cosmology (the study that tries to grasp the chronology of the universe outside the authority of the book of Genesis) surrounding Stonehenge. Hundreds of British and European artifacts that help explain the mysterious stone circle in southern England will be displayed.

REMEMBERING MR. ROGERS  It was a beautiful day for a statue reveal. Grant Cornwell, president of Rollins College in Winter Park, Florida, whisked away a drape, revealing a bronze statue of a familiar figure and Rollins alumnus. The statue depicts a sweater- and sneaker-clad Fred Rogers, famed host of the beloved show Mister Rogers’ Neighborhood. The show ran on public television from 1968 to 2001. British artist Paul Day designed the sculpture. It shows Mr. Rogers surrounded by children, puppets from the show, and the Neighborhood Trolley. Rogers was well-loved by his viewers for promoting friendship, kindness, patience, creativity, and freedom from fear and anxiety. He graduated from Rollins College in 1951 and died in 2003.

WRIGHT BROTHERS, WRONG TAG  
Oops! Ohio goofed! Though their first flight took place at Kitty Hawk, North Carolina, Orville and Wilbur Wright lived in Ohio. So how did Ohio get its commemorative Wright Brothers’ license plate so wrong? The Ohio Department of Motor Vehicles revealed the license plate in October. It didn’t take long for many to spot the mistake. The image of the famous flyer is flipped. The front is where the back should be. A banner that should trail behind it appears to flow out in front. Ohio officials didn’t distribute the erroneous plates. They ordered corrected ones. A North Carolina official quipped on Twitter that Ohio should be forgiven for the mistake. After all, the NC Department of Transportation tweeted, Ohio wasn’t there.
A FRESH START FOR THE NCAA

The past year saw lots of action in college athletics. Athletes' financial freedoms grew (See “NCAA Athletes Win!” at teen.wng.org/node/6999.), conferences realigned, and the College Football Playoffs is expanding. Now the NCAA is rewriting its constitution. It will do less governing and more focusing on the welfare of approximately 500,000 college athletes it represents. The changes will address revenue distribution and give the three divisions (I, II, and III) more power to self-govern. The smaller governing board added a recently graduated athlete too, to better represent players' interests. The revisions follow a June 2021 U.S. Supreme Court ruling, which hammered the NCAA for emphasizing funding itself over compensating students fairly and growing athletic programs, especially at smaller schools. There's still much work to be done. But for the most part, athletes, colleges, and legislators see the proposed change as a step forward.

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ZOO SOLUTION

Keepers at the Liberec Zoo in northern Czech Republic jump into kayaks and get ready to grab. Winter means it's time to move the pelicans. Pelicans are excellent swimmers. They can also fly well with a little help from the wind. In the wild, the big water birds would migrate thousands of miles south to warmer spots every autumn. Winging south isn't an option for these captive birds, so workers chase the zoo's 10 pelicans in two kayaks and a boat on a lake. To avoid injuring the birds, they handle them only with their bare hands—which is no easy task, since pelicans can weigh up to 33 pounds and their wingspans surpass to feet. Once the pelicans reach land, keepers gather them up and carry them to their winter quarters. This heated enclosure within the zoo will keep the birds toasty warm all winter.

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“Inflation is affecting every single ingredient, every single item we use.”


The pizzeria raised the price of its famous $1 per slice pizza because “flour, cheese, tomatoes, gloves, paper goods, paper plates, napkins. Everything is more expensive than ever before due to increasing production and labor costs and supply-chain problems.

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Quiz My Reading:

1. a
2. b
3. a
4. b

Words to Bank:

1. b
2. c
3. b
4. a
5. b
6. a

Viz Quiz:

C

Mind Stir:

Answers will vary but may include 1. Tusks are helpful to elephants under normal conditions, but God in His wisdom foresaw the effects of mankind's sins on creation and provided a way to destroy tusk-bearing giants. 2. God's infinite creativity may be more than we can fully understand, but perhaps the design of rocky planets like Earth to support living creatures and gas giant planets like Jupiter is one way to draw celestial objects into themselves and away from the rocky planets we observe. 3. Our minds include the ability to reason and provide a way to forecast and prevent future problems. 4. God's infinite wisdom ensures the effects of man's inclinations on creation and provide a way to destroy tusk-bearing giants. 5. God's infinite wisdom ensures the effects of man's inclinations on creation and provide a way to destroy tusk-bearing giants. 6. Viz Quiz: Mind Stir: Answers will vary.
**QUICK MY READING**

1. **Natural selection happens when**
   a) organisms with advantageous traits survive and pass them to offspring
   b) humans breed animals with certain characteristics

2. **Which device is helping scientists create heat maps of Jupiter and its Great Red Spot?**
   a) Juno’s gravity measurement tool
   b) Juno’s microwave instrument

3. **What did the Yazoo Pumps project aim to do?**
   a) construct a massive pumping plant to drain water during floods in the region
   b) drain the area to take away animals’ habitats and give it back to farmers

4. **What is an atmospheric river?**
   a) a whirling mass of violent wind, water, and debris
   b) long, narrow plumes of moisture in the atmosphere

5. **contends**
   a) rises above
   b) asserts
   c) keeps track

6. **inundated**
   a) overwhelmed
   b) encouraged
   c) drained

**WORDS TO BANK**

1. **finance**
   a) loan money to
   b) support with funding
   c) become engaged to

2. **proponents**
   a) adversaries
   b) counselors
   c) supporters

3. **concentrated**
   a) thoughtful
   b) condensed
   c) focused

4. **localized**
   a) occurring in a limited area
   b) expansive
   c) global

**MIND STIR**

1. **Why do you think God created some elephants with tusks and some without?**

2. **Why do you think God made some planets rocky and other planets gaseous?**

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**QUIZ ANSWERS ON PAGE 29**

**VIZ-QUIZ**

Which of the five items below most resembles the likely shape of Jupiter’s Great Red Spot according to data collected by Juno. Write your answer in the circle.

- A
- B
- C
- D
- E

Which one is closest to the shape of Jupiter’s Great Red Spot?
Scan (right) to check out our “Farm News” page.

Have an ordinary kitchen blender? Sarah shows you how to turn raw wheat berries into pancakes in a short video.

Watch us harvest wheat from the field and transform it into pancakes, all in 5½ minutes.

Search our website for links on how Mennonites, fleeing the Ukraine, transformed Kansas’s agriculture and the American flour industry.

WE'RE GOING BACK AND FINDING THE OLD, GOOD TASTING GRAIN VARIETIES.

We grow them without synthetic chemicals in the fertility levels they traditionally thrived, and then we process them in a manner used hundreds of years ago. We accomplish this by doing everything, from planting to milling, here on our farm.

AVAILABLE AS Whole Corn Kernels, Wheat Berries, Oat Groats & Raw Cold Rolled Oats
Stone Milled: Cornmeals, Corn Grits, Sifted/Whole Wheat & Buckwheat Flours, Scottish & Irish Oatmeals

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