Dedicated workspaces: Faster resumption times and reduced cognitive load in sequential multitasking - DTU Orbit (12/12/2018)

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Studies show that virtual desktops have become a widespread approach to window management within desktop environments. However, despite their success, there is no experimental evidence of their effect on multitasking. In this paper, we present an experimental study incorporating 16 participants in which a traditional Windows 7 environment is compared to one augmented by virtual desktops. Within the experimental condition, each virtual desktop acts as a dedicated workspace devoted to an independent goal-oriented task, as opposed to the control condition where only one single workspace is available to perform the same tasks. Results show that adopting virtual desktops as dedicated workspaces allows for faster task resumption (10 s faster on average) and reduced cognitive load during sequential multitasking. Within our experiment the majority of users already benefited from using dedicated workspaces after three switches to a previously suspended task, as the time lost on setting up workspaces was compensated for by faster subsequent task resumption. These results provide a strong argument for supporting goal-oriented dedicated workspaces within desktop environments.