A Systems Analysis O Design Reader

by Vanessa Claudja P. Carlos

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Dedication

I would like to dedicate this book to the following persons who have helped me one way or another in making the completion of these papers possible:

Our professor, Mr. Paul Pajo Jr., for teaching us the true meaning of perseverance and patience;

My dear friends, Angel, Camz and Tasha, who never miss to photocopy the latest case study for the week without me;

My twin flame, who constantly reminds me to be the best I can be; My beloved family, who serve as my inspiration in all that I do;

And lastly, the Almighty Father, for without Him, the world wouldn't even have ceased to exist.

Preface

This book is a compilation of paperworks and presentations needed as

partial fulfillment of the requirements in Systems Analyis.

The case studies, book reviews and use cases have been made in a weekly

basis, while the Systems Analysis and Design, or simply, SAD paper, has been

completed at the second half of the term. The said case studies are about the

successes and failures of several founders and the lessons I have learned from

them. The books used in the book reviews are all related in Systems Analysis and

Design and were borrowed from DLS-CSB's Learning Resource Center. The

topics in the use cases have been assigned to us by our professor, Mr. Paul Pajo.

It is hoped that readers of this book will find this compilation useful and

knowledgeable, as I have also learned a lot from authoring these papers – not

just IT-wise, business-wise, or career-wise – I have also learned lessons that we

can all apply in our lives. ©

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Book Reviews

BOOK REVIEW #1

Author: Mark Lejk and David Deeks

Book: An Introduction to Systems Analysis Techniques

Reference Number: T 57.6 L43 2002

Chapter: Chapter 3: Spray and Tree Diagrams

Quote: "Spray and tree diagrams are therefore two different techniques, but complement each other and are frequently used together. They work the same way that our own thought processes do – firstly capturing information, then organizing it."

Review:

The 3rd chapter wasn't as long as the others, but it was definitely a very important one. It showed that spray and tree diagrams are very much relevant in Systems Analysis, because when we do both, we save a lot of time, effort and money in getting the data we want. It was also very clear and precise.

The information given was straight to the point. The book also gave an ample amount of examples and illustrations that helped me understand how the two diagrams work. It also was complete with a brief introduction as well. It's also good that they have prepared an exercise for the reader to make sure that he/she understands the chapter well.

BOOK REVIEW # 2

Author: Mark Lehk and David Deeks

Book: Introduction to Systems Analysis Techniques

Reference Number: T 57.6 L43 2002

Chapter: Chapter 16: Drawing it All Together

Quote: "To every complex question there is a simple answer: and it's always wrong."

Review:

The last chapter provided the summary for the whole book. It was useful because the last chapter contained the most important details. It was also brief, and contained what a systems analyst really needed in his field of expertise.

It defined systems analysis in a way that any individual can understand. It gave different approaches to make things easier for a beginner. It also gave guidelines in maintaining and using a motor car, as an example.

It reminded the reader that Information Systems is a subject evolving almost every hour of the day. Truly, it gave techniques on how to become a good systems analyst. It also gave a useful exercise at the end and more resources or good reads about Systems Analysis.

BOOK REVIEW #3

Author: Mark Lehk and David Deeks

Book: Introduction to Systems Analysis Techniques

Reference Number: T 57.6 L43 2002

Chapter: Chapter 2: Managing a Systems Development Project

Quote: "Techniques may equip you to carry our fairly sophisticated systems analysis, to identify and plan objectives, but it is communication, cooperation and collaboration that will

enable you to actually do the job."

Review:

The 2nd chapter of "Introduction to Systems Analysis Techniques" is all about who the systems analyst is, what values the said systems analyst should have and basic techniques on how on organization and management. On the first part of the chapter, systems analysis was defined. It was written there that systems analysts can be programmers or debuggers too, yet due to the increase of computer literacy, more people are interested on simply becoming a pure systems analyst. It was also written in the book the difference between a programmer and systems analyst. A programmer didn't need interpersonal connections, because a programmer's job was just to make sure that the application or program has no errors. The systems analyst, on the other hand, needs interpersonal connections, because analysis is more on discussions and negotiations. They play a very important role in a system's development and indeed, responsible for it.

After knowing that system analysts are legs to the whole system itself, the book gave advice on how to balance all of the pressure given to the system analyst. The system analyst should always think his/her decisions through. He should always remember that the system always needs development, and it should always be the system analyst's job to make sure that the system grows. The book gave advice on how to control a project. It also gave an example, like PRINCE, a project management method owned by UK's CCTA. The book stressed on one important thing in particular – objectives must be set. This is where the book introduced MBO, or Management by Objectives. This theory, simply put, states that there will be good management if what your objective or goal is clear to you. Objectives, though some do not see their importance, make us do our jobs faster, easier and serve as our inspiration, because when we're goal-oriented, we know that what we're doing is something serious. It makes us determined to do the best we can. The book stated that we should always aim to get the long-term objectives to get the big picture. The book also provided an example in managing your objectives. They were able to prove and show that knowing your objectives make us better decision-makers and make us more disciplined in what we do.

The book also discussed that tasks and roles are important, once you get to know the objectives. It would set us and organize our thoughts to what we should do and what we should maintain. The book also differentiated a team from a group. A team is a group of people who work together to achieve a common goal. With the book's help, I learned that teams are created by choosing the right members with the right skills, establishing ground rules, identifying the tasks needed and allocating roles so that the tasks can be done in a fair

manner. Team leaders should always maintain the team, and make sure that there is communication with each member, especially the leader. Each member should be committed into what task they're going to do. Cooperation and collaboration should also be present. It is always up to the leader to update himself into what the team is doing, if they're doing progress or anything. There should be at least one meeting a week, according to the book.

