Group Investigation Report

1. The creation of the group

My group was officially formed the same Saturday we were told by the lecturer that the groups needed to be created and setup. And I said officially because our group is a cell of a major group of about 8 to 10 people who, since the beginning of this adventure at the University, gather together during the breaks in between sessions to have coffee or lunch, taking the opportunity to know each other and share points of view about the course that we are doing at TVU. This mother-group of 8 to 10 people was spontaneously divided in minor groups of 3 or 4 people, fulfilling the requirement of the Work Group of having maximum members of 4 and minimum of 3. The members of each minor group were formed naturally, almost by random as we sat on the chairs having coffee; no members had any kind of preferences for any other members and I am sure none of us would have mind to be part of this or that group. There was no friction at all, and this is really important because it shows a strong line of friendship underlining the group, which in turn guarantee the support to each other in the tough hours ahead and the commitment to the task that we have to do together.

The members of my group are Khalid Abdulghani and Serge Brats. It is a particularly rich group given the different cultures we came from: Khalid's backgrounds are from Iran, Serge is originally from Russia and I was born in Spain. We exchange mobile numbers details of each other and e-mail addresses straight away.

2. The investigation begins

Our first meeting took place upstairs on the labs. I believe everybody had the impression that the investigation task would be a free choice of the group, and we spent some time discussing the subject to embrace on our presentation. Just when we were about to decide on the subject, we were told that the investigation have to be based on the finding of two alternatives solutions to Microsoft Excel. After a few minutes talking about this we started doing some practical work. It happens to be that I was sat in the middle of Khalid and Serge, and while they were doing some research on the Internet, and I was typing the ideas that they were telling me, the different programs to look up, their reviews, their prices, their features and so. They were investigating and I was only typing, and the final result was a couple of pages of a draft document full of ideas and notes.

After the coffee break we started creating the slide shows. Khalid was focusing on putting on the show some of the most relevant ideas that we have compiled on the draft, while Serge was supervised the layout of the slides as well as searching for logos, pictures and screenshots on the Internet related to the alternatives choices to Excel that we have chosen. I was given the task of creating and put together on an electronic copy of Power Point presentation the work that we were doing. This distribution of roles were produced genuinely and demonstrated on then field the strong commitment that we have with the purpose of the investigation.

We exchange some e-mails with comments and suggestions about the power point presentation the following days, and had an intensive session on the Saturday that was dedicated to tutorials.

3. The final touches

After the Christmas holidays we decided to meet on a Sunday morning to add the final details to the presentation and decide who was going to present what in front of the audience. We met in the library at TVU, logon to the computers and call up on the computer screen the presentation that we have done last year. To my point of view the presentation was 90% completed, but it has been design as a single block and there were no clear lines about presenting it in three different parts. Therefore we had to redo the presentation again reusing the material we already had, creating this time three different sections so that each one of us will have one dedicated slide to present in front of the audience.

The final version of the file that we finally produce had a more mature and realistic content that the previous version. One of the good things we achieved this Sunday was to come out with a strong conclusion about the investigation: though we have studied the two alternatives programs to Excel deeply, our recommendation was to use Excel as your default choice for a spread sheet application. Everywhere we look (home, work, University, general practice, etc) Excel was always present, and though it is not cheap, we strongly concluded that it is worth the money, specially when considering that it is bound together as a package with other popular applications like Word, Power Point, Access and Publisher.

The presentation was finished, with three different slices that showed the first one the features of Microsoft Excel, and the other two dedicated to each of the alternatives programs we had chosen. Our final agreement was to decide, again naturally and without any sort of pushing or nuisance, the order of the presenters: Khalid will break up the ice explaining about Excel, then Serge will continue with one of our alternative choices and I will close the presentation talking briefly about the second alternative and dictating our conclusion.

This concluded our off-the-stage work as a group, enjoyable experience given the fact that the group was formed by friends with versatile skills, easy going characters and a proactive approach to problem solving.

