

The Application of New Information Technology to Educational Administration and Teaching

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1.0 Intro

Recent improvements in the level of reliability in Palm OS PDA's and the emergence of clever software have made these devices potentially much more useful for improving both classroom administration as well as helping students keep track of their homework assignments. Moreover, fully-functional PC versions of both administrator and student PDA software can export and import data seamlessly from their PDA counterparts, thus making data entry on the tiny PDA screen infinitely less of a hassle. Finally, the emergence of good, free-of-charge multi-lingual web hosts can provide a solid basis for improved communication between the teacher and student.

This paper will explain the author's earlier painful experience with PDA's and describe how the recent improvements in hardware and OS reliability have made them so much more practical for everyday use. An outline of the uses of these programs will be presented in two different educational contexts. These are educational administration for the classroom teacher and record keeping for the student. Then, an excellent free web host that provides multi-lingual bulletin board service will be discussed. Finally, some comments about how the use of all of this new IT may provide an integrated strategy to improving the level of communication between students and teachers will be hinted at.

2.0

Personal Digital Assistants have become increasingly popular and useful for everything from the obvious uses for which they were initially designed to the practical extension of software previously used primarily on desktop and laptop computers. This can be very practical when applied to increase productivity in a variety of field settings including education.

For the last 3 years, the author has been experimenting with various Palm based-PDA's and several educational administration programs. During most of this time, several factors have limited the appeal of the Palm OS PDA's. From the software side, the instability of the OS and the lack of functionality of some of the early versions of application software made it impossible to rely on them, despite the potential they possessed for improving productivity and making work easier. On the hardware side, touch sensitive screens that were the only means of data entry soon broke, leaving the PDA virtually useless. Data transfer glitches provided endless headaches as you would usually try to figure out why parts of your databases were not updated properly.

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In spite of all of these drawbacks, the author saw great potential in Palm-based PDA's because of their mobility and potential for interfacing with PC's, other PDA's and the internet. In spite of all the early bugs and glitches, it was clear that the potential was too much to ignore.

The introduction of the 4.xx version of Palm OS software as well as a new line of Palm-based Sony Clie PDA's seems to directly address these reliability problems. Several months of heavy use of my Sony Clie has yet to cause me the kind of problems I had earlier experienced with my other handhelds. There have been no further catastrophic losses of data, freezing up of the OS, or problems with the touch screen since I began using my Sony Clie. This is a relief, and can only be attributed to better pre-release OS debugging by Palm, and the superb quality control and attention-to-detail that has always been shown by Sony. One great new feature is the introduction of a Jog Dial feature that greatly reduces the need to use the fragile touch screen on your PDA.

The markedly better hardware is not the only reason that the new Sony Clie series is better: the free bundled software is also very generous. Particularly useful is "Documents to Go," a software program that allows Microsoft Word and Excel program to be transferred to any Palm-based PDA. In effect, this means that PDA users no longer have to worry about using floppy disks or bulky MO drives in order to transfer most files from PC to PC. Since the advent of "Documents to Go," any of the new Sony Clies' can perform the same function.

3.0

Teacher's Pet

Around 3 years ago, several different companies released classroom administration software for the Palm OS. Most of them were produced not by famous software companies, but by one-man operations that did not have the resources to produce a bug-free, function-rich product. The lure of reliable, mobile, and functional classroom administrative software was so strong that the author tried several of these programs, only to be disappointed by their propensity to crash or lack of technical support service.

Teacher's Pet software, developed by Coffee Pot Software (<http://www.coffeepotsoftware.com>) is without a doubt the most reliable and full-featured Palm OS program for classroom administration on the market today. It is so easy to use that reference to the Users Manual is almost unnecessary. At a glance, teachers can easily understand how to define the parameters for automatic grade calculation, assignment weight, etc. Teachers Pet allows teachers to enter all of their attendance data for each class that they teach, and this allows both Tardy and Absent entries. It also keeps track of both for easy reference which is a useful feature when compiling attendance grades. Another great feature is that later versions of this software can also automatically add any assignments due date to your PDA's date book. This makes it impossible to forget what assignments you have given the students.