The book was also able to introduce us with project scheduling. Like any other ordinary scheme or venture, time is gold, and you should always get the deal done before the deadline. The book mentioned the difference between elapsed, or used time, and activity, or given time. If the project had a strict deadline, the book suggests that you set external objectives, like the size, the time to be spent and the content of the project. Internal objectives, or the ones not necessarily formally stated, but would improve the project itself, is important as well.

Also, to be organized, the book taught me to make a task list to be given to all employees, to make sure that their jobs were done in an organized manner. The book introduced three charts to do that – GANTT, Network and GASP. Gasp covered the weaknesses of the other two charts; therefore it is the most used type of chart. The book also gave meaning to forward and backward schedule, wherein the first one is suggested to those who do not have a deadline, while the second was for those who are in a strict one. The book also stressed that we should always stick to the schedule, and make sure that everything goes as planned.

BOOK REVIEW #4

Author: Mark Lehk and David Deeks

Book: Introduction to Systems Analysis Techniques

Reference Number: T 57.6 L43 2002

Chapter: Chapter 4: Introducing Data Flow Diagrams (DFDs)

Quote: "Techniques may equip you to carry our fairly sophisticated systems analysis, to identify and plan objectives, but it is communication, cooperation and collaboration that will enable you to actually do the job."

Review:

The fourth chapter started by giving the two types of views that we people normally have, but do not notice – the physical and the logical view. The book first gives simple examples on these two views that any beginner can understand. After further explaining this part, the book then goes to a more significant thing that a systems analyst must know and know how to use – relevant information. The book gives examples that explain to us what information supports the physical and logical views we have. It sorts out the most significant ones and later tells us that we should know how to do these things ourselves. I like the fact that the book started off using very simple terms and examples and how smooth the flow of learning it provides.

After this, the book then gives the predecessor of Data Flow Diagrams – the Document Flow Diagrams. The Document Flow Diagrams are defined as a simpler, less complicated and easier to understand version of Data Flow Diagrams, except that this version has more flaws because it only represents the physical part of the data, not the logical processes that occur. It describes the Document Flow Diagram first, and gives an ample amount of examples for us to understand this. The Document Flow Diagram, according to the book, can only pinpoint high-level errors or obvious problems that the process has, because of its limitation.

After making sure that the reader understands how the Document Flow Diagrams work, the book finally goes into Data Flow Diagrams, but the book does it in a slow way so the reader can easily digest the facts given. It introduces Data Flow Diagrams as a more powerful diagram than Document Flow Diagram, simply enough because it gives what the Document Flow Diagram could not give – two views – a logical view, and a physical view, that can point any problem or error in the business and proposes a new solution to that error. It concentrates on what data is needed. It uses the two views hand-in-hand for fast and effective development. The book then goes on the four stages of DFD: the first that shows the current physical view of the DFD, the second that shows the current logical view of the DFD, and the last two that shows the new proposed logical and physical view of the DFD, respectively.

The book makes sure that they provide the readers many examples so that they would understand what DFDs are, and what they can give. They even used the reader as a part of the examples.

New DFD terms are given and are spoon-fed to the reader. First are the three ways of communicating in the DFD, or the processes that occur. Next is the big advantage of using the DFD – the logical view of a situation that shreds the physical constraints, but does not remove the physical view as well. This gives us the chance to see what the errors to a system are, and with the last 2 steps of the use of DFDs in a system, they can provide an improved version of the 2 physical and logical DFDs to make a system better. The book also provides us with the four elements of DFDs – processes, dataflows, datastores and external entities. The processes are the thing happening in a system. The dataflows are the data that moves when things happen in a system. The stored data are involved with the things that happen, and the external entities are the people outside the system who are still related to the process. The book was able to inject all of these terms to us in a smooth and subtle way, which I enjoyed very much. Terms were easy to understand and anybody can relate with the examples given.

The book also made sure that the reader wouldn't get DFDs and flowcharts mixed up. In flowcharts, time is very important, but it was simply irrelevant in DFDs. Also, the book cleared that the DFDs are not flowcharts, because DFDs are simply a representation of what the system is – what happens to the data, where it comes from and what goes on, etc.

The book was also able to explain more thoroughly the four elements I already mentioned before, and even gave more examples to justify their definitions and descriptions. The book gave notes on how these four should look like and what they shouldn't be in the DFD. The book also gave several rules and notes in making DFDs, like processes are never duplicated and data flows should never cross one another, etc. The book then provided information on DFD leveling, wherein the details encrypted in the DFD shows what level the DFD belong to.

Lastly, the book provides one scenario where all of the things tackled upon the chapter can be given an example. It was about the stock control system. After that, to really make sure that the readers get what the DFD is all about, they provide two more examples on making one.

I can say that all in all, chapter 4 started of very nicely with terms that are easy to understand and examples that supported the terms given. Still, with every page, the terms get harder and harder to understand. This chapter, much like the others, needs total devotion when reading because some of the terms are hard to grasp. Also, each example helped a lot.

What I like about this book is that it even gave other resources we can look at if we still have a hard time getting what they're trying to tell us. It also gave exercises so that we'd be able to test ourselves on how much we really know.

BOOK REVIEW # 5

Author: Mark Lehk and David Deeks

Book: Introduction to Systems Analysis Techniques

Reference Number: T 57.6 L43 2002 **Chapter:** Chapter 12: Introducing PISO

Quote: "PISO was originally designed to help part-time business students appreciate how useful structured computer systems analysis techniques can be in sorting out problems and

inefficiencies in their day-to-day work."