How to use Windows Live ID

Create or register an account

Open your preferred default Internet browser (Microsoft Explorer, Mozilla Firefox, Google Chrome, etc) and on the address field type the following URL (Uniform Resource Location): **http://passport.net** [1]. Then press Enter.

You should be re-directed to the following page:

Under the "*Sign up today*" heading, you have two relevant options:

1. Either logon to Windows Live ID using an e-mail address that belong to the Microsoft Network (like xyz@hotmail.com or xyz@live.co.uk)
2. Or subscribe to the Windows Live ID by authenticating an e-mail address that is not part of the Microsoft Network (anything like xyz@xyz.com)

For the purpose of this example we have ignore the option 3 suggested by Microsoft ("*Sign up for a limited account*"), and chosen instead to continue the tutorial by

signing to Windows Live ID using an e-mail address that **is not** part of the Microsoft Nework.[2]

The next step is to enter your chosen e-mail address in the required field and type a password. Please ensure that the password you select has the maximum possible strength. In the example capture by the screenshot below is set to "Strong".

There are some extra security options that you need to fill in order to associate your account to Windows Live ID.

The first one of them is to choose a personal question from the drop-down menu "*Question*" field, and type the secret answer that only you will know.

And finally, to prove that you are human and therefore error prone, you need to fill in the exact characters of the display picture in the required field. [3]

Once you have completed all the fields, click on the "*Continue*" button.

Create your password reset option
If you forget your password, you can provide the secret answer to reset it. Learn more about resetting your password

Question: Name of first pet

Secret answer: Purple
Five character minimum; not case sensitive

Type the characters you see in this picture
This ensures that a person, not an automated program, is creating this account. Why is this important?

Picture: 5LXKHBAA

The picture contains 8 characters.

Characters: 5LXKHBA4

Use the audio speaker if you have problems reading the "picture characters"

Continue   Cancel

To accept the term and conditions, Windows Live ID requires you to type your personal mail in the field and click on the "*I Accept*" button.

Review and sign the Agreements

Your Windows Live ID is governed by all of the following, which are collectively the "agreements":

• **Microsoft terms of use**

• **Microsoft online privacy statement**

To view and print the agreements, click each link and print a copy of each agreement. To accept all of the agreements, type your e-mail address and click I Accept.

mypersonalmail@domain.com

Then you are told to check your personal mail and reply to the message that Microsoft has sent you in order to get fully access to Windows Live ID.

Do not ignore this last step and confirm your account as soon as possible.

You've created credentials

You can now sign in using the e-mail address **mypersonalmail@domain.com**. You will soon receive an e-mail message at that address with instructions for confirming your account.
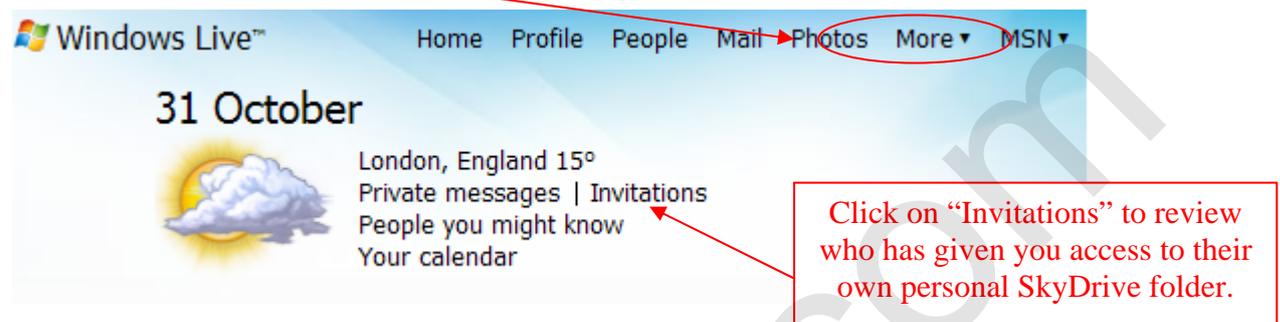
Sign in with your e-mail address wherever you see 🕊 **Windows Live ID**.

