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Technical Evaluation Report

57. Portable Applications in Mobile Education

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Abstract

Portable software applications can be carried on a convenient storage medium such as a USB drive, and offer numerous benefits to mobile teachers and learner. The article illustrates the growing field of 'portable apps' in reviews of seven contrasting products. These represent the major categories of document editing, email maintenance, Internet browsing, instant messaging, file transfer, multimedia presentation, and anti-virus protection. Emphasis is placed on ways to use 'portable apps' to overcome the common problems of Internet usage during travel.

Introduction

Mobile teaching and learning have become easier with the development of portable applications. 'Portable apps' allow the user to move between different computers without having to install the most regularly used programs on each of them. Email, browser favourites, file transfer, and other functions can be accessed without the need to configure the new computer for them. When users are travelling, and are dependent on unfamiliar computers and Internet connections, such reconfiguration can involve an expensive use of time, if it is permitted at all. Portable apps, on the other hand, travel with the user. Stored on a convenient medium such as a USB drive, they are instantly accessible when the drive is plugged into a computer's USB socket. One can also store them on a CD, though usually without the advantage of being able to change their settings and to store new files on the drive as the software is used.

Several comprehensive listings of portable apps have recently become available, covering major functions including document editing, instant messaging, Internet, networking, and security utilities, and multimedia presentation. Wikipedia and Portableapps.com currently list several hundred portable apps in over 50 categories. These resources have been frequently valuable to the writer in the course of a tour of a dozen Asian countries, during which he has needed to maintain communication with colleagues, students, and family members from a series of hotel rooms, airports, and Internet cafes. A selection of portable apps on a USB 'pen drive' allows him to do this without even plugging in his laptop. The experience feels rather like being a cuckoo in other bird's nests, plugging one's portable drive into their USB ports, and moving on without leaving any trace on their systems. The following trials cover seven types of portable software, and indicate the products' merits and disadvantages as mobile education tools. Collectively, these seven products occupied just over 100 megabytes on the evaluator's 250-mb memory stick,

leaving plenty of space for document and email storage. Each of the products tested can be downloaded from www.portableapps.com.

Product Trials

1. Abiword: Numerous document editors are available as portable freeware, notably including the Writer program contained in the portable open-source package, OpenOffice. To use any one of OpenOffice's tools, however, one must load the whole package, which at 177 megabytes can occupy more space on a USB drive than is available. At just 15 mb in size, Abiword is a more economical alternative, with a comprehensive set of document-editing routines, and a look-and-feel almost indistinguishable from MS-Word. The software loads and saves files in the .doc, .dot, .rtf, .txt, .htm and .html formats, as well as in its own .abw and .awt formats. Users can expect to lose the page-formatting of .doc files when moving between MS-Word and Abiword; and a file created in Abiword will not load in Word unless one remembers to save it in the .doc format before storing it or sending it to others. Abiword's portability, however, makes it a useful alternative to Word, allowing the user to prepare and modify reports on multiple computers, independent of the software installed on them.

2. Thunderbird: The portable version of this popular Mozilla email software is one of the most useful of the applications tested, owing to the rapid access provided by its pre-configurations to one's regular mail servers. In using a laptop at public-access Internet connections, it is commonly easier to receive email than to send it. Re-configuring the email software on a public-access computer may be difficult or not allowed; and forgetting to erase the configuration allows future users to access one's email. (There is, of course, an equally serious need to protect the portable drive from being lost, or the same could happen . . .) A solution to the problem of re-configuration is to access one's email through an Internet browser, if the account has a webmail interface. This is usually a cumbersome and time-consuming procedure, however. With incoming and outgoing email server configurations constantly available on a portable drive, speed and flexibility are greatly increased. Thunderbird sends and receives email from multiple POP and IMAP accounts as soon as the portable drive is plugged into the USB port. The email can be saved on the portable drive, but when the space on it is limited the stored email must be regularly deleted. If one is inclined to save large amounts of email, it is useful to use a portable application for rapid email checks, while leaving it on the server for later downloading onto one's regular computer. Otherwise, one can configure the portable software to delete each item from the server as it is downloaded to the USB drive, as a useful means of preventing the external server from becoming overloaded by spam during lengthy travel periods.

