The Myth of Multitasking [MicroBusiness]

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The Myth of Multitasking

Fred Schindler
Editor, MicroBusiness Column

We live in a busy world with far too many things competing for our attention. The solution is to multitask – right?

Multitasking is a term that comes from computer technology. It's when a computer handles more than one task at once, instead of taking tasks sequentially. If a computer has only one CPU, multitasking is an illusion. A new task is allowed to start before the previous one has been completed, but instantaneously the CPU can still only do one thing at a time. How does it work in people?

It's been shown that people are also limited to handling one thing at a time. Multitasking really just means jumping from one task to another. The problem is we work much less efficiently that way [1]. Yes, we can breathe and walk at the same time, but for tasks requiring mental processing, we're limited to one task at a time. Worse yet, the inefficiency of jumping from one tasks to another means we can't even create the illusion of multitasking.

We see a clear example of this on the roads. The problem with texting and driving is well known, but it could be argued that the problem is that people are looking away from the road. What about driving and talking at the same time? My experience is that people that are talking and driving at the same time have more difficulty staying in their lane and maintaining their speed. It's annoying and sometimes even dangerous to share the road with them. I say this from the perspective of a driver and a bike rider. It's not just my perception; this is a well-documented problem [2].

These days most people bring their laptops to meetings. People don't want to waste too much time in a meeting, so they multitask and handle their emails or look things up on the web while trying to participate in the meeting. But what happens if someone asks them a question? Invariable there is a pause as the person attempts to reconstruct the question and more often on not, asks for the question to be repeated. I've done it.

I attend many IEEE and MTT meetings. We all sit in a room with our computers and smartphones out. Most people's eyes are on their personal screens, not the big one in the front of the room. There are plenty of legitimate reasons for doing this. We can download the meeting materials and follow along on our own device, take notes, references related material and data etc. We can be more efficient this way. But when I wander around the room I also see people shopping, booking trips, looking at vacation photos etc. I experienced a case where someone was upset to learn about something that was described at a meeting where he was presiding. It was in the meeting minutes. To be fair, he may have been distracted by other meeting related tasks, but all the same, it shows that multitasking doesn't work.

What about you young people? The current generation has grown-up online and texting. They're used to looking at several screens at once. They were raised to multitask – right? Sorry. Research shows that younger generations certainly do quite a bit more multitasking than my generation, but they aren't

really any better at it [3]. It seems our brains aren't set up for multitasking. Maybe we'll evolve a multicore brain, but it hasn't happened yet.

I'm not suggesting we should only handle tasks sequentially. I'm quite comfortable juggling several things at once, even if I only actually work on one thing at a time. I find quite a benefit from starting something, moving to a completely different task, and returning to the original tasks later. It helps to let a task simmer in the background for a while. The mind seems to continue to work on it. Many of my best ideas came after taking some time away from a problem.

When I bring my laptop to a meeting and reply to an email or check on some other task, I know that I'm not paying attention to the meeting. My conclusion is that if we want to reduce the amount of time we waste in meetings, we should close our laptops, put away our tablets and smartphones, and pay attention to the meeting. We'll all get done faster.

[1] Pashler, H., "Dual-task interference in simple tasks: Data and theory," *Psychological Bulletin*, volume 116 #2, Sept. 1994, pp220–244.

[2] Strayer, D.L., Watson, J.M., & Drews, F.A., "Cognitive Distraction While Multitasking in the Automobile," *The Psychology of Learning and Motivation*, Vol. 54, Burlington: Academic Press, 2011, pp. 29-58.

[3] Carrier, L.M., Cheever, N. A., Rosen, L. D., Benitez, S. & Chang, J., "Multitasking across generations: Multitasking choices and difficulty ratings in three generations of Americans", *Computers in Human Behavior*, volume 25 #2, March 2009, p483–489

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Skills

- C/C++ , PHP, JavaScript
- Data Structure Algorithm
- MERN Stack
- Headless CMS - Strapi , Sanity
- React-Bootstrap, Bootstrap
- Tailwind CSS
- MySQL, MongoDB
- OOPS
- Nextjs
- Redux, Redux Toolkit, Context , REST, GraphQL,
- Django, Djano REST
- Version Control - Git/ GitHub

Language

Urdu

English

About Me

Iam 3rd year student of Electrical Engineering at IoBM, I have learned all these skills with in 1.5 year. Due to the lack of guidance I have learn different domain of web development initially such as php, Django and MERN Stack.. After learning basic concept of MERN Stack, I feel more easiness as compare to others, therefore currently i am working on MERN Stack , as a self learner and handling different types of bugs I have increased my learning speed as for now doesn't matter for me to learn new one.

Experience

I have no experience yet but i have ~2 years of academic experience where i have not only learn technologies but also developed hands- on project.

Education

2020- IoBM
BE -Electrical Eng

Due to lack of practical knowledge and costly project as well as difficulty level of self learning as compared to software , i have decided to switch my field of study.

Projects

- Ecommerce
- Blog
- Note Taking App
- Portfolio website
- Library Management System
- Learning Management System
- Text Analyzer