Review:

Chapter 12 presents the reader with a new concept called "PISO", or Process Improvement for Strategic Objectives. The first dew paragraphs of the chapter states that PISO was originally for business students, so that they can easily understand the uses and importance of structured computer systems analysis in sorting our problems and inefficiencies in their day-to-day work. PISO represents graphically the physical and logical views of a situation, and since DFDs match what PISO needs, then these DFDs are adopted. Still, this part of the chapter states that this chapter won't be a continuation of the previous

chapter on DFDs, because PISO will just allow the strategic objectives of the organization to engage with the logicalisation process through DFDs.

After the introduction, the book then recalls the term "BPR" or "Business Process Re-Engineering", which the book reveals as a weaker version of PISO. According to this chapter, PISO is a stripped-down, method-based, 'do-it-yourself' version of BPR; nonetheless, PISO is the more successful one. Not only is PISO easier to do but it also provides better solutions rather than BPR. The book then gives an example of the PISO framework. What I've noticed in reading this part of the chapter is that the book is using only the terms that any person can understand, also using terms that have been stated in the past chapters as well. The authors of the book really made sure that students wouldn't have a hard time understanding the chapters.

The book then goes with views, objectives and stakeholders, where they remind the readers how to view any situation logically, what the objectives should be and what the vested interests are. The book goes with an old example from the former chapter. From this I can say that the authors are using same examples and developing these examples so that the student won't get mixed up with all the things he/she has already been reading from the last few chapters. After this the book states that PISO has a more slant logicalisation process, wherein all the physical constraints are removed, and in the PISO process strategic objectives are recognized. Then after that, they described the effects of the strategic objectives. PISO has a radical effect upon the shape of an organization

After this the book gives several examples. Another thing I've noticed in the book is that the book always gives ample examples, after every topic is further explained and compared. That's one of the things I like about the book.

After this the book then gives the stages and steps in PISO. While reading these stages, I've noticed that the book gives keywords and examples so that the readers would easily comprehend each stage, especially that these stages are very important because they dictate the outcome. After further explaining how PISO works, the book then introduces the steps in PISO that uses the DFDs, just to clear things up. I like the way that the book explained details slowly and made sure that the readers can chew and digest information one step at a time.

The chapter ended with a suggestion that PISO would be used in the development of 'green field' systems. I think that this is a very nice last touch for the chapter because it invites the readers to give their opinions and think of their own ways where to use PISO, too. The book also, as usual, gave useful exercises and other good reads about the topic PISO, in case the readers still did not understand how PISO works.

The chapter, all in all, was short and simple, and gave a lot of examples and used simple terms in explaining the topics needed. It was filled only with the significant details and even left the readers with something to test their minds with and more good reads just in case the book was insufficient. Over all, it was a very informational chapter, and the value of PISO, not only (but especially) in systems analysis was shown.

BOOK REVIEW #6

Author: Mark Lehk and David Deeks

Book: Introduction to Systems Analysis Techniques

Reference Number: T 57.6 L43 2002

Chapter: Chapter 9: Logicalisation of DFDs

Quote: "The reason is the logicalisation of DFDs includes the logicalisation of datastores to ensure that the data is not duplicated – and we like to use data modeling to show you how

to do this."

Review:

This chapter started by reminding the readers of the two types of DFDs – the current physical, which gave an outlook on the seen and obvious procedures of a business, and the current logical which showed a viewpoint wherein the transformation of a procedure and the logical view of a physical DFD is seen.

After this the book gives ample reasons why logicalisation is important. According to the book, it is important to see what the system is really trying to do. It is like seeing the brains behind the action, since the physical circumstances are masking what's really logically going on. Through logicalisation, one can easily see the mistakes a company has been doing. It supplies a picture of the policy behind the system and highlights areas that need to be highlighted. It gives the people an actual view of all the sides of the company at all the angles possible. It can even simply save the company by viewing the system's strengths and weaknesses.

Next, the book then introduces the concept of BPR, or Business Process Reengineering. It has three steps – first, is improvement. This needs the less rationalizing. Next is re-designing, which needs more rationalizing than the first one because it states the reasons of why putting up the system in the first place is the right move. After this is reengineering, this needs the most rationalizing and brains, because it is the one that describes the most dramatic improvements that a system can go through.

The book then dives to the step by step procedures in logicalisation. It gives guidelines, like rationalizing the data flows, the data stores, the processes and lastly, reconstructing DFDs. This part of the chapter was short and simple, yet concise and proved to be straight forward. That's one thing I liked about it. It was easy to understand. After this the book then gives a plentiful amount of examples, one on the student assessment system and explains how each step goes. I liked this part of the book because it was able to explain to the readers very carefully with basic terms how the logicalisation works. It gave the physical view at first, then slowly it got its way to the more logical view of how the system runs. The book gave all the aspects further explanation and the authors made sure that the readers wouldn't end up asking more questions or confused.

The book then gave a shorter second example, on Marine Construction, and gave the physical view at first as well then the logical view. It described the data flows, gave plenty of

diagrams for all the levels of DFD and like the first example, used terms that were easy to understand.

Logicalisation may seem tough, but it is very useful and stimulating, if you think about it. It is actually, the most important step in having a sound system. It is especially important in a system that practices BRP.

The book was also able to give exercises to test his knowledge. If the reader has a hard time understanding the book, he can check other resources that the book gave so the reader wouldn't be misguided. The chapter might be short, but it was simple and it made sure that the readers got the point pronto. It gave 2 examples that were both very leisurely explained.

BOOK REVIEW #7

Author: Mark Lehk and David Deeks

Book: Introduction to Systems Analysis Techniques

Reference Number: T 57.6 L43 2002

Chapter: Chapter 6: "Specifying Processes"

Quote: "Often decisions are made or operations repeated and to describe this we need a way of writing accurately, unambiguously and completely; these processes are contained in

elementary process descriptions."