One important feature of version 3.1 of Teacher's Pet for the Palm OS is that it is now possible to beam

assignments and other data from the teacher's PDA running Teacher's Pet to a student's PDA running Due Yesterday. This ability to use the infrared port in order to exchange info between PDA's running different software is a new, exciting, and potentially very useful feature.

Teacher's Pet desktop software for Windows PC's has the similar features to the Palm OS version. It was developed by Media X, a developer of educational software for Windows based PC's. The main purpose is to have another, easily accessible backup to the data in the Palm version. However, it is easy to use and much more convenient than any alternative when attempting to print a hard copy of anything from class attendance data to individual student grades.

4.0

Due Yesterday

Due Yesterday is a Palm based program for students that assists in record keeping and grade tracking. Probably the most important feature that this program possesses is the one that allows students to create, change, modify and delete information on their PC. After information has been entered on the desktop version of the program it is easily transferred to the student's PDA. This saves time, as well as reduces wear and tear on the fragile PDA touch screens.

The main functions of Due Yesterday are as follows. Tools are provided that allow you to enter information about courses, including meeting times, contact information for professors and assignments. They offer views of due dates that can be customized by the week, by individual course, or with all classes included. Assignments and test dates can be exported to the Palm's date book and to-do list with either program, allowing students to coordinate schoolwork with the rest of their lives.

Due Yesterday also has a feature called "due next," which alerts students to their next assignment and provides a running count of the number of assignments they have turned in late in that class. It also calculates grade-point average based on grading policies for the class or the school in general. In the future, it will hopefully be possible to back up and store classroom data from Due Yesterday on the net. In the future, if PDA use among students becomes popular, the author hopes that students will be able to copy classroom information obtained on the instructor's web site and paste it directly into the proper fields of the Due Yesterday desktop software. This information can then be directly transferred to Due Yesterday on the student's PDA.

Finally, students using Due Yesterday can beam assignment or other data to other PDA's running the same software. This is in addition to this program's previously mentioned ability to receive beamed info from the teacher's PDA running Teacher's Pet.

The best thing about Due Yesterday remains its price. It is absolutely free!

1.5

Free Multi-lingual Bulletin Board Web Hosting

Up until recently it has been impractical to create bulletin board type home pages for use as communicative or administrative tools for the teaching of foreign languages to Japanese students. The author tried to experiment with this over the years, but the biggest problem continued to be the lack of multi-language functionality on these free sites. This problem has recently been solved, making it practical to create multi-lingual BB sites for all foreign language courses. The author uses <http://www.network54.com/>

to host his BB sites for the Fall Semester of 2002.

Most of the time, posts from the teacher covering classroom activities, assignments and due dates are entered for the benefit of students that may have missed class due to job interviews or other outside activities. However, it provides a safe forum in which exceedingly shy Japanese students can ask questions anonymously and get direct feedback from the instructor. This has already proved to be very useful and interesting.

The one drawback with hosting information on a free or low cost site is that access to the site can be a problem due to service outages and the not infrequent bankruptcy of low-cost or free providers.

1.6

Conclusions

Recent advances and improvements in the reliability Palm OS software and hardware may have made it practical to consider these devices and their accompanying software as educational tools for both administration and teaching/learning. Palm devices could be even more useful when connected to school-wide hubs that take advantage of the infrared wireless capabilities of the devices.

The exciting possibilities inherent with the wireless PDA are already being examined by Stanford University, which has created new web-based wireless portal for PDA enabled faculty and students there. It is called the "myStanford" portal, and is available to all registered students, faculty and alumni through any of the wireless hubs throughout campus. This innovative network allows access to a great variety of Stanford information systems and services through their own PDA.

The author feels that TNC might consider the establishment of a similar network, provided that it would be

cost effective to do so. Also, it would be very nice if we could use the school's servers to host multi-lingual bulletin board services to improve student to teacher communication and the quality of education at our college.

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