To return to the site where you signed up, click Continue.

Continue

Create an online storage

To access Windows Live ID please go to **http://home.live.com** and sign in with the e-mail address you previously register. It is recommended that you add the above URL to your favourites for quick access in the future.

Once you have sign in, Windows Live ID will present your homepage. Click on the "*More*" button along side the menu page and choose "SkyDrive" from the drop-down menu.

Click on "Invitations" to review who has given you access to their own personal SkyDrive folder.

On the SkyDrive homepage, there are some folders created by default. Notice that the padlocks icons on the folders indicate that they are secure and only your account can access it.
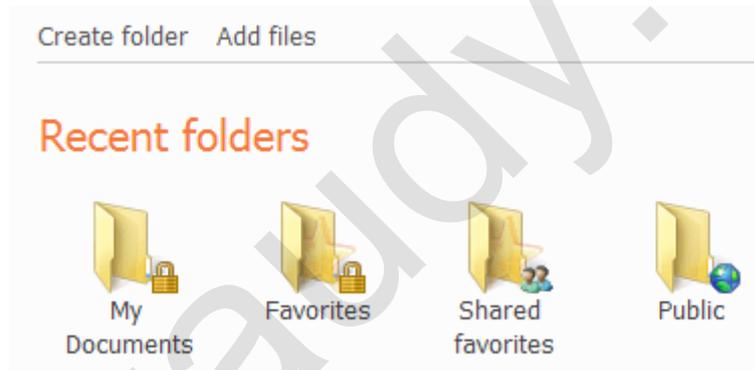
Select the "My Documents" folder and start adding files[4]. You can upload up to 25GB of data.

The main advantage of using this online storage system over the traditional USB pen drive is:

- USB drives are easy to lose, and therefore the data contained is always at risk. SkyDrive maintain your data secure on the web and always accessible.

The main disadvantage of using this system is:

- The process of renewing the data with the same updated files is somewhat time consuming (you have to upload instead of save). The computer where you access SkyDrive must have an Internet connection and also the MSN domain must be allowed through any occasional web filtering in place.

Other useful Windows Live services

Since its release in late 2005, Windows Live ID has continued to grow in usability, converging Microsoft services and products onto one single flexible account.[5]

Of all the services that it has to offer, I strongly recommend to give a try to the following:

Mobile IM (Instant Messenger)

You can register your mobile with Windows Live ID and setup SMS alerts at a cost of 20 pence per message. The alerts will warn you when some of your friends are online on Windows Live Messenger, so you can open your instant messaging client and start a conversation with them. [6]

Family Safety

This is a free web filtering service that allows parents to monitor their children behaviour on the Internet, restricting unsafe sites and providing a sensible browsing experience. Though Family Safety is designed with the parents-children relation in mind, it can be used by anyone as an extra layer of security, potentially blocking hazardous web pages with malicious code in the background. [7]

References

[1] Wikipedia Microsoft Passport http://en.wikipedia.org/wiki/Windows_Live_ID#History [Accessed 17 October 2009]

[2] How to use MSN (Windows Live) Messenger without a Hotmail or Live account http://www.dountsis.com/windows/how-to-use-msn-windows-live-messenger-without-an-hotmail-or-live-account.php [Accessed 17 October 2009]

[3] Wikipedia CAPTCHA. http://en.wikipedia.org/wiki/CAPTCHA#Applications [Accessed 17 October 2009]

[4] SkyDrive Windows Live Help. http://g.live.com/0HE_TRACKSTAR_ENGB9/148110 [Accessed 17 October 2009]

[5] HowStuffWorks "History of Windows Live" http://communication.howstuffworks.com/windows-live-email1.htm [Accessed 17 October 2009]

[6] Mobile Instant Messenger http://www.windowsliveformobile.com/en-gb/home/default.aspx [Accessed 17 October 2009]

[7] Windows Live Family Safety Review and Download. http://download.cnet.com/Windows-Live-Family-Safety/3000-27064_4-10920663.html?tag=mncol#editorsreview [Accessed 17 October 2009]

Learning Styles and Personal Objectives

I have found this exercise really useful and instructive; as it gave me an opportunity to know myself a bit more and find out what can I do to improve my learning abilities.

