SCI-TECH

"There is something haunting in the light of the moon."
JOSEPH CONRAD POLISH WRITER

Yale radiologists say their field needs tailored approach to patients

BY MEKHI GARDNER
CONTRIBUTING REPORTER

Yale physicians who specialize in radiology said their field should strive to make medical reports more digestible to patients.

Jonathan Mezrich, a Yale School of Medicine professor who specializes in emergency radiology and trauma imaging, published an article this month arguing that clinical radiology reports are written for physicians and not patients. Their use of jargon may result in patient anxiety, he said, proposing that radiologists should write their reports with patients as their primary audience.

"Since the enactment of the 21st Century Cures Act, patients have been receiving immediate access to their radiology reports through electronic patient portals, rather than having the information relayed through their treating providers," Mezrich wrote in an email to the News. "This changes radiology's audience significantly, and so our specialty needs to make adjustments."

The 21st Century Cures Act, enacted a decade ago, required that patients receive immediate access to their electronic health records as soon as they become available. As a result, almost half of radiology reports are seen by a patient before a clinician can give them necessary context, according to one 2024 study.

Howard Forman, a Yale radiologist and co-host of the Health And Veritas Podcast produced by the School of Medicine and the School of Public Health, echoed Mezrich's arguments.

"I believe that radiology reports, historically targeted at clinicians, are often confusing to patients," Forman wrote in an email to the News. "We would do well to bridge that communication gap in an era of patient-centeredness and early patient access."

He said that the field of medicine must do what it can to adapt to an increasingly digital patient population, which could include making reporting more accessible.

Melissa Davis, a Yale radiologist and the vice chair of medical informatics in the Department of Radiology and Biomedical Imaging, agreed that more patient-centered reports could be beneficial overall but expressed concerns about process.

"Are you asking the radiologist to do it at the time of their report? If you are, you're going to run into some downstream issues," Davis said in a Zoom interview. "So if I have to essentially generate two reports, it's going to take me twice as long to get that report out."

She suggested that change could instead happen at the organizational level, led by health systems with radiologists taking a supportive role.

Mezrich and Forman expressed support for a more radiologist-led approach.

Forman said that he works to be concise in his reporting, highlighting information that is most relevant to a broad patient population. He said he encourages the residents he works with to develop similar methods.

He highlighted three specific priorities in his reporting: accuracy, accessibility and timeliness, and suggested that the specialty should seek out opportunities to improve in service of these pillars.

Mezrich expressed a similar stance.

"Radiologists themselves need to take the lead, writing our reports with the lay audience in mind," Mezrich wrote.

All three physicians expressed support of artificial intelligence as a potentially useful tool.

Davis suggested that organizations could implement assistive applications, AI-based or otherwise, to achieve widespread translation.

"I don't think the radiologist doing it is scalable, but the system doing it, leveraging these tools, could be scalable," Davis said.

A number of tools that can interpret existing radiology reports in a more accessible way already exist. Davis pointed to Scanslated, a Florida-based healthcare technology company, as an example of a potentially useful platform in her interview.

The company has developed software that analyzes and translates standard radiology reports, returning a patient-focused format, according to its website, and is already being utilized around the country.

Forman, who has studied the usage of AI tools to improve patient understanding of radiology reports, cautioned that these tools are not a solution on their own. He said his team has found evidence of promising future uses, but that these tools will require careful physician supervision.

Mezrich noted similar concerns.

"AI will ultimately be helpful, as it can generate plain language summaries and track follow-up, but radiologists still need to carefully review AI outputs at this juncture as the technology is still new and has its kinks," he wrote.

The 21st Century Cures Act was signed into law on Dec. 13, 2016.

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KIMBERLY ANGELES / PHOTOGRAPHY EDITOR
Platforms created by students affiliated with the Yale Computer Society are often used more than Yale's official tools. Student developers said while the University's official systems provide data, their apps provide improved presentation for users.

Student-made apps keep symbiotic relationship with Yale systems

BY GHIZAL HALIM
CONTRIBUTING REPORTER

If one were to ask Yale undergraduates what platforms they use to build their class schedules, check tonight's dinner menu or look up a classmate, most of their answers might not be an official Yale website.

Student developers, many affiliated with the Yale Computer Society, or y/cs, have provided students with no shortage of apps. Some of the most popular include CourseTable, Yalies.io and YaleMenus which, by many students' accounts, are preferred to the University's official platforms.