Review:

This chapter starts with an introduction to what DFDs cannot do, and from where elementary process descriptions fall into. The book then further explains on why and how important precision, accuracy, being unambiguous, and completeness are in systems analysis. It also describes each of these values as well. From the first part, it was very clear and evident on how the author wanted the readers to fully understand what they are trying to say with the use of terms that any non-technical person can understand. It even gave scenarios and examples as well.

After this, the book starts with an example to explain the problem with using simply the ordinary English. It states that English has inconsistencies and inaccuracies that can cause a long description with errors. The book then defines what structured English is. It is a clearer view of the ordinary version of English can is based on the 3 logical constructs: sequence, iteration and selection. This is something we learned in our ImProg1 class – just something I'd like to add. The book then defines these three logical constructs and gives example to each of them. Sequence is the ordered way of how to get a product. Selection uses the if-else statement while iteration loops processes. The book then shows the variations made in structured English.

Next, the book dives into decision tables and gives a definition on them. They are actually not just used in systems analysis, but in any case where decision brainstorming is important. There are 4 quadrants to decision table – conditional stub, action stub, condition entry and action entry. There are also 3 types of decision tables – limited entry, extended entry and mixed entry. In the limited entry decision tables, conditions are identified, next are the actions, then the number of rules. The book gives an example so that the reader can understand the flow of events easily as well. The extended entry decision tables are for conditions that are inter-related with each other. Lastly, the mixed entry decision tables are the limited and extended entry types. The can be merged but not in a single line.

After this the book goes with decision trees. The book gives a plentiful amount of examples so that these decision trees will be easy to understand. The book then gives a situation that would highlight all the topics covered. It gave the end-of-the-year assessment system, the background, then the narrative description with conditional and iterative logical constructs given.

What I liked most about this chapter is the way it was taught, using simple words that any mediocre person can understand. It was also very wealthy when it comes to examples. It also gave an exercise at the back part to test one's knowledge, books that the reader can read if ever he/she is having trouble in understanding the chapter, and a website to visit for more inquiries in the topic involved in this chapter.

The chapter maybe a little short, but it was very important, considering that without decision trees and structured English, any system can fall down due to lack of organization and details.

BOOK REVIEW #8

Author: Simon Bell & Trevor Wood-Harper **Book:** Rapid Information Systems Development **Reference Number:** QA 76.9 S88 B44 1998

Chapter: Chapter 1: Information Systems and Organizations

Quote: "By informing, the system assists people (generally referred to in the IT context as the

'users') to make intelligent decisions."

Review:

The first chapter of this book starts by explaining how important information is. Also, the need for information systems is given. It says that data has to be gathered, information is derived from this and knowledge is grasped as well. It also gave a few attributes of information systems. It also said that computer-based information systems work well, but not always as efficient. That is what the book is for – to give effective information systems planning for organizations while taking into account this ranges of issues.

The book then dives to the different areas that the information systems support. It also gave reasons on why there are poorly planned systems: first, desktop microcomputers are not run by experts from computer profession; secondly, hardware and software require exceptional skill from users. The book also states the features that their book has to offer: you don't have to be an expert in computers, it's about information systems design, this book is simple to use and understand, and lastly, this is useful to both a wide range of professionals working in their own disciplines and lecturers.

After this the book goes to the problems of IT again. First is the patchy understanding of the computing involved by the potential users, 2nd is the very wide range of requirements by the users, 3rd is the awkward environmental factors and last is the high-cost training. The book then gives an example and several learning points: First, always draw management into the analysis and design stage; second is that irrespective of professionalism the planner/analyst must have the humility and common sense to see the client as central to a working system; third, short-term success can lead into long term failure, unless there is long-term support. This is a danger for all information systems projects; fourth, a system should be designed to meet the needs of today and tomorrow and the next day, so far that we can predict it; and lastly, a good practice always ensure that an information system is going to a hostile environment.

The book also stresses some points: information systems have to planned, because they can easily figure the success rate of the business. Systems Analysis and Design, or information systems planning should not be too technical and should be understandable by all.

After this the book then dives to the conclusion, several exercises, other resources so that if the reader had difficulties in understanding the chapter, they can consult other books that this book has recommended.

This chapter, although short and simple, had proven to be very important because this chapter sparks the idea to the reader how important SAD is in making a company successful.

BOOK REVIEW #9

Author: Simon Bell & Trevor Wood-Harper **Book:** Rapid Information Systems Development **Reference Number:** QA 76.9 S88 B44 1998

Chapter: Chapter 2: What is Systems Analysis and Systems Design?

 $\textbf{Quote: "} Systems \ Analysis \ and \ systems \ design \ (SA\&SD) \ describes \ the \ means \ used \ to \ plan \ an$

information system."

Review:

The 2nd chapter of this book starts by defining systems analysis and systems design. Systems Analysis and systems design (SA&SD) describes the means used to plan an information system. Then it gives out the basics of a SAD methodology, which are discovering what the problem is, discovering the settings of the problem, the resources and constraints used, the information components, testing the model, etc. Then the book gives out the 5 very important disciplines in order to be good system analysts – systems thinking, personal mastery, mental models, shared vision and team learning. These 5 disciplines are later more rationalized and explained, by giving each of their definitions, where they are applies and what the possible outcome will be, once they are utilized. Systems thinking has 2 main components – the links and the loops. Loops are re-enforcing or used fir balancing. This is applied when contexts are unclear. The outcome is a description and insight on the topic. Personal mastery, on the other hand, is articulating a personal vision, seeing reality clearly and making commitments to the results needed. This is applies to contexts where individuals are in transition. The outcome of this is empowerment. The mental models are based on reflection and inquiry but also the recognition as well, that we all create unconscious mental models all the time. It is applied to any situation that needs learning. Its outcome is for clear self-analysis. The next discipline, shared vision, is built around the 6 core ideas - organization has a destiny, deep purpose in the founder's aspirations, not all visions are equal, there is a need for a collective purpose, it is useful to have forums for people to speak from the heart and creative tension. It is applied in the context of dramatic change. The outcome is an organization-wide clarity of purpose. The last discipline, team learning, is learning through conversation, dialogue, and skillful discussion – the aim is to achieve 'collective mindfulness'. It is applies in the contexts of team development, and the outcome is group consensus. After this, the book gives a clear cut example on how these 5 principles really work in action. The book uses terms that are easy to understand so as the reader would not have a hard time on decoding certain technical jargons.