What's my Learning Style?

The first step in improving the way you learn is to identify your learning style. This can be done with the help of the different learning models that have been scientifically proven and extensible study throughout the years, internationally recognised by Academics Institutions. Once you identify your learning style on a particular model, this gives you a path or line of development towards which you can improve your learning capabilities, by following the researches of the role you are associated with. As the motto goes: "Learning how to learn is life's most important skill"[1]

The Honey & Mumford Model[2]

After methodically read the four different styles present in this learning model, I felt indentify with the Reflector and the Theorist roles, as I consider myself a systematic person with an analytic and scientific approach to issues and problems. I also tend to be very cautious at the time of taking risks and need to think the issue over (again and again), building solid steps towards a practical solution.

I found this model to be very generic and ambiguous in its structure, as it groups all human behaviours in only a handful of different roles of learning. This leaves the model open to confusions when people like me believe they have a mixed of two (or even more) of its four core roles: Activists, Reflectors, Theorists and Pragmatics.

VARK Model

This model classifies learners in for categories: Visual (observe in order to learn), Auditory (take information through listening), Reading (prefer written words to learn) and Kinesthetic (need physical experiences to learn)[3]. I have done a test online to discover my learning style, and created the following graph to represent the result:
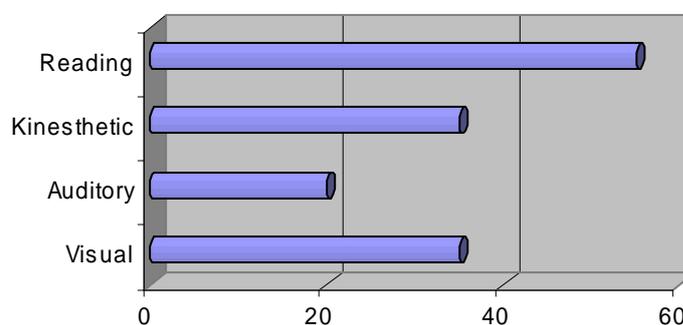
It is clearly visible that I learn the most by Reading, which also implies taking notes and writing. I learn the least by only listening to the subject; I basically need to interact with the material in written words so that my intellect can assimilate it.

Memletics

This style is by far more interesting and advanced to my believed than all the others. It takes into consideration not just your abilities (acquired educationally, genetically or by will power), but also includes the environment-in and out of the learning process. By environment-in I meant the state of the body and brain, while environment-out refer to the physical location where your learning takes place.

This diagram below represents my personal Memletic Learning Style[4]. It clearly shows that I learn the most by being on my own, a condition that I've always been aware of.
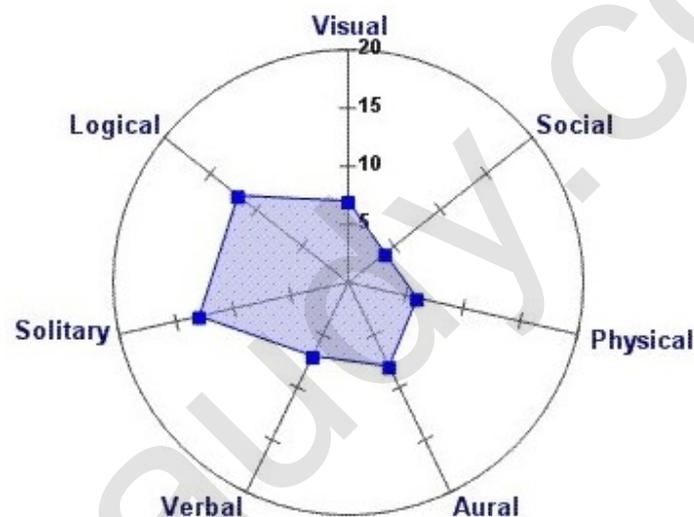
References:

