Emily Liu

Designer of the Year Application 2023-24

Nearly three summers ago, just a couple of days away from my freshman year, I decided that I was to become a student journalist. I was on one of the last stops of a school tour, where laying flat in a teal rolling cart was my first issue of the Panorama, our student newsmagazine. (The 2021 Senior Issue, to be exact) I had scarcely felt it before, but gazing upon the Studio-Ghibli-inspired cover adorned with soft flowers and climbing ivy, inspiration struck. I knew right there that I would spend the next three years telling stories on my school newsmagazine.

From then on, whether it be creating my own cover, designing infographics, or obsessing over folios, I fell in love with meaningful art and design. My passion truly ignited the beginning of my junior year, when I was offered to lead a section as Opinions Editor. The single-page, art — headline — body copy design of Opinions had always been limiting, so as editor, I wanted to focus not only on guiding my staffers but innovating upon this structure. In our first month, I was tasked with designing a spread featuring two different opinion stories on technology. The potential of those blank pages challenged me to craft a unique design for that issue and to continue innovating by designing infographics. Ever since, I've created one nearly every month for our magazine, communicating topics from pizza to transgender legislation through my art and data journalism. Each time, I emboldened myself to improve upon the previous design and as a result, have truly streamlined my design process and my identity as a creative.

Being able to connect with my audience through a visual medium has brought me so much fulfillment and has, I believe, made the magazine more accessible to many students in my community. As a designer, it's my goal to resonate with and appeal to my community in ways that text simply cannot. At my first journalism convention last year, I learned that visual information is processed 60,000 times faster than text. The truth is, a story will never be read and information will never be accessed if it isn't appealing enough to catch an eye. This is the responsibility I choose to bear each time I design. I may be biased in saying so, but each story we tell on the Panorama deserves to be seen, and through design, I now understand that I have a unique ability to support and enhance that story.

This past year, I feel fortunate to have been able to guide and teach many of my underclassmen in design. In turn, I've learned by watching them tap into their creativity how to push past the boundaries of my own creative ability. Next year, I have the privilege of leading our staff as Design Editor-in-Chief and am excited to continue helping others tell their stories through a visual medium. I hope to take the Panorama to new heights so that someday soon, someone else will feel inspired enough to stop, take a look and share in everything my incredible staff has been able to achieve.

The Digital Demand

The importance of digital literacy is increasing while the implementation is lacking

Unblocking Potential

STORY BY
SARA ROHATGI,
OPINIONS STAFF

BY ALLOWING STUDENTS to explore the internet within reasonable boundaries, schools can guide students toward responsible decision making. "Tech Trends," an educational technology journal, shows that students are given an opportunity to exercise their judgment and learn to make advantageous choices.

When students eventually graduate and enter adulthood, they will be expected to navigate the digital landscape without training.

Students will eventually encounter the full scope of the internet with its vast information, opinions and risks. The American Library Association states, "The over-filtering creates barriers to learning and acquiring digital literacy skills that are vital for college and career readiness, as well as for full participation in 21st-century society." The argument for looser web filters is not about abandoning responsibility, but rather about fostering it in a way that prepares students for the future and to be responsible digital citizens.

Topics like harsh cyberbullying, respectful communication and one's digital footprint can be better understood by kids if they were able to use the internet with trial and error. To illustrate, in today's interconnected world, collaboration often happens online, for students and employees alike. Therefore, it's essential for students to know how to safely engage in online projects, social networking and collaborative learning experiences like workshops, which are incredibly common in the modern-day workforce.

