The Best Cybersecurity Experts are those who STOP, and STOP - and understand the Zeigarnik Effect

Our minds want closure, we want things to finish, and when they are finished, we can put them aside.

Take for example a home project, a new cooking recipe, a task that needs to be completed, but you cannot complete that task as you are missing something, that one last piece.

How does not finishing a project increase learning?

- What happens is that you begin to focus more on that task.
- It nags at you.
- You can't help but think about that task.

Where can you obtain that one last piece you need, that one last ingredient? How can you obtain that final thing to finish that project. If you are doing some project over the weekend, and you work during the week, you will then make plans to get that last piece during some part of the workday.

- Think of any TV series you watch what was last year's ciffhanger
- A news report that gives only part of the story then follows with "more news at 10"
- A magician, so what's the trick!
- And the murderer is...

WHO!! The tension is killing us

If you are familiar with music, it's the tension of a dominant seventh chord, that leaves you hanging, waiting to finish.

What is happening is that you are Learning.

You are setting off hundreds of neural networks associations focusing on how to complete that finished project.

As while saying goes, "just get er done." Its not a good one for security.

While we may get our task completed, the problem is that the task may not be remembered when they are finished unchallenged, they may even be forgotten once that task is complete.

If a task is easy, we complete the task; the task is done, closed, it's finished.

(Again, as we have seen in earlier posts it's not so much the remembering as it is the retrieval, so eventually, you will get it, but you wind up wasting much more mental energy than needed over the long term)

When a task is not completed – we start to fire up those hundreds of neural networks to figure out how to complete that task, but in the process, we learn, we increase the strength of the associations.

Some researchers suggest that is a double copying of the memory. We work on a task, its stored in working memory and when its done, it can be stored in long term memory.

However, when tasks are not completed, they are actually coped twice or even multiple times. As the task is going on, its not being completed, the brain copies in both working and long-term memory that part of the task. As the task continues uncompleted, more parts of that task are again, copied in working and long-term memories, and so on. When the task is finally completed, working memory is moved to long term memory, but not just one copy, there are now multiple copies (via the multiple neural networks associations that get established, and the more associations one has, the quicker the retrieval of that information becomes)

However, you are not just focusing on that last piece; you are focusing on the entire project

This is the

The Zeigarnik Effect

A part of the Gestalt principle of closure

Why, well simply, it's easier.

Our mental processes do not want to work hard; we want to conserve our mental energy (the principle of conservation of energy)

This is not to imply we are lazy. It could have been an evolutionary trait.

Besides, it makes us feel good.

We are motivated to complete a task; it's a sense of achievement, it satisfies a cognitive dissonance, to reduce uncertainty. Not completing that task sets off our brain to waste energy into finishing that task, and we simply do not want to do that.

So, how does the Zeigarnik Effect Impact cybersecurity

Cybersecurity professionals work best in small chunks of different individual tasks. Likely because of the nature and breadth of activities a cybersecurity expert must complete. Since cybersecurity experts will have a host of activities they must be responsible for, so a rush through of a task is not beneficial.

Therefore, since the Zeigarnik Effect is complementing the Gestalt law of closure, so you need to break that closure:

- 1. Slow down, Stop, reflect on what you are doing.
- 2. Create To-do Lists
- 3. 20 minute a day activities

But, its also critical in that these must be routine, daily, on a semi frequent basis. Like I tell my doctoral mentees, 20 minutes a day and yes, you can complete a dissertation.

Therefore, as the saying goes "just get er done." Don't just get er done, slow down, stop, move to another project, then come back to unfinished busuiness.

Zeigarnik, B. (1938), "On Finished and Unfinished Tasks," pp.300-314 in W. D. Ellis (Ed.), A Sourcebook of Gestalt Psychology, London: Kegan Paul, Trench, Trubner & Co.