The next topic is the axis or continuum. The left part of this continuum is called soft or generally social sciences based approaches in exploring problems. The right part involves the hard science approaches. This has 8 assumptions and each is very important. Next, the book gives an illustration on how the exploration, methodology and the tool sequence work. After this, 2 examples are given – how a management systems planner knows if a series of measures aimed at supporting decision making at middle management level will be accepted by staff, and the systematic and reductionist tendencies and continuum on this. Reductionism is the core behind most of the hard sciences and is centered on the philosophical teaching of the positivism. It is used today in structured systems analysis, technical specification and data analysis. The systematic is used in real human activities. It can be used in general systems theory, soft systems methodology and socio-technical systems.

Lastly, the book dives into the research approach and methodology. It states that we should be selecting the appropriate combination of methodological tools for a particular situation in which we are working. Next, the book gives an example or a problem context. It gives plentiful amount of examples – an action research model and an anti-action research model, a multiview, etc. These examples are further explained so that the reader would

understand the illustrations and charts given. The authors see to it that the terms used in the chapter would be easy to understand.

The chapter ends with the systems analysis and systems design approach of the book itself – the action research, their multiperspective way to feed information to our minds, and how they do this with an eclectic mix of both soft and hard, as I have already explained this on earlier. The chapter was easy to read, because even though it was short, it was full of information and examples. The exercise also helped as well.

BOOK REVIEW #10

Author: Simon Bell & Trevor Wood-Harper **Book:** Rapid Information Systems Development **Reference Number:** QA 76.9 S88 B44 1998

Chapter: Chapter 3: The Role of the Systems Planner or Systems Analyst

Quote: "All analysis must start from the basis that reality is complex and the analyst is part

of this complexity."

Review:

The chapter starts off with a statement very important to the reader: "All analysis must start from the basis that reality is complex and the analyst is part of this complexity." Before anything else, the authors remind the reader that the analyst will be handling a lot of complicated work, and it's their job to do it. The book then generalizes that their goal is to instill the different types of individual will conform to different types of analysis and design stereotypes. The stereotype doesn't represent an actual person – it's a metaphor that says we should all understand what our strengths and weaknesses are. If you're more on technical things, then you should be able to fix a problem with objectivity and rigor. If you feel that you are an agent of social change, then you should change the existing status quo radically. If you're a facilitator to assist the problem solving then you can find the meaning or the causes of problems. If you're a catalyst of change, then it means you want to change the states of mind and behavior. These four self-images are very important. These constitute on the career a systems analyst can go through.

I think it's good that the book opens the doors to the reader and gives them a sneak preview of what career paths are available. After this, the chapter next dives to the topic of the history of the analyst. In the years of isolated computing, about 25 years ago, the hardware system was all very important. Computing systems were built for reduction accounting. The features of this period were: mainframe oriented, computer experts were remote, and analysts dealt with the technical system and were considered invisible. After this, the consolidated computing period came. This period was all about programmers and poor documentation. The features were mainframe and minicomputer oriented, no user interface and the analysts were still invisible. The third period was when the management controls and restraints were imposed. The key to this process was the enforcement of

standards in terms of programming, new systems development and systems functions. The key features were mainframe, minicomputer and microcomputer oriented systems, computer expert worked directly under business management control, the beginnings of crude user interfaces and finally, the analyst became a management aid. Still, the approach did not allow easy access to computer power. The development of the microcomputers has ushered in the role of the user, focusing on applications software, and distributed computing to remote officers, far from the computer department. This included several features, such as an advent of microcomputer networks, the expert operating as a facilitator of user needs, the emplacement of strict control of the computer functions by the organization and then, the analyst becomes central to understanding the needs of the user. The last period, the user/machine interface, makes the users and the computers more equal to the struggle of communication. The features are: the internet and the intranet, the invisible technology, invisible experts and the era of 'We are all users now.'

The chapter then goes to the last topic, where the reader is given an activity to see what area he/she belongs to. These questions are assessed one by one. The development of the analyst is next described with a figure and a table. The intellectual framework is stated, the methodology used, and the area of application is stated as well.

BOOK REVIEW # 11

Author: Simon Bell & Trevor Wood-Harper **Book:** Rapid Information Systems Development **Reference Number:** QA 76.9 S88 B44 1998

Chapter: Chapter 4: Terms of Reference and Selecting Our Planning Development Tools –

Sequence and Schedule

Quote: "The golden rule however is never to exceed the boundaries of the system as seen by the founding body without first convincing all the major stakeholders in the system that such a course is both right and necessary."

