TabletPC – Useful computer or yet another PDA

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Abstract
The present article discusses TabletPC as a tool for work and study. In the article a reader can find a few details about hardware and software and a few aspects of using TabletPC in the educational process.

Key words
Desktop, notebook tabletPC, palmtop, USB, Firewire, Microsoft, Acer, Windows Journal, CorelGraphigo, TravelMate, Comdex

Introduction
Computers are no novelty in our schools since they are used in other subjects apart from ICT. However, there still remains a problem of computers being placed in one specialised classroom only. Transporting computers on trolleys or using a laptop or a notebook can solve this problem. We also need a some display to make our lecture more interesting by using textual, pictorial or multimedia materials. The solution is to connect our laptop to a multimedia projector or a TV set. Our students mostly use their own paper notes to study from. Personally I have found a palmtop much more appropriate for such activities: it enables me to make notes, timetables; it provides e-mail and some various programmes (e.g. a dictionary, a small database, an inbuilt camera, etc.). However, I need a cross between a palmtop and a desktop or a notebook, something that would be the size and the weight of a palmtop, something that would offer the possibility of writing with a pen and it would have to have the capacity of a standard computer. Such palmtop would completely substitute traditional notebooks and other paper materials. The answer to all these demands is a TabletPC, developed in 1989 and presented for the first time in 1991. The development itself had had its ups and downs, but in November 2000 Bill Gates presented the first prototype of a TabletPC at COMDEX. Next year Acer presented (also at COMDEX) TabletPC TravelMate 100 powered by WindowsXP TabletPC Edition. Today there are many producers of TabletPCs and there is a wide variety to choose from.

Picture 1 Mira

What is TabletPC?

TabletPC is a palmtop according to its size and weight, however it also offers possibilities of a desktop. We can write with a special electronic pen practically anywhere on the screen and the software enables us to save these notes in their original form or in the form of a text which can be used in Word, Excel, PowerPoint etc. TabletPC actually combines paper and pen in a PC. Any software designed for WindowsXP can also be used on TabletPC and WindowsXP for TabletPC enables us to use a pen. Since mobility is the basic characteristic of all TabletPCs, each one has a interface

Picture 2 TravelMate C100

for wireless communication. Naturally, all have an inbuilt discs which may be of different sizes, some have inbuilt keyboards, others do not. Other units like a CD or a disc may also be added. They all have many interfaces (VGA, modem, USB, FireWire, some even BlueTooth) and some have PCMCIA, SmartCard, MemoryStick, CompactFlash added.

Picture 3 Connectors

TabletPC is not some kind of a smart palmtop. It is a computer similar to our desktops. It is even more functional, because it is pen-enabled. There are two types of TabletPCs: in the first type the screen can rotate for 180^0 and cover the keyboard, and the second type has a keyboard as an outside unit. The pen (stylus) is electronic and it is therefore different from other palmtop pens. It functions like a mouse and a tap with the pen means the same as a left click with the mouse. A double tap means the same as the double click with the mouse. The pen also offers a function simulating the right click (the same can be achieved if we keep the pen on the screen for more than two seconds). The pen can actually be used in the same way as the mouse.

Picture 4 Stylus

If we want to use the TabletPc as a notebook, we do not have to learn anything new. All TabletPCs also have a function, which recognises speech, and it can be combined with recognising the handwriting. We can, for example, write a few lines and add a few words to recognise the speech. Or we can recognise some speech and then edit it with the regular editor. There are some difficulties with the Slovenian language, but given the time they will probably be solved. The choice of use is wide, however TabletPC is constantly compared to a laptop. Let me enumerate just a few points to think about:

- Using a laptop while walking in the classroom, at school or in a factory is inappropriate, if not very difficult.
- Using a laptop on a bus or a plane is also very unpractical, because of the size and space.
- Using a laptop keyboard during a meeting can be very distracting or even unacceptable.
- Talking to somebody while using a laptop can also be very distracting, if not impolite.
- An open screen of a laptop represents a physical boundary between people who talk.
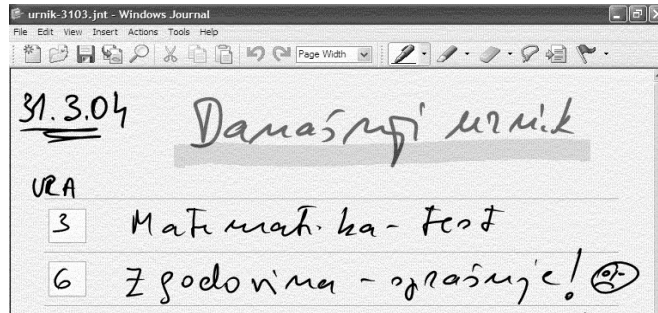
The solution is TabletPC. It can be carried around, it looks like a notebook, and it represents no boundaries and is therefore not distracting. We write on its screen as if on a piece of paper and we have a constant connection with the outside world or with the data stored on the local server.

