

Question 1: *Should operating systems be integrated with Internet Browsers and Internet E-Mailers?* Not only argue both sides of the point, but also give justification.

The biggest advantage of having Internet Browser and E-Mailer integrated into operating systems would be to facilitate systems integration. Having the same developing team design the OS and the Internet Browser and E-Mailer would enable these entities to establish direct process communications with maximum freedom instead of building an OS designed to communicate with generic Internet Browser and E-Mailer software and vice versa. There could also be a security advantage; since the OS manages system security and uses hardware mechanisms, having the Internet Browser and E-Mailer (both design to communicate with the internet; which is the primary source of malware) as part of the OS would enable these programs to directly benefit from those security features. Running the Browser and E-Mailer applications would probably also be faster because of more efficient coding and systems integration. It would also be advantageous for non computer knowledgeable users. Some people after purchasing a computer with a new HDD and installing an OS might not know that they need more programs to access the internet. More so, users would encounter a "boot strap" issue: if the browsers installation files are mostly available online, how can you access these files to install the Browser if you don't have a Browser already installed with your OS? In the same mind frame, IT technicians who are responsible to set up a large quantity of computers (example, McGill buys new computers for the 4th floor) would save time if all the internet applications are services offered by the OS instead of being separate programs that each need their installation (1 installation instead of 3).

The major issue of having Internet Browser and E-Mailer implemented into the OS (and also the source of most legal proceedings regarding the subject), is the creation of a monopoly. If every OS comes with a Browser (which is presently the case) new companies waning to enter the Internet Browser and E-Mailer market because they have great improvement and new applications ideas can't do so because Internet Browser and E-Mailer are already installed on all machines as soon as they have an OS. A lot of users won't look any further than their desktops for these kinds of applications as the service is already provided by the OS (some users might not even know that other alternatives exist. This phenomenon can be observed when looking at browser usage statistics. According to Wikipedia, IE has 74% of usage share, down from 90% in 2005. This is more than likely due to the fact that it is installed automatically with Windows - the most widely spread OS - rather than because IE is superior than other Browsers). Another issue with having Internet Browser and E-Mailer embedded in the OS would be to add complexity and un-removable system cluster. By adding complexity, it's inevitable that more bugs and conflicts would occur (and Windows has enough already as it is!). Furthermore, there are a lot of computers that are not designed for online applications (i.e. CIA, military research, patented corporate research, banking information, government files on citizen data, etc...) By having Internet Browser and E-Mailer integrated into the OS, these computers would be stuck with those features, which might slow down computing and potentially jeopardize security (a not so clever staff member might click on the browser and realize that the internet is not connected, physically connect a wire to the machine and go open an email containing spyware). On the same note, a lot of people like to use online mail services such as Hotmail, Gmail, Yahoo Mail, etc... because of the remote access opportunity and the fact that they do not require a E-Mailer program. For those users, a built in E-Mailer would be absolutely useless and – depending on how it is designed – might even be an un-removable nuisance (for example, a pop up bubble prompting an error because the mail service is not set up every time the OS loads up)