While Yale has not formally acquired those apps, some student developers told the News that the parallel relationship makes sense: students improve the presentation, while the University remains in control of the data and systems behind it.

"I think there's a practical reason student-built apps can thrive without being officially adopted: they often make Yale's existing services easier to use, while the university remains responsible for the systems that handle official records and transactions," Jeet Parikh '28, the president of y/cs, wrote in an email to the News.

In 2017, brothers Eric Foster '20 and David Foster '23 launched Yale Menus, an app that allowed students to look through dining hall menus in a simpler way. Later, Yassin Mudawi '27, who is the chief technology officer of the News, created YaleMeals, building on the work of YaleMenus and offering students a more accessible Yale dining platform with features like scheduling meals with friends.

YaleMeals was downloaded over 700 times in the first month of its release, Mudawi told the News in April. Yet Yale Hospitality did not formally adopt either app, instead encouraging students to rely on the official webpages for up-to-date menu information.

Parikh wrote y/cs tools are built around official Yale services to improve the student experience.

"For example, CourseTable presents information from Yale Course Search, but students still use Yale's official system to register for classes," Parikh wrote. "Yalies.io helps students find directory information, while changes to that information remain in Yale's official systems. YaleMeals makes dining information easier to browse using data from Nutrislice, the platform Yale uses for dining menus."

That division of labor also places responsibility on student developers. Parikh wrote that y/cs restricts access to its platforms through Yale's Central Authentication Service — the same NetID login used by official University sites — and other security measures.

"From our perspective, one important responsibility is handling access and data carefully," Parikh wrote.

Maintaining student-developed sites is a recurring challenge for undergraduates who graduate every four years. Aryan Sharma '29, one of the current leads of CourseTable, said in a video interview that the platform is passed down to younger student cohorts who continue maintaining the sites.

He added that he thinks the biggest appeal of the app is "evidence to support their choices" in classes.

Eric Villafana '30 said CourseTable's data on course ratings helped him select his first classes at Yale.

"I used CourseTable because I'd rather have a good professor than a bad one," he said. "There was nothing on Yale Course Search except for a description of the class."

Liz DeRosa, the director of communications at the Poorvu Center for Teaching and Learning, wrote in an email to the News that supporting student-built apps falls outside the center's purview. But she described the standards the center uses to determine whether it wants to adopt educational technology.

"When evaluating a new educational technology tool, we consider whether it meets a high demand with broad use cases; complies with the university's security, accessibility, and privacy standards; fills a functional gap in our existing portfolio; and has a long-term funding plan to ensure sustainability," DeRosa wrote.

The YaleMeals app is available for download through the Apple App Store on iOS devices.

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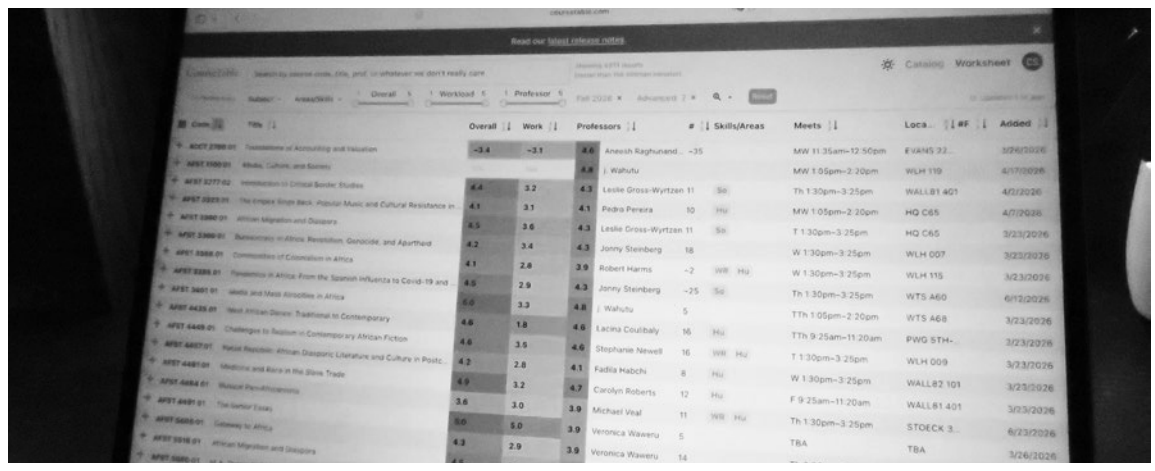

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