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Unlearn

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UNLEARN

Timothy P. Schultz, PhD, Associate Dean of Academics at the Naval War College, delivered a version of the following as an address at NWC's 13 November 2019 graduation ceremony.

Graduates—thank you. There is no higher privilege than interacting and learning together with people like those in this room. I have been looking forward to this one last engagement with you—the final gathering before the scattering.

Families: Let us enjoy this time together. It is your time, after all, and we owe you. Don't let the formality of this ceremony make you shy.

Faculty: Graduation is our crystallizing moment. You have given these graduates a new life of the mind—one book, one lesson, one seminar, one war game, one tutorial, and one red-ink-covered page at a time.

A poet said, "A professor is one who talks in someone else's sleep." The best professors change your thought life; they speak to you in your dreams. So, you have that to look forward to. It will be like having Milan Vego's 1,500-page book on joint operational warfare as your pillow. And imagine decades of pillow talk with professors like Marc Genest and Tom Nichols . . .

Recently I learned a couple of new words: *lapidary* and *tortuosity*. *Lapidary* relates to the art of etching in stone. *Tortuosity* is a technical term meteorologists use to describe the degree of zigging and zagging by a bolt of lightning. Your education here has been both lapidary and tortuous—but in a good way!—both engraved in stone and full of unpredictable power. I'll come back to these words later.

First, let me voice some dissent within this storied institution of higher learning. We talk a lot about being lifelong learners. That's good—but not good enough. I expect *more* from our graduates; I want you to be lifelong *un*-learners. Dedicate yourselves to the higher, and more elusive, art of *unlearning*. Why? Because unlearning is the mark of true learning.

Think of the things we've had to unlearn in the past (and it was hard!):

- We had to unlearn that Earth is the center of the universe.
- Doctors had to unlearn that leeches are usually a good idea.

- The cavalry had to unlearn the value of the sword and then unlearn the value of the horse, to remain relevant in the twentieth century.
- Navies had to unlearn the battleship mind-set.
- Air forces had to unlearn that the bomber always gets through.
- Garry Kasparov had to unlearn how to play chess after losing to a computer.
- As a U-2 pilot [at 70,000 feet], I had to unlearn my old worldview and perceive how the Earth curves, its borders blur, and its inhabitants compete under a thin veil of atmosphere. It changed my perspective.

Think of the things that *you* may have to unlearn in the future:

- Quantum computing may require us to unlearn our traditional cryptology, and how we keep secrets.
- You may have to unlearn the AI-constructed “deep fake” images that will appear on your screens and enter your minds.
- You may have to unlearn the traditional limits of human capability.
- You must unlearn the pretensions that have set themselves up as truth.

In my office I have a “Table of Disruptive Technologies” that is designed like the periodic table. It includes elements such as “wireless energy transfer,” “biohacking,” and about a hundred others. We constantly discover elements that disrupt our status quo understanding of the world. What new forms of expert knowledge will the future require? Who knows? But the first step will be to unlearn some of the old forms of expert knowledge so you can lead in the modern world. In that sense, unlearning is a process of creative destruction.

On your first day at NWC last year I shared with you this quote from Lincoln: “The dogmas of the quiet past are inadequate to the stormy present.” It is hard to unlearn dogma, but you must. Ralph Waldo Emerson, a contemporary of Lincoln, said, as many of you have heard, that “a foolish consistency is the hobgoblin of little minds.” In the same poem he advised, “Speak what you think now in hard words, and tomorrow speak what tomorrow thinks in hard words again, though it contradict every thing you said today.” These are the practices of life-long unlearners. They seek hard truths and speak—and write—hard words. Rear Admiral Grace Hopper, a pioneering intellect in computers, had a clock on her wall that told the correct time—but it ran counterclockwise. Why? She wanted to demonstrate that the argument “We’ve always done it that way” is a refuge for the complacent. She was an unlearner.

I am not advocating for change for the sake of change; all of us have seen fads come and go. I am advocating for thinking that is simultaneously rigorous yet

unbound by convention. And developing that ability demands time and energy, because it is inherently inefficient. It is easy to visualize your education as something that is efficient—a ladder, say. Expend some energy in a predefined direction and you'll get to the next rung. It is one-size-fits-all, and everyone pretty much does the same thing. In a very basic sense, you've done that here; when you climb these stairs and walk across the stage, you will have stepped up a rung. That's great, and we're here to celebrate that.