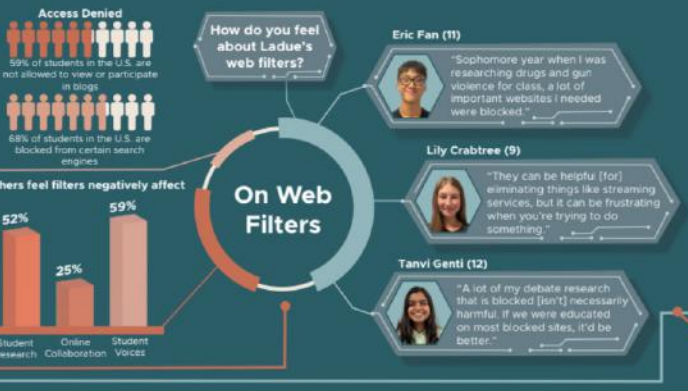
Over time, these looser web fiters will promote essential critical thinking skills and further allow students to properly traverse the Internet for credible, safe sources. A report by the Stanford History Education Group highlighted how students who encounter unfiltered information are forced to evaluate its credibility, prevalence and potential biases, developing critical thinking skills. The essential ability to discern reliable sources from misinformation is an important skill that students need. Having looser web filters on all school computers would help facilitate this.

DIGITAL DATA

81% of kids in the US are digitally illiterate

94% of schools use a filtering software

SCAN TO *practice your digital skills*



J's Advice

Jacob Jagodzinski
Computer Science Teacher

Sources: American Association of School Librarians, School of Information Journal, Stack Overflow, Washington Post

How do you use Computer Science in your own time?

"In my free time, I worked on building an app that helps me track different household tasks and reminds me of them."

How is Computer Science used in today's society?

"Almost all fields use computer science. It might not be [for] creating things, but keeping track of everything on a day to day basis."

How can you start coding?

"Block based coding is the best place to start because the code editor is easy to work with; very user friendly. MIT App Inventor and Vexcode are [also] very good. That's what we use for essentials."

Beginner Friendly Coding

MIT App Inventor
Used to build simple apps to be used with the mobile MIT App Inventor app.

VEXcode VR
Used with VEX robotics to control a virtual robot that augments reality.

Codeacademy
Teaches text-based coding with a variety of languages to learn from.

Code.org
Has "Hour of Code," to learn the basics of block-based coding in an hour.

Commonly Used Programming Languages

Coding Your Path

STORY BY
AARON LIN,
OPINIONS STAFF

INTRODUCING MORE computer science elements to classrooms, both in technology and non-technology based classes, will provide benefits to daily life, jobs and future prospects. In our current society, everyone is constantly using technology, and being able to fluently speak the language of computers can make daily life much easier.

