

OPINIONS

DIGITAL AGE

Solving the new literacy crisis

Today's undergraduates are the most sophisticated users and consumers of technology colleges have ever seen. This is not surprising. Generation Z, those born after 1996, are digital natives. They have never known an analog world.



Barbara D. Boyan

Their intelligent, inquisitive faces glow in the near-constant illumination of smartphone, tablet and laptop screens. But in terms of the language of the computers that define much of their generation, many are in a dark age.

In the current world, with big data, machine learning and artificial intelligence dominating more and more professions and intellectual disciplines, we can no longer leave the language of computing to specialists. Digital literacy is a new essential literacy.

Whether engineering, art or English major, a fully literate person today must have a basic command of computer science. In Virginia, higher ed and industry are coming together to help make this happen.

Thanks to partnerships such as the Washington, D.C.-based Capital Collaborative of Leaders in Academia and Business (CoLAB), students no longer have to be tech majors to gain digital literacy. Five Virginia universities — George Mason, the University of Richmond, the University of Virginia, Virginia Tech and Virginia Commonwealth University — are part of a Virginia, Maryland and Washington, D.C. initiative to offer a digital credential to students in all majors.

To earn the digital credential, students complete a suite of introductory computer science courses covering fundamentals of data science, cybersecurity and software engineering. These students graduate with digital literacy as well as the skills to be self-supporting immediately after graduation. They also receive exclusive hiring advantages with 14 participating companies including Capital One, J.P. Morgan Chase and Northrop Grumman.

The digital credential goes to the heart of an age-old question: Is undergraduate education for gaining higher learning in the world of ideas, or is it for gaining job skills? This credential program answers with a question of its own: Why choose? Students can now gain highly marketable skills without having to sacrifice their avocation in the arts or humanities.

This opportunity matters because nobody wants to see young people leave college without a way to create prosperity for themselves and their families. The cost of an undergraduate education is rising and the student debt crisis is real. It would be a bleak world if everyone who will need to repay college loans had to major in a STEM discipline to do so. The digital credential program offers all families a way to encourage their college student to study what he or she loves while also forging a path to self-sufficiency.

This issue is personal to me. I am the dean of an engineering college and a biomedical engineer, but I earned a bachelor of arts degree (BA) with a minor in art history. I care passionately about the arts and humanities and the foundation that literature, philosophy and art provide for meeting life's challenges. I am also the parent of a first-year college student who is a humanities and sciences major but will also earn the digital credential before graduation.

It occurs to me that our era resembles the rise of literacy in early modern Europe. In the late 1400s, few Europeans could read and write. The complex code of letters and sentences was largely the domain of the church. As literacy advanced, it brought with it an unprecedented era of thinking, ideas and communication. That rate of intellectual progress would never have been achieved if reading and writing had been left to the experts.

The language of computing is in a similar transition. Once the property of scientists, mathematicians and engineers, programming knowledge is now expanding to a broad base of the population. In the short term, this trend will advance workforce development and economic independence. In the long term, it will spark a new era of creativity and ideas, just as the rise of literacy did centuries ago.

Who knows what wonders await?

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BUT TWO?

Just in time for Halloween — an October surprise



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In politics, what's October without a surprise?

But two?

On Tuesday, the Richmond Times-Dispatch reported that the Northham administration — in building the two-year budget that it will introduce in December — wants to know how and where state agencies can do more with less.

That this got out a week before the legislative elections created the impression — intentionally or not — that the administration is anticipating an economic downturn and scrambling for savings with which to balance the budget.

It's not a story Democrats want to tell ahead of the elections, if only to keep the focus on hostility to Donald Trump, worries about health care and resentment over Republican inaction on gun control after the May massacre in Virginia Beach.

Also Tuesday, the grapevine reported that House Democrats will be meeting in Richmond the Saturday following the elections to discuss organization and leadership, with many in their ranks — confident they'll be restored to the majority — expecting to choose a speaker, floor leader and caucus chair.

It's not a story that Democrats want to tell ahead of the elections, if only to avoid queering the chances the party takes total control of Virginia government for the first time in a generation — 26 years, to be precise.

On the budget, Aubrey Layne, Gov. Ralph Northam's secretary of finance, has been warning the General Assembly money committees of a



BOB BROWN/TIMES-DISPATCH

House Minority Leader Eileen Filler-Corn, D-Fairfax, greets supporters during the General Assembly's special session on July 9 to address gun legislation. If Democrats gain control of the House of Delegates in Tuesday's elections, she is among the candidates mentioned for speaker.

“structural imbalance” between revenues and expenditures; that even as the former increases, it can't keep up with increases in the latter.

The last time a Democratic governor used that term — Mark Warner in 2004 — Virginians were hit with a \$1.4 billion tax increase for education, law enforcement and the social safety net.

Helped by a split among Republicans, Warner — who, as a candidate in 2001, vowed not to raise taxes — battled the legislature into May before prevailing. The tax rise convinced a jittery Wall Street to affirm Virginia's highest-possible, triple-A credit rating.

Among the reasons Warner broke his no-new-taxes pledge: the ever-rising cost of the car-tax rollback won by his Republican predecessor, Jim Gilmore. It now costs nearly \$1 billion a year to make whole local government for reductions in a tax they still impose and — some — still increase.

Democratic majorities in the House of Delegates and Virginia Senate could do away with this clumsy scheme. They could direct the state to spend that money on, say, K-12 educa-

tion, which, the State Board of Education said last week, requires another \$1 billion a year. Also, localities could be freed to control their own fiscal fate.

It could be done by repealing the Dillon Rule, a legal principle — named for the Iowa judge who crafted it in 1868 and adopted by Virginia in 1896 — that has limited the powers and prerogatives of local government.