The software

There is a lot of WindowsXP software available for using the TabletPC. Only a few are presented here.

Nowadays the connection between the computer and the paper is very important. Therefore the Microsoft has developed a few programmes, which have already been inbuilt in the WindowsXP TabletPC Edition. One of these is Microsoft Windows Journal, which enables us to make notes or pictures. It is essentially a programme, which offers a blank piece of paper to

Picture 5 Windows Journal

write on and later to save« our text in its original form. It is important to mention here the fact that the software recognises the pressure of the pen and we can get bolder lines, just like in writing on a piece of paper. The programme also enables us to find notes stored in their original form. We can later transform these notes in the text and use them in Word, Excel, PhotoEditor, etc. The original note can also be sent through e-mail and seen with the Windows Journal Viewer programme, which is the basic part of the WindowsXP Professional.

Another programme is Sticky Notes, which actually functions like the usual sticky notes that we use in our everyday life. We can also add a sound record to these notes or even send them through e-mail.
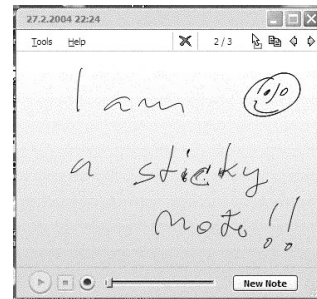
OfficeXP is also very useful, because it enables us to use pens in the above-mentioned programmes. We can add original notes to the texts written in Word or Excel. We can lead a PowerPoint presentation and simultaneously add various original notes and pictures by using the Snipping tool programme.

PowerToys for WindowsXP TabletPC Edition offers us a variety of useful programmes and one of them is also the Dictionary Tool for TabletPC. It enables us to adapt the programme to recognise original notes.

There are many other software programmes which have not been designed at Microsoft: CorelGrafigo or GraphicCalc, for example.

It is also possible to install Linux on TabletPC (Acer TravelmateC 100) and »xscribble« recognises the original notes as well.

TabletPC at school

In 2001 I presented a project to 3Com Company. The project dealt with the use of the palmtops in the so called »mobile classroom«. It was approved and awarded as a runner –up. Later I prepared a similar project with dr. Snežana Kocijančič from the Secondary School of Nursing in Ljubljana. The aim was to introduce the use of the palmtop to the students during their practical work at the clinic. The project was also presented at MIRK. Mobility and the use of the »central« computer were of the utmost importance in both projects. The students were supposed »to copy« the necessary information to complete their tasks. They would then send their results to the teacher. The idea had one minor drawback (apart from the financial aspect): the size, i.e. the capacity of the palmtops was in those days smaller. The experiment itself became quite interesting in education, esp. in the field of the computer technology. TabletPC is a tool, which will replace the traditional notebooks and add to them a new value via integrated databases.

Students follow the lectures in many different ways and it is essential that the teacher conforms to their needs and makes the lectures interesting. And this is where such tool becomes useful.

TabletPC offers a new way of communication, for example:

- Students can ask questions via TabletPC during the lecture and thus stay anonymous;
- They have an opportunity to gather new information through the Internet and the intranet;
- They can instantly find explanations for terms they do not understand;
- There is no more taking notes on the papers and copying them later, because they can write everything on the computer. They can also record the teacher's lectures;
- They can exchange their information with others; add some more information from others or from the Internet.

There are many more examples of the usefulness of such tools in the classrooms and I hope we will be able to make good use of them.

Conclusion

Everything that has been said is very good, but it is still very expensive. Hopefully, the teachers will be able to get the proper equipment and start changing the way they teach. That would make the lectures more interesting and schools more appealing. One of the possibilities is to cooperate with big companies that are willing to help as it is done in the western world.

Literature

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Author

Ivan Kolenko teaches ICT at High school of business and commerce in Celje. He has been active in computer education programme RO since 1996 as a seminar leader for his colleagues. At school he leads and participates in different projects in the field of introducing information and communication technology in Science teaching.

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