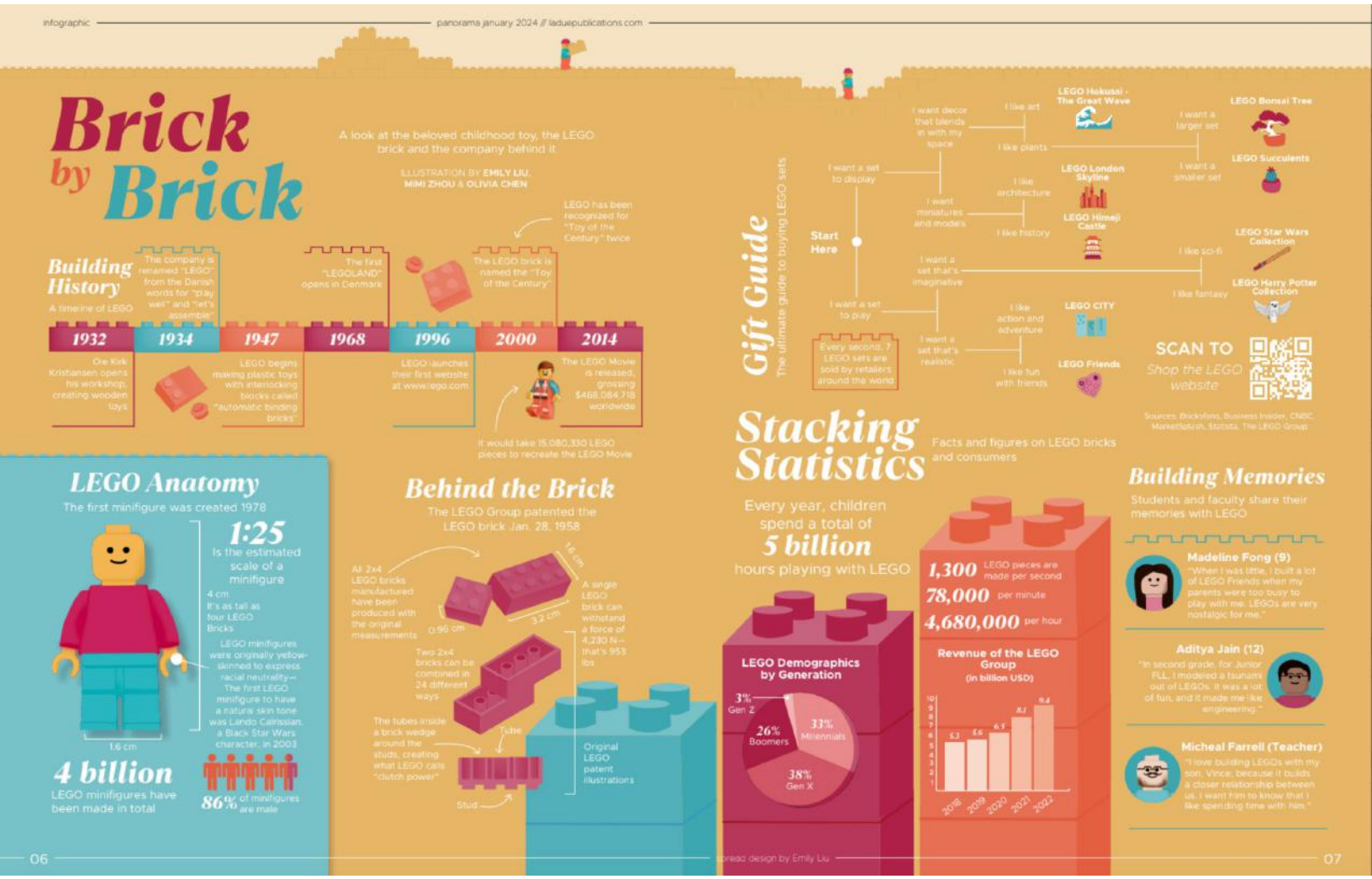
A computer program can easily sort through junk email, keep track of groceries and other daily tasks. The daily use of technology and computer science has led to a rapidly growing need for them in many, many fields, and a noticeable gap has formed between the workforce's digital skills and the demand for those skills. A September 2021 analysis by the National Foundation for American Policy found that there was a 15 percent increase in the number of job vacancy postings related to computer science and technology in a period of six months. Having a proficient understanding in computer science opens individuals up to more resources, such as job openings or information on the internet.

Even for non-technology based jobs, there is a need for technology education. According to the Organisation for Economic Co-operation and Development's "Survey of Adult Skills," 35 percent of Americans do not have basic digital skills. However, having these basic digital skills can allow one to easily fix tech problems by themselves. For example, once I couldn't connect to the public library's wifi because it required a log-in page. However, by using the link 1.1.1.1, I used Cloudflare's public DNS resolver to solve the issue.