[1] Learning Styles Spectrumx. http://www.spectrumx.co.uk/newlife/learning/frame-learning.htm [Accessed 8 October 2009]
[2] Honey & Mumford's Learning Styles. http://www.brainboxx.co.uk/A2_LEARNSTYLES/pages/learningstyles.htm [Accessed 8 October 2009]
[3] VARK a guide to learning styles. http://www.vark-learn.com/english/page.asp?p=categories [Accessed 8 October 2009]
[4] Free Learning Styles Inventory. http://www.learning-styles-online.com/inventory/ [Accessed 8 October 2009]

SMART Objectives

So far the course has not giving me any significant tips about improving my performance at work or my abilities to solve problems related to IT. However it has

provided me with an insight and fundamental background about the way I assimilate information more easily and my learning preferences.

Setting SMART[1] objectives for this task has given me the chance to test my planning capabilities and commitment toward a given task, learning the theory behind a successful achievement.

Objective 1: TB Hard Drive

Specific: I need to get 1 Terabyte[2] hard drive to my computer in order to expand the capacity of my nearly full up system. This is important and needs to be done as soon as possible if I want to keep the existing files already in my computer and I don't want to delete anything.

Measurable: My present 250 GB hard drive to store data has taken two to three years to be filled. I've calculated that 1 TB hard drive will be more than enough to fill the space needs of my computer for the next five to six years.

Achievable: It is only me the one who has to agree for the completion of this goal. I analysed the components of my system and have identified an empty slot for an internal hard drive, therefore the upgrade to my computer is attainable.

Realistic: On the Internet the new hard drive will cost approximately £100, and I'm afraid I can't spend that amount just yet. If I sell an old 50 GB hard drive on eBay, that will give me about 30% of the price of the new Terabyte hard drive.

Time: Today I listed my old 50 GB hard drive on eBay. The audition will finish in five days. If I sell this drive I will be able to buy the new 1TB hard drive in about five to ten days, completing the upgrade of my system in about two weeks.

Objective 2: Egypt Trip

Specific: My girlfriend and I would like to visit the pyramids of Giza next summer. It would be a nice holiday break that we both want to do. We want to stay in Cairo for most of the trip, and visit the pyramids at least twice: at day time and at sunset.

Measurable: We don't want to spend more than £700 each (accommodation and flight only), or staying for more than 10 days. We have calculated our holidays and we both will be free the last two weeks of July.

Achievable: The Company where my girlfriend works is not on a good financial condition at the moment and it can go bust at any time, leaving her unemployed in the middle of a recession. My job is stable, but my course at TVU may take some of my time during the last two weeks of July.

Realistic: We may not achieve the goal based on financial grounds and time frame availability. There have to be a commitment from both us, whatever happens, to have the last two weeks of July free, and we should start accumulating some savings to finance the trip.

Time: In order to get a good discount we need to book at least six months in advanced, therefore the 14th of February 2010 was designated as the dead line for booking the trip. We should not spend much this Christmas and save as much as possible for the trip.

References:

[1] Setting SMART Objectives. http://www.thepracticeofleadership.net/2006/03/11/setting-smart-objectives/ [Accessed 9 October 2009]

Report writing and avoiding plagiarism

For this exercise I have chosen the claim below and then argue its grounds, warrants and rebuttals. My choice has been influenced by the current recession the country is going through and the chances we students have of finding a stable job in the IT Industry after getting a foundation degree.

The second part of this exercise is focused on the subject of plagiarism.

