UCDAVIS HEALTH MEDICAL CENTER

Medical Interpreting Services

Medical Interpreting Services Department

Newsletter

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Five Fascinating Facts About Black History Month

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February is Black History Month, a great opportunity to celebrate African Americans' many achievements throughout U.S. history. Since 1976, this annual celebration has recognized the contributions of Black Americans to our country.

Here are five important things to know about this meaningful commemoration:

It Started as a Week

In 1915, Harvard-educated historian Carter G. Woodson and minister Jesse Moorland founded what's now known as the Association for the Study of African American Life and History. That organization

established Negro History Week in 1926, which strived to inspire schools and communities to organize local celebrations and host performances and lectures.

Carter Woodson: The Father of Black History

Woodson was tireless in his lobbying to establish Negro History Week as a program to encourage the study of African American history. He dedicated his career to the subject and wrote many books on the topic. His most famous volume is The Mis-Education of the Negro (1933), which has become required reading at numerous colleges and universities.

February Was Chosen for a Reason

Negro History Week was the second week of February. Why? To coincide with the birthdays of Abraham Lincoln and Frederick Douglass. President Lincoln, of course, was the 16th U.S. president and paved the way for the abolition of slavery with his Emancipation Proclamation. Douglass was an escaped slave turned activist and author, and a prominent leader in the abolitionist movement to end slavery.

A Week Becomes a Month

The civil rights movement of the 1960s helped elevate Negro History Week to national prominence... and turn it into a month-long celebration. As a result, in 1976, President Gerald Ford made things official, proclaiming February to be Black History Month.

Honoring African American Men and Women

You don't have to look far to notice the many impressive achievements of black men and women in the fields of science, politics, law, sports, entertainment, and many others. Here are some of the most notable names you're probably hearing celebrated this month (and Biography's website does a wonderful job of profiling many others):

- Harriet Tubman Underground Railroad "Conductor," Civil Rights Activist
- Alice Ball Chemist
- Josephine Baker Singer, Dancer, Civil Rights Activist
- Martin Luther King, Jr. Baptist Minister and Social Activist
- Rosa Parks Civil Rights Activist



#OurHearts



February is American Heart Month

Love your heart. Learn more about keeping it healthy.



February 2025 Calendar

National African American History Month American Heart Month

- 1 Imbolc (Pagan and Wiccan)
- 2 Groundhog Day (US)
- 1-7 World Interfaith Harmony Week
- 7 Black HIV/AIDS Awareness Day (US)
- 7 Wear Red Day (International)
- 6-17 Invictus Games (International)
- 11 International Day of Women and Girls in Science
- 14 Valentine's Day (International)
- 15 Parinirvana (Buddhist)
- 17 Presidents' Day (US)
- 21 International Mother Language Day
- 26 Maha Shivarati (Hindu)

- Mary Jackson Scientist, Mathematician, NASA's First Black Female Engineer
- Maya Angelou Civil Rights Activist, Author, Poet
- Joycelyn Elders First African American U.S. Surgeon General
- Colin Powell U.S. Secretary of State, Four-Star General (U.S. Army)
- Barack Obama U.S. President, U.S. Senator, Lawyer

When gastronomy becomes gastrostomy: the dangers of machine translation typos

Source: https://english.elpais.com/technology/2024-11-17/when-gastronomy-becomes-gastrostomy-the-dangers-of-machine-translation-typos.htm

Programs that facilitate the understanding of texts and dialogues in another language can replicate, replace, or overlook original errors, which can have significant consequences in legal, medical, or conflict-zone settings



Almost all translation professionals defend their work against automatic tools by recalling notable errors, such as the now infamous promotion on the city of Santander's website. This site, translated mechanically without human oversight, famously turned references to the Botin Centre (named after the prominent local financial family) into the "Loot Center," and mistranslated the historic guarter (casco viejo) as "historic helmet."

A recent study by Santiago Rodríguez-Rubio, a professor at Pablo de Olavide University (UPO) in Spain, highlights another issue with common machine translation tools: typos. These errors may be replicated, replaced, or ignored altogether, posing serious risks in critical fields like medical, financial, legal, or conflict-zone communications.

Stephen Ibaraki, an international technology consultant and founder of AI For Good, illustrates the positive side of such technology: "An Indian farmer, unable to speak all 22 official languages, can now communicate their needs using just a phone. In Africa, where AI is gaining ground, ordinary people can access medical help or enhance their financial inclusion. Meta's latest smart glasses have simultaneous translation capabilities, a feature expected to become widely available."

However, in complex scenarios, everyday applications reveal vulnerabilities. Fourteen years ago, the U.S. Defense Advanced Research Projects Agency (DARPA) launched the Transtac project, aimed at developing a translation system for tactical use in 25 conflict scenarios, including checkpoint interactions, key information exchange, and medical assessments. While the system achieved 80% accuracy — considered quite good — it fell short for use in delicate situations where a mistake could lead to violence.