Review:

The fourth chapter starts with the terms of reference needed. It gives a basic introduction on the reality on analysis and what systems analysts are capable of doing. According to the book, the analyst can move freely if the funds they can use can be stretched. This is possible and will depend on the ability of the analyst to convince the funding body that more or less may be required, and the willingness of the funding body to be flexible. Also, the book gives a very important message – the golden rule – that exceeding the boundaries of the system should never be done, as seen by the founding body without first convincing all the major stakeholders in the system that such a course is right and necessary. The terms of reference are the principles that guide the pre-analysis. The learning cycle of Kolb in which all activity is based upon reflecting on what has gone before is also included. This is followed by connecting. The deciding aspect is the final selection of the

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methodological tools and techniques and the doing is the analysis and design itself, followed by implementation of the project. The learning cycle means that the lessons from experience are gathered by the team. By making use of systems thinking and mental models driven by shared vision achieved during the first four items of the cycle, various strengths arise, including the development of team learning and enhanced personal mastery in analysis and design procedures as well as understanding the organization.

The next part is about selecting the right tools in analysis methodology. These tools should conform to the conditions set out in the terms of reference and the personal preferences set out in our self-analysis. The soft systems methodology comprises the analysis of what Checkland has defined as the Human Activity System (HAS). The HAS is the main element of the approach used to soft systems methodology. It has three core parts or items – the rich picture, which is devised to show the principal human, social and cultural activities at work in the perceived environment. This includes the structures and processes at work in an organization. Next is the root definition, which by identifying the key customer, actors, and transformation expected, assumptions, problem owners and environments, attempts to structure the results of the rich picture analysis into a more mutual perception of what we can do for the problem stated. The next and last item is the conceptual model, or systems model, which sets out the key systems and sub-systems involved in the new improved information system. It is an outline of our attempted design. Next, the book dives into the information modeling. Here a more quantitative and technical approach is needed. In here, the major entities and their functions, events that trigger these functions and the attributes or discrete elements are drawn together. If we apply these, the key systems identified can finally be generalized. After this are the social and technical requirements. This is the third phase that requires the analyst to bring together the right mix of social and technical aspects. The key hardware are the human alternatives, costs, availability, and constraints, which give the proper mix. The mix should always be feasible and sustainable. After this is the humancomputer interface, which deals on how the human and the technology can communicate. The last aspect is the technical aspect, which involves the design of the necessary technical aspects to produce a technical solution. The six major systems and the core of the information system are also given - applications area, retrieval, database, maintenance, management and monitoring. The methodology should tell you which to use - and not use these all. One of the major constraints though, in analysis and design, is cost and time. Still, you can say that the result of this will be worth it.

BOOK REVIEW # 12

Author: Simon Bell & Trevor Wood-Harper **Book:** Rapid Information Systems Development **Reference Number:** QA 76.9 S88 B44 1998

Chapter: Chapter 5: What is the Problem? The Human Activity System – Making a Model

Quote: "It should be noted that the development of human activity system (HAS_, as set out in this chapter, is the result of practice in a wide variety of contexts." **Review:**

The fifth chapter starts with an introduction to the human activity system. It is said that one of the most important things to remember is that the development of the human activity system (HAS) is the result of practice in a wide variety of contexts. The job of the systems analyst is to alleviate the problem by improving the information processing capacity of the organization. After this, the book gives out an illustration that explains the situation of the organization. In outline the process of the HAS analysis, from the said illustration given, can be summarized as it begins from the standpoint if perceiving the information problem situation. From this arises the first tool the creation of structures of the rich picture. This should define the tasks and processes involded in the problem context. The next stage is then given emphasis, which is the root definition in which CATWOE criteria is used and it sets out the fundamental features of the problem context. From this, a new model can be created of the improved situation. This model is now called as conceptual model. The book then tells us that it can also be called as systems model.

The purpose of this is to assist the analyst because in order to know the information that flows into an organization and the system that keeps it in order, knowing what HAS is very significant. The analysis of the human viewpoint of a situation should perceive the organization's problem situation as defined in the terms of reference, identify the tasks and issues thru the rich picture, identify and note key conflicts of interest, come to an agreed definition of the problem that is to be tackled, and lastly, set out the outline of the improves system themes in the system model.

The book then dives to what the rich picture is all about. It starts with the preparation phase, in which the reader is reminded that the analyst often needs to understand the problem context rapidly and in this process of understanding has a chance to bring the degree of impartial and uncommitted analysis. The book then gives tips on the analysis and design application tools that will be used thoroughly. First, the user participation is usually essential if the analysis is to be useful. The problem is not the analyst's property - it belongs to the organization and for this reason the individuals in the organization must be brought into partnership with the analyst designer as part of the problem solving team. In this, the useful tools involved are a preliminary meeting with all concerned with the analysis and design. A SWOT analysis of this can be used. Then, regular workshops throughout the analysis can help as well. After this, another tool of analysis and design is the rigorous application of the agreed terms of reference. Many forms of systems analysis and systems design tend to spill over into areas that are not contained in the original problem. Next is the reporting, in which all stages of analysis need to be adequately reported, primarily for the analysts' own benefit and also as an aid for the stakeholders. The use of interview techniques is the next tool in analysis and design. Key points in this phase are initial contact, sequence, understandable questions, caution, neutral style, and documenting the interview itself. The last tool in analysis and design is the basic observation of site an behavior.

After this the book blends with the primary components of the rich picture – structure and process. Structures are grouped as soft and hard. The hard structure tells us that the department is composed of several discrete sections. In the soft picture the range of structures some more formal, informal and political are identified. Several examples are given.

BOOK REVIEW # 13

Author: Simon Bell & Trevor Wood-Harper **Book:** Rapid Information Systems Development **Reference Number:** QA 76.9 S88 B44 1998

Chapter: Chapter 6: Information Modeling: Making a Workable System

Quote: "This stage is vital if we are going to build an information system ourselves."