But it's not *just* that, because real learning—true education—is much more. So let me make a different comparison. Learning—and unlearning—is less like a ladder than like climbing a cliff, or a rock wall. The rock wall is the unknown. You find your own way up by grasping new things and contemplating new directions. You have done some free-climbing this year, in the form of your electives, your papers, your research, your presentations, and your discussions with each other as you've developed your own intellectual strengths and abilities; you've "gripped" new ideas. Now you're moving onto a steeper face—and there are no safety ropes. Here are some things about climbing a rock wall that are similar to your ongoing education:

- There is no straight line.
- It requires (mental) agility.
- It requires tenacity and focus.
- It requires taking risks.
- It requires a high index of suspicion.
 - Is that handhold as good as it appears to be?
 - You have to do some unlearning on the way up. Some grips and ledges may not be what they appear. Your assumptions literally may not hold; in fact, they may be fatally wrong if they cannot support the weight you thought they could. They may have to be unlearned.
- It requires innovation. That means there may be some trial and error, some false moves that reveal better moves. If you're not making mistakes, you're not moving very far.

And just as there are hazards to navigation at sea, there are some hazards to navigation on the rock wall.

- One of them is thinking you know more than you actually do. Stephen Hawking said the greatest enemy is "not ignorance, it is the illusion of knowledge." The ancients called this hubris. And everyone in this room today suffers from it.

- Another hazard is a lack of ideas. If you only have one idea, one method, one technique, you'll get stuck—and passed by.
- An inability to think a few moves ahead poses another hazard, and so does comfortably clinging to one spot or one idea. If you cling, you can't move; when you cling to doctrine, it becomes dogma.

So when you leave here today, you'll be making it up as you move up; there is no set path. But the ideas you've learned here will provide future traction; they are the grips and toeholds and ledges that allow you to climb higher.

And here is where this idea of *lapidary* comes in. You have had an immersive, lapidary experience here. It takes time, energy, and focus for things to become etched into stone, and the ideas you've grappled with here are lapidary; they are engraved in—sometimes pounded in. They are anchor points in the rock wall—things that you can grasp and that can give you purchase.

So, your professors won't be speaking to you just in your dreams but during your climb as well. You can recognize their influence by your familiarity with grappling with complex problems; otherwise, you may see nothing but slick, steep rock. And as you learn, you can etch more ideas, more friction points into the stone and use them to move in different directions. So, an effective education is lapidary.

People who climb rocks and face the unknown also know something about the value of threading a pathway from point to point, from strength to strength—often an unpredictable pathway. And here's where *tortuosity* comes in. Remember, a lightning bolt is measured by its degree of tortuosity. Step back and look at the pathway a climber ends up taking; maybe it's like the pathway you've navigated while here. It very likely zigs and zags; it has tortuosity. That is because education is nothing like a straight line; education is inherently inefficient. It's tailored; no two paths toward wisdom are exactly the same. And that, like a lightning bolt, is a mark of power—a symbol of creative destruction. Your climb may seem random and wandering to an observer below, but it has its own internal reasons and external influences. And it is a display of the energy you are gathering and harnessing for a future purpose. Your lifelong learning and unlearning should create heat, light, and fire. And it will etch your mark into the rock.

So, yes, you have climbed a ladder here, and you now have a much better view. But, more importantly, you have spent some time on the face of the rock, testing new ideas and techniques, while you yourselves have been tested as well.

So, think of your education in these terms.

- It involves a commitment to unlearning.
- Its lapidary etchings and carvings create lasting value.

- It lets you see and explore different directions; it has powerful tortuosity.
- Lifelong unlearners don't care much about ladders; they prefer to free-climb mountains—they prefer to discover.

This is a constant struggle. There are effective ways to cultivate your mind, but none of them are efficient; there is no straight path of least resistance. In some sense, your education is like war. You have learned that in war there are no easy solutions or shortcuts, and it's the same with learning. Both are difficult, messy, unpredictable, and reactive. In war, as in education, the results are never final—and you're never home by Christmas.

As you climb your rock wall, your struggle is against more than the pull of gravity. You struggle against what plagued the ancient Greeks and their Olympian gods: the constant pull of hubris—pride in dearly held pretensions; a resistance to a greater truth, and satisfaction with a lesser one; and an unwillingness to unlearn. The modern world and its little gods of metal and silicon only strengthen these forces against which you must climb. They must be fought and overcome in your minds and in the future you will create.

And what if you fall? As the great visionary novelist Ray Bradbury advised, “Build wings on the way down.”

So now: go forth, act justly, love mercy, walk humbly, confront evil, unlearn, and climb on.