Medical translations also demand heightened precision. Researchers from the universities of Michigan, New York, and Washington analyzed OpenAl's Whisper application and found hallucinations (mistakes or fabricated sentences presented as accurate) in 38% to 80% of audio-to-text cases. Whisper — used for transcribing meetings and creating subtitles — has also found application in medical centers for recording patient consultations.

Such mistakes could have "really grave consequences," particularly in hospital settings, Alondra Nelson, a Princeton University professor and former director of the White House Office of Science and Technology Policy, told the Associated Press. "Nobody wants a misdiagnosis. There should be a higher bar."

In one transcript reviewed, Whisper invented a nonexistent drug called "hyperactivated antibiotics." OpenAI acknowledged these findings, emphasizing that while the company is working on reducing hallucinations, the tool should not be used in "high-risk domains."

The same risks apply in legal and financial settings, where precise language is crucial. Rodríguez-Rubio cites an instance where an expression meaning "excess of liabilities" was mistakenly rendered in English as "axes" of liabilities.

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To test machine translation systems, Rodríguez-Rubio introduced 1,820 typographical errors into source texts previously used in specialized Spanish-English dictionary studies. The analysis revealed that "repetition of the original typo is the most frequent phenomenon" across two systems tested: Google Translate and DeepL. While Google Translate performed better, both systems exhibited deficiencies, such as replicating typos (e.g., the typo excusive was translated as escusivo), deleting errors, or transforming words (e.g., if vacancies was accidentally written as vancies, it was turned into vans).

Rodríguez-Rubio, a UPO doctor and member of the Department of Philology and Translation, does not oppose automatic translators, quite the opposite. His research is meant to "illuminate the capacity of these systems to manage typographical errors in source texts and provide a starting point for their improvement."

"Al's applications in language correction are undeniable. Technology has always been, and will continue to be, a fundamental pillar, though this does not preclude examining its potential drawbacks — such as information noise, immediacy culture, blind trust, and reduced reflection," he notes. The human element, he emphasizes, remains crucial.

For Rodríguez-Rubio, the spread of typographical errors "is a symptom of a deeper problem." "The typos that plague modern texts are an indicator of the underlying problem of the dysfunctions of the technological revolution, of the reconfiguration of the role of man and machine in work processes, of the culture of haste and immediacy," he says.

While the study's "limited scope" focuses on how original errors affect the translation of isolated words or short phrases, it suggests ways to enhance AI systems. He proposes further exploration into synonymy (e.g., rejection versus refusal), antonymy (such as DeepL's translation of understanding as without understanding), and paronym (detecting near-homonyms like gastronomy versus gastrostomy).

The success of machine translators hinges on their data sources — the backbone of any AI application. If source errors are perpetuated or worsened, system accuracy falters. "A strong data foundation is at the core of generative AI capabilities," cautions Baris Gultekin, AI lead at Snowflake, in the presentation of a study conducted in collaboration with MIT Technology Review Insights.

Supporting this, research in Nature shows AI results degrade when trained on AI-generated data. Ilia Shumailov of the University of Oxford likens the process to repeatedly copying a photo. "If you take a picture and you scan it, and then you print it, and you repeat this process over time, basically the noise overwhelms the whole process," he says, leading to what he terms "model collapse."

Google is aware of these challenges and is working to address them. A spokesperson stated: "Translate learns patterns from millions of examples online. Unfortunately, these patterns sometimes yield incorrect translations. We value user feedback for quick corrections and rigorously train and test our systems to uphold quality across all our tools."



New Staff Profile: Nayeli Cruz

Nayeli Cruz joined UC Davis Health Medical Interpreting Services in November of 2024. She is a native of Sacramento and grew up speaking Spanish as her first language. She attended Valley High School where she took classes in Spanish to expand her knowledge. It was in 10th grade that she started thinking about her future career and had an opportunity to interview a family friend who worked as a medical interpreter. Nayeli learned about the Healthcare Interpreter Program at American River College and enrolled as soon as she could. She was excited to start a hospital externship toward the end of the program, however, those plans were interrupted by the COVID pandemic. Naveli expanded her medical knowledge and experience by attending a vocational program for pharmacy technicians and by volunteering at Sutter hospital for 6 months. Shortly after, she attempted to take the National Certification Exam for Medical Interpreters (CCHI) and passed on the first try. She was interested in the remote ways of delivering language services and found the perfect setting at UC Davis Health as a contracted agency interpreter. After her first two months as a UC Davis Health staff interpreter, Nayeli enjoys servicing video and telephone calls. She says that this work is never dull because every patient case is different. She finds the emotionally involved sessions the most challenging because of the balance she needs to find as an interpreter so that patients are not interrupted. Outside of work, Nayeli enjoys spending time with her sisters, going to the gym, and playing with her puppy.

Welcome to the Medical Interpreting team, Nayeli! We are happy to have you onboard.



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Questions? Comments? Please call Medical Interpreting Services at 916/736-5191 or e-mail <u>hs-medinterpreting@ucdavis.edu</u>