Review:

The sixth chapter starts with an introduction to information modeling. It gives us a brief overview of how important this stage is. To achieve a high measure of accuracy in terms of information modeling the task can take a considerable amount of time to work itself out in great detail. One of the most important things that this part entails is that we do not want to spend our time on lengthy academic reviews – we need to think about our information system, and that it is actually going to do and attempt to produce an outline system that is practical and workable. We should ask ourselves about the entities, attributes, what the functions are and the events that trigger these functions. After this, the major features of the analysis are given – the entities, the functions and events. The entity is where the records are kept. The need for a degree of flexibility is essential because the entities in a system can range from the major individuals who are working within the organization. The attributes (of the entities) are the ones that build up the entities themselves. The functions are actions that take place within the information system and concern entities. The events are triggers that make the functions occur. After this the book gives plenty examples so that the reader can comprehend to what the book is explaining.

Entity models are introduced. They are usually the primary components to look at. If we do not know what we want to keep records about then we have not got a system view to work from. It is possible to start off the analysis with a review of functions or entities. For the purposes of the continuity of this multiperspective methodology, the clearest collaboration between HAS and info modeling is from system model to entity model. To model the entities, first, list all entities for the new system.

Next, group all related entities into blocks. For each block, draw the entities as boxes, link the entities and show on the link line the nature of the relationship. Put all the blocks together. Link the blocks and indicate the nature of the relationships. One of the things to

avoid in this is flooding. Flooding refers to the potential complexity of the final model if we were to map out every single entity that comes to mind.

After this, the book divulges into attributes. They form the basis for the fields of the eventual database for the management information system. One way to do so is making a entity/attribute matrix. In the entities found in the x-axis, the attributes that follow are in the y-axis.

The next step would be functional decomposition, wherein a hierarchy of tasks broken down into their component and even subcomponent parts is stated. This is used to show and separate the major components to the subcomponents. The book now goes to another example for this.

Next part is double checking the entities and functions. When complexity increases it is useful to supplement the analysis with a little double checking to make sure that the picture of the entities and the functions create sense.

This gives us and make it clear that we have already completed the entity model, a key list of attributes, the size and rate of change of data in entities and the correlation of entities and relationships in this level. In the events phase, the DFD or the Data Flow Diagram is introduced. More examples are given to show the meaning of DFD. In the last part, all of these stages are tied together.

BOOK REVIEW # 14

Author: William S. Davis

Book: Systems Analysis and Design: A Structured Approach

Reference Number: QA 76.9 S88 D33 1983a

Chapter: Chapter 1: Structured Systems Analysis and Design

Quote: "[Structured systems analysis and design] is a step-by-step approach to system development, beginning with a logical design, and gradually moving to a physical design."

Review:

This chapter is an overview of the whole book. First, system is defined. It is a collection of men, machines, and methods organized to accomplish a set of functions. After this, the book goes to a more in-depth description of systems analysis and design. It begins with a user. The user needs technical support, but doesn't know how the computer can do the job. Enter the systems analyst, who translates what the user is asking for into language that the programmer understands so that he can fill the dialect needed for the computer and the user to communicate. The systems analyst, therefore, fills the communication gap from the user to the programmer. The analyst must be able to deal concurrently with a user group, the technical professionals and the management.

Next goes the engineering methodology. The systems analyst is compared to the things that the engineer does. The engineer's job is similar to what the systems analyst's job is. The

engineer first begins with a logical sketch of the project. The systems analyst creates this one as well, only that the systems analyst creates a use case and a DFD for this at first. Once the design is accepted, the model is constructed. This is where a miniature version of the building is made. This is also where the activity diagrams enter. After this goes the blueprints, which can be changed when needed, and lastly, the building is made.

Next, the system life cycle is described. First step is the problem definition, where research is needed. The source of the problem is also stated here. The statement of scope and objectives should also be given afterwards. Next goes the feasibility study. This is where the solution is searched. After this, a rough cost/benefit analysis is given, and the scope and objectives are said as well. Next is the analysis, where the steps in solving the problem is stated, and the logical model of the system, the data flow diagram, the data dictionary and the algorithms are stated. After this step is over, the system design or the high-level design is next. This is where how the problem is solved is discussed, in outline form. This is the arranged version of the first few steps. The methodological approach of this structured systems analysis and design increases the likelihood that significant errors will be detected early. After this, the implementation is given. The systems is physically created, necessary programs are coded, debugged and documented. New hardware is selected, ordered, and installed. After is the maintenance, where the keeping of the system functioning at an acceptable level is the goal. It is essential that specific, measurable milestones or objectives be set for each step in the process. The best way to learn on how to analyze and design systems is to analyze and design systems. You don't have any other way to do so. There is no substitute for experience.

The book provided very clear examples and the terms used were easy to understand. The book also provided short exercises in the back page. This book, I can even say, is the best book about systems analysis that I've given a book review on, so far.

Case Studies

CASE STUDY # 1: Max Levchin: Cofounder, Paypal

What amazes me about Levchin and Thiel's story is that they both did all of this mostly for the betterment of mankind. Not to mention, these two brilliant people started from scratch. Proof to Levchin's good intentions is when he first created or emulated the algorithms for Palm Pilots and shared them to his friends, and even posted it on the web for free. Although money is a factor, it is clear that what they wanted is to make things easier for all of us.

The story also shows great determination to get to the top not just by thinking, but thinking outside the box. Because of Levchin's open-mindedness, he was able to solve the 'fraud problem' – something other competitors could not do. Both are very patient men, and I certainly admire their perseverance, because even though they reached moments that others could be losing hope and quitting, instead, they just simply used their minds and molded their idea into another. Whatever they have right now, they deserve it.