The claim

"Britain is facing an IT skills crisis".

Grounds

A search in Internet of the sentences "Britain IT Skills crisis +evidence" "Britain IT Skills shortage +causes" using www.bing.com and www.cuil.com shows significant results, surveys and thrilling examples that prove the authenticity of the claim.

"Lloyds TSB recently announced that the move of two thirds of their ICT staff to India was not to save money. The UK throughput of ICT graduates has halved over past five years, is now below that in 1996 and is about to fall further."[1]

"And it is unlikely a strong ability in basic Microsoft Office tools will be enough to fill the ever-widening IT skills chasm, with e-skills UK recently revealing the IT sector is expanding at such a rate that 140,000 new staff will be needed annually for the next five years."[2]

"Unless steps are taken now, there will not be enough qualified graduates to meet the demands of UK industry, warned Professor Nigel Shadbolt.
Professor Shadbolt has released previously unpublished research which shows that in the past four years demand for IT and computer graduates has doubled while at the same time the number of students studying the subject has declined by a third."[3]

Warrants

As a personal example, I would like to highlight the fact that, on the first four weeks of the part time course of Cisco CCNA that I'm doing, the number of students have fallen from the initial figure of around 15 to only 5, that's a drop of more than 50%, meaning that if the remaining candidates are successful there will be a much lower number of trained people for Cisco technology than initially expected.

The society is relying more and more on the services provided by the Internet and IT technologies, applications and resources are running on silicon devices, and

this current era of the human race is fundamentally based on an infrastructure of interconnected devices in one way or another, for which there is only a minority of people capable of providing support and maintenance. This system is going to increase in size, and its complexity will grow with it. And with bigger complexity, on a society where the value of simplicity if sought after for everyone, there will be logically less people reluctant to study complex technologies, which will cause a lack of skills.

We can compare the aging of the UK population and the need of care and health services with the increasing complexity of Programming and other branches of IT that is in need of vital developers.

Rebuttals

The claim has been on the news for a few years, and if it was true that we are heading for a shortage of IT skills workers, where are all those hundreds of job adverts for technologies that are evolving the society at the rate of Moore's law[4]? Newspapers should be devoting dozen of pages to IT job vacancies, but they are not. As Colin Beveridge points out more research needs to be done on this subject:

"As a fairly logical person, I tend to approach a large problem by breaking it down into smaller pieces, until each component becomes manageable - I suppose that's why I was quite a good programmer in my time. So why on earth can't we apply this approach to managing the UK skills base? First, we need to determine whether we actually have a skills crisis, then we need to know how the national skills profile will change over time - in other words, how many people we will need and what skill-sets must they be carrying."[5]

There are views that put the blame of the apparent lack of IT skills workers in the attitude of employers who denied training to their employees, meaning that the workers are there, but they need to be properly trained and looked after to prevent an offshore migration of skills workers already qualified.

"Alex Farrell, managing director of The IT Job Board, said in a statement: "The IT sector is a rapidly evolving one, and it is down to employers to invest in their staff, both via systems and training, to ensure they stay up-to-speed with the changes."[6]

References

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[2] Mark Samuels (2008) IT skills crisis not solved via death by PowerPoint. http://knowledge.computing.co.uk/2008/03/it-skills-crisi.html [Accessed 23 November 2009]

[3] Pallab Ghosh (2006) Computer industry faces crisis. http://news.bbc.co.uk/1/hi/6155998.stm [Accessed 23 November 2009]

[4] Moore's Law. http://en.wikipedia.org/wiki/Moore's_law [Accessed 23 November 2009]

[5] Colin Beveridge (2007) Thought of the day: Skills crisis? http://www.computerweekly.com/Articles/2002/05/27/187387/thought-for-the-dayskills-crisis-pull-the-other-one.htm [Accessed 23 November 2009]

[6] Natasha Lomas (2008) Is there a UK IT skills gap or not? http://management.silicon.com/careers/0,39024671,39368852,00.htm [Accessed 23 November 2009]