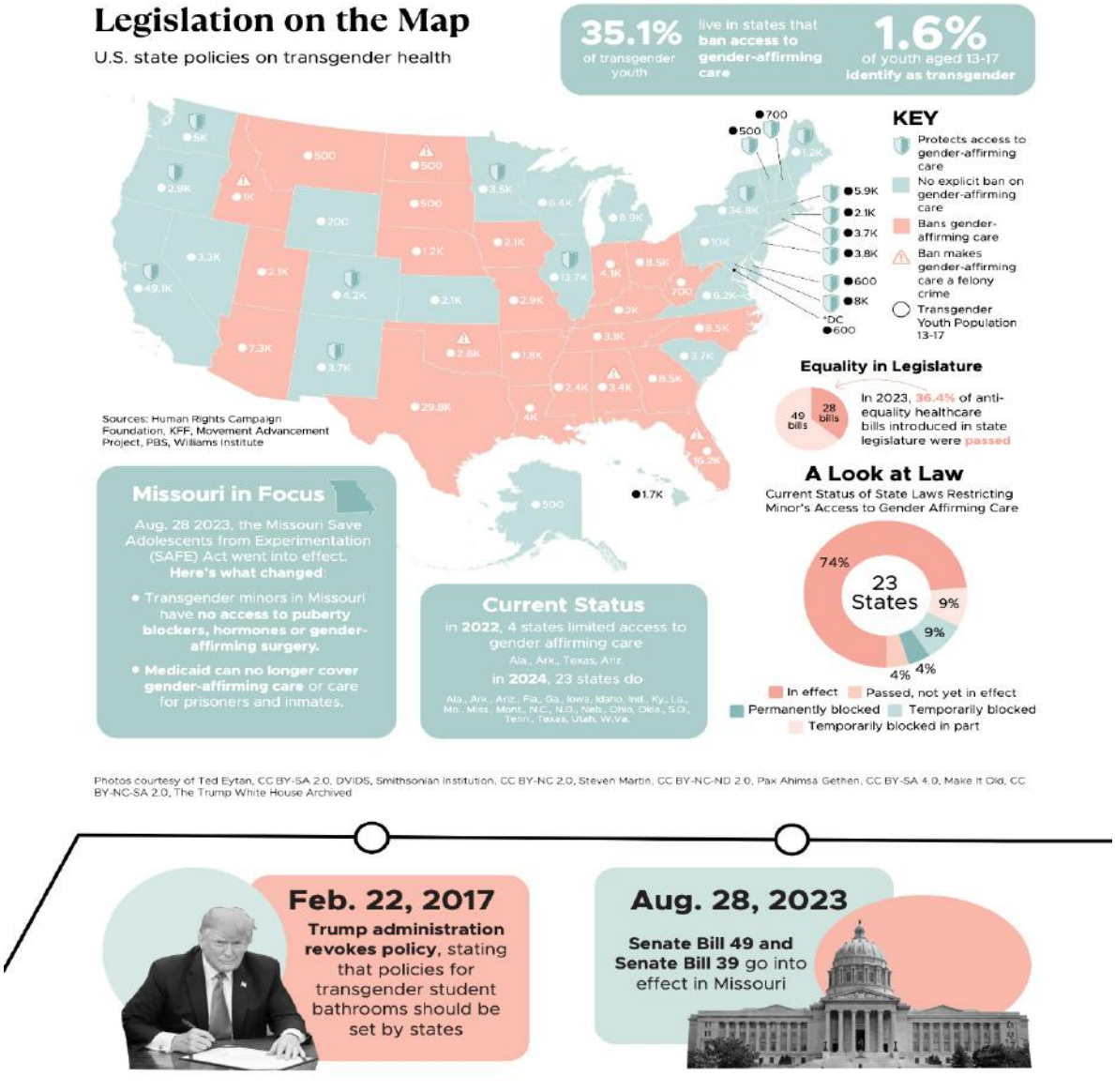
There has become more of a natural need for more computer science classes, computer science elements in other classes and a greater exposure to technology through looser web filters. Physically implementing this also isn't challenging, as there are many common examples of using computer science in non-computer science related classes, including building a website, using artificial intelligence tools and automating tedious tasks using computer scripts. These changes would allow educational establishments to prepare their students for the rapidly approaching digital age which would improve the futures of students everywhere around the globe.

For this piece I wanted to design a cohesive spread that brought together both stories while still being able to visually express that there were two different authors and topics. With an underlying theme of technology, I chose to incorporate a geometric design, with lines mimicing a mother-board to represent the current state of technology and irregular polygons influenced by futuristic aesthetics to represent innovation. Lastly, I visually indicated the individuality of both stories by utilizing primarily blue and orange colors on "Unblocking Potential" and blue and white on "Coding Your Path."