3. Mozilla Firefox: The advantages of portable Web browsers are debatable. They provide the obvious advantage of having one's regular browser bookmarks permanently available; but it is not as though Internet Explorer were not installed on most public-access computers already, offering greater familiarity and flexibility. The mobile user can conveniently store bookmark favourites on an external server for access on different computers, and may have little need to load a portable browser such as Firefox from a portable drive. As an open-source software, on the other hand, Firefox is rapidly becoming a viable alternative to Internet Explorer, thanks to its active development community; and it may soon gain an advantage.

4. Gaim: Even those who do not regularly use instant messaging tools can find them valuable while travelling. The Internet kiosks and airport lounges of five continents seem to offer MSN

and Yahoo Messenger as a matter of course, and access to one's contacts list is as simple as entering the account password. The current versions of these two leading tools have added an integrated address list facility preventing the user from having to install both products in order to communicate with those contacts who only use one of them. The portable Gaim software provides the same advantage, by logging simultaneously onto these and other popular messaging tools such as AIM, ICQ, and Jabber. A major drawback of Gaim is that, when it is used as the interface for these services, the full range of their audio and video features is not available. Currently, Gaim requires a smaller download than its major competitor, Trillian (reviewed previously in this series), and it has fewer configuration options than its rival portable messaging product, Miranda. Gaim's interface and set-up are more user-friendly, however, and it is to be hoped that its developers will not fall into the trap of competing with other products by increasing its range of features, thereby reducing its simplicity of use.

5. FileZilla: For a mobile teacher or learner, portable file transfer protocol (ftp) facilities provide a more flexible and cost-effective means of exchanging reports, assignments, etc., than the more conventional email attachment method. A teacher who provides students with an online 'drop-box' can download their files directly from the server simply by inserting a portable USB drive containing ftp software such as FileZilla. Public-access computers cannot be depended upon to provide familiar ftp software, and the file transfer options provided by Web browsers are generally limited. Like most ftp products, FileZilla can be configured to log-in to multiple servers, and it can up and download files while the user is doing other tasks. On slow systems, it tends to drop the connection regularly, and to have problems handling simultaneous file transfers. When one needs to send the same file to multiple recipients, however, uploading it to a Web server using FileZilla and sending the download address to them by email, is fast and efficient.

6. VLC Media Player: For many teachers, a common reason for travel is to make a conference presentation. If one needs to present audio/ video material, one cannot assume that the computer at the conference venue will contain the appropriate media player. When using a portable player, however, one knows in advance that the material will be playable. The VLC Player supports the common .wmv and mpeg formats, as well as VCD, and DVD material, and the files can be played directly from the USB drive without the need to copy them to the conference computer. Having dealt with the problem of the media player in advance, a lecturer can use the limited time available before the presentation to concentrate on solving other problems of the typical conference environment: e.g., the need to reconfigure the computer to project video materials on the data projector, and to adjust the audio speakers.

7. ClamWin is a relative rarity in the software world, an anti-virus product that is portable, open-source and free. As such, it offers great promise for protecting the contents of one's portable drive from virus and spyware. At present, however, this particular product has a major disadvantage -- its inability to detect incoming viruses in real time. The files on one's system need to be deliberately scanned for infection to be detected, and even if the user does this regularly, an incoming virus may already have done its damage in the meantime. To rely on ClamWin as a reliable option for virus detection, therefore, would be dangerous; and of the seven products tested in this series, this is the only product that the reviewer has since uninstalled. Of the other five anti-virus products listed on the Wikipedia site to date, only one (Microworld AntiVirus) actually provides more extensive protection, and that in a relatively expensive 'corporate' edition. The field of portable, open-source anti-virus freeware clearly requires much development.

Conclusions

The portable applications field in general is evolving rapidly. With 2-gigabyte portable drives now becoming inexpensive, whole operating systems (e.g., Linux and Mac) can be installed on one's USB drive, making it easier to compare these options with the Windows alternative. As USB drives become standard not only in computers, cell-phones and PDAs, but also in the lighter sockets and arm-rests of aeroplanes and cars, the demand for portable software will increase. For mobile teachers and students, the flexibility and efficiency of communication and data transfer will expand greatly.

N.B. Owing to the speed with which Web addresses become outdated, online references are not cited in this report. They are available, together with updates to the current report, at the Athabasca University software evaluation site: http://cde.athabascau.ca/softeval/. Italicized product names in this report can be assumed to be registered industrial or trademarks.

Patrick J. Fahy, Interim Series Editor (Jon Baggaley is on sabbatical.)

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