Plagiarism search results

These are some examples of search engines queries I have done about the subject of plagiarism. The search engines used are Cuil (www.cuil.com), Ripple (www.ripple.org) and Google Scholar (scholar.google.co.uk)

Plagiarism Summary

"Plagiarism is the use, without adequate acknowledgment, of the intellectual work of another person in work submitted for assessment. A student cannot be found to have

committed plagiarism where it can be shown that the student has taken all reasonable care to avoid representing the work of others as his or her own".[1]

With so much information available to us thought the use of Internet, the black beast of every educational institution (plagiarism) has become bigger than ever and very difficult to trace. Students can now dig into search engines and literally copy and paste ideas and references in pages of their own native language (in case they are foreign like me) or extremely remote web pages that will make very difficult the discovery of the illegal use, even for specialised Plagiarism Detecting Software as cited by Maxim Mozgovoy: "Several systems to detect plagiarism have been proposed. However, their lexically-based analysis is not powerful enough and can be foiled with minimal efforts." [2]

In order to avoid plagiarism, educational institutions should stress the following points to all students:

- Clearly define the penalties that the use of plagiarism will develop into, underlining the assertion that you could be expelled from the institution and carry the mark of plagiarism on your academic profile forever.
- Strongly encourage students to research and research, teaching them how to reference their works properly to avoid plagiarism. Often, a good work could be full of references to other works but meaningless without these references.
- Appeal to the good conduct behaviour of student and their sense of honesty. Plagiarism mostly occurs at University levels where candidates are smart enough to perform the plagiarism, and also morally mature to understand the wrong nature of what they are doing.

References

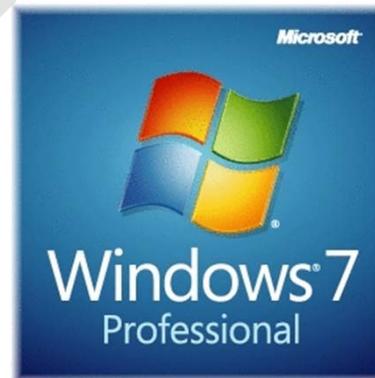[1] Plagiarism http://www.abdn.ac.uk/sls/plagiarism/ [Accessed 23 November 2009]
[2] Maxim Mozgovoy (2006). Informatics in education. http://portal.acm.org/citation.cfm?id=1149716&dl=GUIDE&coll=GUIDE&CFID=63204205&CFTOKEN=63503384 [Accessed 23 November 2009]

Microsoft® Windows 7

- Removing the Vista Demon

- Drivers Integration
  - ✓ XP [5.1]
  - ✓ Vista [6.0]
  - ✓ Windows 7 [6.1]

- Windows XP Mode

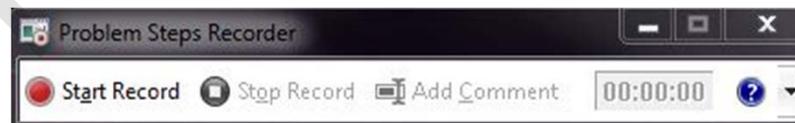# Microsoft® Windows 7

- FOUR + 1 stars for Windows 7 ★ ★ ★ ★ ★

  ★ Spinning Tool replaces "Print Screen"

  ★ Problem Step Recorder

  ★ Remote Desktop from anywhere

  ★ Backup Disaster Recovery

  ★ MS Security Essentials
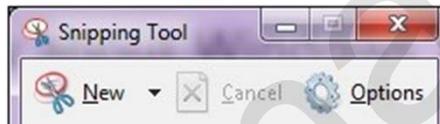
Microsoft® Windows 7

Get it now !!!