This was the first infographic I created for our speciality issue, the Food Issue. I wanted to utilize primarily photo in this piece so I took the challenge to photoshop 5 pizzas into one for the mod on the left page, and layered pizza ingredients together digitally for "Bake it Yourself." When designing this infographic, it was initially difficult to arrange the dimensions and location of each mod to establish hierarchy, but I ended up placing one large pizza mod towards the top and one towards the bottom on the other side to draw the reader's eye.



When designing this piece I wanted to retain much of the childhood whimsy of playing with LEGOs by choosing bold colors and designing creative elements such as the LEGO men "building" the infographic on the top and the headshots under "Building Memories" being LEGO representations of the individual. Creating the art for each of the LEGO bricks was the most challenging aspect of this piece because I needed to retain perfect dimensions of each brick for each perspective. Additionally, I incorporated subtle nods to LEGO in aspects of my mod such as making the dividing lines in "Building Memories" appear like stacked bricks to retain the feel of play and suspension of belief.



spread design by Katie Myckatyn & Emily Liu

This piece is one page out of multiple spreads, however, my main contriubtion was creating the infographic featured here. While I had previously featured light-hearted topics, I wanted to challenge myself here to tackle a complex and controversial subject matter with the dignity that it deserved. For the design, I focused on making it mainly informational, which is why there is a lack of illustration, in order to best represent the statistics in a wholistic and transparent manner.

Coastal Crisis

A look at plastic pollution and human impacts on marine environments

ILLUSTRATION BY **EMILY LIU**

Did you know...

Plastic found in the ocean could cover our Earth, with a radius of 3925 miles, 400 times.

Going Deeper

Plastic at different depths of the ocean

0 m

269,000 tons of plastic float on the surface. That's about two particles per cubic meter.

300 m

At the highest concentration in the ocean, there are 12 plastic particles per cubic meter.

1,000 m

Despite pressures at over 110 times than at sea level, there are 2 plastic particles per cubic meter.

10,924 m

Crustaceans tested in the Mariana Trench have been shown to have ingested plastic.

Marine Misery

How marine animals are physically harmed by plastic pollution

1 Entanglement
2 Ingestion
3 Laceration
4 Toxic Contamination

56% of the planet's whale, dolphin and porpoise species have consumed plastic.

Sharp or rough plastic or marine debris can create cuts in the digestive system, leading to infection and internal bleeding.

1/3 of marine mammal species get found entangled in litter.

It's estimated that by 2050, there will be more plastic than fish in the ocean by weight.

Mapping Pollution

Annual estimate of plastic emissions worldwide

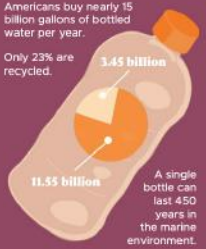
KEY
- 10% +
- 1 - 10%
- 0.1 - 1%
- 0.01 - 0.1%
- 0 - 0.01%
- No data

Bottling it Up

The impact of plastic waterbottles on the ocean

Americans buy nearly 15 billion gallons of bottled water per year.

Only 23% are recycled.



A single bottle can last 450 years in the marine environment.

Counting Plastic

Most common items found in ocean clean-ups and their decomposition times

Cigarette Butts	Plastic Bottles	Food Wrappers
10 years	450 years	20 years

From Sea to Table

The impacts of ocean pollution on human health

55% of fish species commonly consumed by humans have been found with microplastics

1 in 20 adults will become sick after a single exposure to contaminated water

Looking Forward

Ways to reverse ocean pollution

1. Support legislation to curb plastic production and waste
2. Participate in a beach or river cleanup
3. Reduce plastic usage and recycle properly

SCAN FOR *locations eligible for store drop-off recycling*

Sources: National Oceanic and Atmospheric Administration, Our World in Data, Pew Research Center, UNESCO, Washington Post

When I recieved the color palette for this infographic, I knew I wanted to play around with utilizing “atypical” colors to represent a subject by depicting marine life in warm toned colors. I also wanted to improve upon my previous infographics by incorporating a strong central graphic to draw the eye of the reader and make the spread less visually overwhelming. One of my main goals for this piece was to represent a more difficult topic in an approchable way to encourage my community to take action.