CAC is Like the Driverless Car—Both Need the Human Touch

By Valerie Watzlaf, PhD, MPH, RHIA, FAHIMA

I have not coded a medical record in many years, but I love coding. I love to use the codes to examine all aspects of coding processes and disease-related research. In the past, I worked on a team that examined the computer-assisted coding (CAC) software to enhance antifraud activities in 2005; examined code capture differences in the ICD-9-CM and the ICD-10-CM systems; interviewed physicians about their outlook on ICD-10-CM/PCS and its effect on their practice; and worked on developing a predictive model to determine coding productivity when given a specific length of stay and case mix index. Working on this research was fun and rewarding.

Some skeptics might say that once CAC and machine learning are perfected, the need for human beings in coding will be gone and no further research will be required. I disagree. Yes, we have had extensive advances in CAC—especially since 2005. But human coders will still be needed to analyze, decipher, and use their expertise to make correct code decisions based on the recommendations by CAC systems. Coding is a very complex profession and requires extensive knowledge in anatomy and physiology, pathophysiology, clinical indicators, medical terminology, pharmacology, the format and organization of the electronic health record (EHR), and clinical documentation integrity.

CAC reminds me of driverless car technology. As much as I love coding, driving is a different story. I would love to have a driverless car. But I think it will take a long time before the driverless car is perfected—especially until it is perfected to the point where it isn't even necessary for a human to be in the driver seat at all, and I can happily sit or recline in the back seat while the car moves perfectly along the highway, always maintaining the correct speed, knowing when to slow down, when to change lanes, when to use the turn signal, and when to hit the brakes.

Coders, keep on coding well. We need to be the real intelligence behind artificial intelligence. And that means we can continue to research all the many aspects of coding systems and the systems' ability to capture the correct codes as well as coding productivity and quality. Yes, CAC technology will get better and better and become a tool that the coder will continue to use to assist them in their coding decisions. However, in order to enhance coding quality, the coder will be needed to ascertain that the correct code is assigned, that it coincides with provider documentation, and that the sequencing aligns with Uniform Hospital Discharge Data Set guidelines. Of course, machine learning tools such as CAC will be used to assist with the coding process—but it will be quite difficult to fully replace an excellent coder with machine learning.

And while CAC will not fully replace human coders, I do hope that the driverless car is in the future. I'm looking forward to kicking back, sipping a soft drink, and enjoying the landscape as I do not drive by.

Valerie Watzlaf (Valerie.Watzlaf@ahimaboard.org) is vice chair of education and associate professor at University of Pittsburgh.

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