Windows 7 Upgrade Advisor

http://www.microsoft.com/windows/windows-7/get/upgrade-advisor.aspx

Windows 7 Student Offer

http://www.microsoft.com/student/discounts/theultimatesteal-uk/default.aspx

Promotion finished 3rd January 2010

£30

Ensure you get Windows 7 Professional
(not Home Edition)

Problem Solving step-by-step

In order to present the set of instructions as clearly as possible, I have chosen a task that virtually everyone has done in their life.

The problem

Take a pill, either for headache, fever or for vitamins intake.

Knowledge base

A bottle with pills, a flat surface, e.g. a table, and a glass full of water

The instructions

1. Obtain the bottle containing the pills.
2. Verify the expiration date of the bottle.
3. If expiration date is not found: do not proceed.
4. If expiration date occurred in the past: do not proceed.
5. If expiration date is to happen in the future: continue.
6. Read the label of the bottle.
7. Ensure the purpose of the pill fits your needs.
8. If for your condition you don't need to take the pill: do not proceed.
9. If the label states that it will heal your condition: continue.
10. Remove the lid from the bottle.
11. Place the lid on top of a flat surface, e.g. a table.
12. Extend the palm of one of your hands.
13. Carefully, proceed to incline the bottle over your hand
14. Start shaking the bottle slightly.
15. Ensure that only one pill is poured over your palm.
16. Close the hand holding that single pill till it forms a fist.
17. Place the bottle of the pills on top of a flat surface, e.g. a table.
18. Close the bottle using the lid you previously removed.
19. Obtain the glass full of water from the flat surface, e.g. a table.
20. Open your hand containing the pill and introduce it to your mouth
21. Drink the glass of water
22. Swallow the pill

Compare and contrast 2nd and 3rd generation languages

Third generation languages evolved as a refinement of second generation languages in the early 1960s. One of the main properties of second generation programming languages is that the language is specific to a particular processor family or environment. Second generation languages are written by the programmer, and in order to run on a computer it must be converted into the format that the machine will understand (binary). This conversation process is called 'assembly'[1], and it requires a high knowledge of the CPU machine's instruction set, making it also very depended of the hardware where the code is to be run. That created the obvious problem of lack of portability and flexibility,[2] because one set of code created for one particular machine could not run on a different machine. For second generation languages, the code is written in hexadecimal system and the operators are represented in English abbreviations, this is known as symbolic code, an example could be:

"ADD 43(9,2), B4 (10.A), READ BO 61"[3]

Evolving the design, third generation languages were developed to let the programmers to create the code without the knowledge of computer memory configuration. Third generation languages included their own compiler and could run on different hardware, being therefore independent from the architecture of the computer an able to migrate from one machine to a different one without problems. As an upgraded version, third generation programming languages made the code more programmer-friendly, with the expression of concepts and syntax in a way that favours the programmer and not the computer, thus making the programs easier to read and write[4]. An example of third generation programming code could be:

"PROCEDURE DIVISION.
DisplayPrompt.
DISPLAY "I did it".
STOP RUN"[5]

Third generation languages are also known as "high level languages" or 3GL, while second generation are known as assembly languages.[6] Third generation were design to be easier for a human to understand. They often follow procedure code, which means that the language perform the routines written in specific procedure when something is done. Second generation programming languages are non-procedure languages. Third generation languages also fully support what is called 'structured programming', a logical model that allows for a more efficient construction and operation of the program[7]. A clear advantage of structured programming is the ability to eliminate, or at least reduce considerably, the use of the GOTO statement[8].

Examples of second generation languages[9] are Autocode[10], SPARC (Scalable Processor Architecture)[11] and SPS (Symbolic Programming Language)[12].

Some of the third generation programming languages are FORTRAN IV (Formula Translating System)[13], BASIC (Beginner's All-purpose Symbolic

Instruction Code), ALGOL 60 (Algorithmic Language) and COBOL (Common Business Oriented Language)[14].

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[4] Wikipedia. Thrid-generation programming languages. http://en.wikipedia.org/wiki/Third-generation_programming_language [Accessed 10 January 2010]

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