Those restrictions, which only the General Assembly could lift and does so on a case-by-case basis, can be silly as well as significant.

Henry Howell, the populist Democratic firebrand who ran three times for governor four decades ago, complained that his hometown, Norfolk, required the legislature's consent to adopt a pooper-scooper ordinance.

But the Dillon Rule also prevents cities and counties from closing their buildings to firearms, taking down Confederate monuments and fully deciding what to tax and at what rate to tax it.

Republicans say the Dillon Rule blocks localities from becoming a high-tax hell. But Republicans also say state government hasn't a monopoly on sound ideas, one

of which may be to finally give local government a freer hand in managing finances.

And it may have a friend in Northham.

He's anything but tax-phobic, winning, almost effortlessly, higher levies for highways. Also, Northham vetoed Republican legislation that would have prospectively limited localities' authority; in this instance, to shelter illegal immigrants from federal law enforcement, though not one has said it would declare itself a so-called sanctuary city.

But there's a missing piece in this potentially historic realignment in the relationship between the statehouse and the courthouse: a Democratic majority in Richmond.

There is little doubt that Democrats, particularly the national strain increasingly abundant in the General Assembly, won't be more sympathetic to local government than Republicans.

And the prospective House Democratic leadership signals as much. Eileen Filler-Corn, the early favorite for speaker, is from Fairfax, a county long frustrated by the state's tether. Lashrecse Aird, another candidate, represents another locality similarly discomfited by the state, Petersburg.

Ditto in the Senate, where Dick Saslaw of Fairfax tops the long-settled Democratic leadership lineup.

This intersection of issues and individuals, one would think, would have been a powerful opportunity for Republicans to press — even at this late hour — the anti-tax theme that, at minimum, arouses their base and piques the concerns of late-to-tune-in independents.

Talk about an October surprise.

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MIND YOUR MANNERS

In baseball, the most valuable rules are unwritten

WASHINGTON

In the rush of the passing seasons, sports memories fade like photographs left in sunlight. But before memories of the 2019 World Series are bleached by time, let us hope that one episode



George Will

from Tuesday's sixth game will be indelible. A nation that now more than ever needs a reminder of the role of manners in smoothing

life's rough edges got such a reminder. Two young men did not mind their manners, and two mature men put aside their intense rivalry of the moment and firmly affirmed some standards.

Alex Bregman, 25, the Houston Astros' supremely talented third baseman, is so fierce about his craft that, when he was at LSU, his coaches gave him a key to the batting cages rather than endure calls from him wanting to practice in the dead of night. In the first inning Tuesday night, he hit a home run, which was admirable, and then did something that was not: He admired it. For the first and surely the last time in his major league career, he ostentatiously carried his bat all the way to first base before discarding it. This was preening.

Which is an infectious virus. In the fifth inning, Juan Soto, the Washington Nationals' 21-year-old prodigy, crushed a monster home run — and carried his bat to first base because he thought this was “pretty cool.”

After the game, Bregman, who carries baseball's culture in his DNA, apologized. Then did so again. Then a third time. His manager, A.J. Hinch, 45, evenhandedly disapproved of both players' comportment. Soto's manager, Dave Martinez, 55, deplored Bregman's behavior as much as Bregman did, and said: “I didn't like it when [Soto] did it as well. It's a conversation I'll have with Juan. That's not who we are.” Or who we intend to remain.

Although baseball once was unambiguously “the national pastime,” other sports have prospered as Americans' leisure time and discretionary income have increased. Competition for sports fans' attention and dollars has intensified now that there are just six weeks between the last NBA championship game and the first NFL preseason game. Baseball, however, remains unique — and indispensable — because it tries to remain an oasis of reticence in a culture of exhibitionism. There are those in Washington who could learn something important from the Nationals' manager.

Football has been blighted by endzone dances by players who are pleased with themselves for scoring touchdowns. They should be reminded of what Vince Lombardi supposedly said to one such preener: “The next time you make it to the end zone, act like you've been there before.”

Baseball inoculates itself against unseemly behavior by means of rules that, although unwritten, are not unenforced, as Hinch and Martinez demonstrated. Just as the common law is derived from ancient social practices and judicial precedents, baseball's codes are the game's distilled mores. Their unchanging purpose is to encourage players, in the midst of passionate exertions, to show respect for opponents and the game. In baseball, as in the remainder of life, the most valuable rules are unwritten. By the observance of unwritten rules, mostly learned from parents, we avoid being codified into social death — smothered by written rules and drowned in formal adjudications as learned civility withers.

On June 2, 2010, with two outs in the ninth inning, Detroit Tigers pitcher Armando Galarraga was one out away from a perfect game — 27 batters up, 27 down — something that had only been

done 20 times in more than a century of major league baseball. Then first base umpire James Joyce made an obvious mistake, calling the 27th Cleveland Indians batter safe when he was clearly out on a ground ball. With nothing more demonstrative than a wry smile, Galarraga stoically went about getting the 27th out. In post-game comments, Joyce forthrightly regretted his misjudgment, and Galarraga said, in effect: To err is human, and tomorrow is another game. The next day, the Tigers took the unusual step of having a player — Galarraga — present the lineup card to the home plate umpire who, as is standard practice, had been the previous game's first base umpire. Galarraga and Joyce shook hands.

Now, which would you have preferred, a perishable memory of what would then have been a rare perfect game, or this unforgettable example of mutual graciousness? Of course.

Some say that baseball's unwritten standards are out of date. But as has been well said (by a character in an Alan Bennett play), standards are always out of date — that is why we call them standards.

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