I was also able to learn a lot from their story. We can all dream big. We can work only for ourselves. We just have to work hard, be patient, be determined and learn to adapt, because change is inevitable. Let's just accept it and be optimistic about it. We shouldn't give up easily, because even though sometimes the going gets rough, we should always remember that if there's a will, then there's a way. Levchin and Thiel changed their business plans several times, but still, they adapted to what the people wanted, and in no time, they got to live their dream. ©

CASE STUDY # 2: Sabeer Bhatia, Cofounder, Hotmail

I could easily understand how I could see a lot of similarities between the first case, involving Levchin and Thiel, and this case, involving Bhatia and Smith. Like the first case, Bhatia and Smith were first fronted with failure. Instead of giving up, they took other turns and creatively shaped their first business plan into the idea of a web-based e-mail that could be accessed anywhere around the world, as long as there is a computer with an Internet connection.

I also realize a fact from one of their failures. As I've said earlier, change is inevitable. People are sometimes afraid to take the risk, because even though change can be good, there is still that possibility that some would not accept it because people are used to their way of living. Still, Bhatia and Smith made a wise move with web-based mail that later on, they named as Hotmail. They made changes, but small ones, and slowly upgraded the old e-mail with the newer one that's even easier to use, so that people would embrace this change. Also, they attracted the mass by offering free web-based e-mails, which also proves something that Levchin and Thiel also have – the mail goal of making life easier for everybody else.

Another thing I've learned from their story is that we shouldn't let fear get the better of us. When they were afraid that others could copy their idea, they didn't run off and back

out. They simply used their heads and got past their fears. I also learned that each step in whatever we do is crucial and important. They made sure that each move they made couldn't backfire, and put to practice the saying that an ounce of prevention is better than a pound of cure.

When asked for Bhatia's advice, I smiled. It was different from the usual advice business tycoons like him gives. He suggested to work with someone, because when everything goes wrong – which is something that happens a lot of times in a business, you'll need not just the help of your partner or colleague to solve the problem, but also the emotional support your partner would give you. There's always a way out. If God closes a door, He'll open a window. Another is that since change will always be there, and some are scared to open up to changes, we should make sharp decisions by making small yet important and effective changes so people would accept them. Be wise. \odot

CASE STUDY # 3: Steve Wozniak, Cofounder, Apple Computer

I remember our IncoSys subject when I read Steve Wozniak's name on the photocopy Mr. Pajo gave us. Back to our first term days, we were able to watch "Pirates of the Silicon Valley", a movie about how computers started, and more specifically, what really happened between Apple and Microsoft. Even though the movie was more focused on Steve Jobs and Bill Gates, I still could never forget Steve Wozniak, a brilliant mind, who was responsible for one of the greatest leaps of mankind – the start of computers.

When it was revealed that Wozniak, even before as a young college student, was able to create what his other colleagues at Homebrew Computer Club strived hard to make when he was much older and created a lot more than that, it was very much obvious that he was destined to create something that could possibly change the lives of people all over the Earth - and it happened. He even helped in Cartravision, and made games for Atari. Apple had a lot coming, with Wozniak's amazing technical skills and Job's charismatic confidence to make sure that Wozniak's hard work would all be worth it.

What's amazing in this is that Wozniak didn't care about the money. He was very much generous to even give most of his hard earned cash away, and sell stocks, because all that he wanted was the feeling and the pride that he was able to do this. He really just wanted to be a teacher, that's why he quit. He was brilliant because he had no money. It never became an obstacle to him, instead, he was driven to still invent and design by improvising. His lack of money also helped in the sense that he made things more compact—the less number of chips, the better. He even didn't have knowledge for programming language, but he was able to figure out Basic, simply by reading from Xerox copies given to him by a friend. He was very much determined to fulfill his passion in life. I wish more people would be like him. He wasn't consumed by greed, all he wanted to do was build.

I could say that I learned a lot from Wozniak's story. Determination sparks your dreams. We should all focus on what we want, and make it happen, and we shouldn't let anything stop us from reaching that goal – not even financial problems. We should think of these obstacles as challenges and maybe it could even be for the better. Whatever product we decide to do though, it's important that it should be affordable, simple, user-friendly, and most importantly, effective. We should also be very careful with what we make, and take intricate details very seriously, as to prevent problems that could arise. Also, whatever you do, don't just make it good. Never let what you do rest, until the good becomes better, and the better becomes best. ©

CASE STUDY # 4: Joe Kraus, Cofounder, Excite

Joe Kraus, together with 5 of his friends from Standford, were able to prove the friendship and business can mix together nicely. They were able to create Excite, the fourth most popular search engine on the web.

With Kraus' story, I learned that we have to do something that we enjoyed or at least liked, because we will never give our best if we really don't like what we do. He also proved that anyone can start a start-up, and that we can all dream big. He also showed that a corporation run by friends isn't bad, because with this, you already know the strengths and weaknesses of each person and use them to be successful. He was also able to stress in his interview that any business is a risk, therefore we should always take the opportunities that come along our way. As he said, opportunity creates opportunity. He also quoted this from someone: "Success is 50% luck and 50% preparedness for that luck."

It also made me realize, that if an idea was turned down by many, it doesn't necessarily mean that the said idea was bad. Also, since business is a risk, then wild or crazy ideas should be entertained – even if it's new, because change is inevitable, after all. Also, it's important to make precise decisions and think of actions first before you do them. I also noticed that one of the most influential and helpful persons in Kraus' story was Vinod. He was always there when Kraus was in turmoil and would make things smoother for Kraus. That was a supporting factor in Kraus' statement that having friends as leaders of the corporation is a good thing.

Lastly, Kraus was able to impart his advice to other aspiring leaders: first is to hire slowly and more carefully. We should hire those who are competent and trustworthy. After all, a business is much like a pyramid. It is build of systems that if one fails, the others also fail. Also, we must strive to be cheap – yet, effective. We should remember that we are making products for people to use, and we can always improvise or find solutions to make things cheaper.

I also noticed that despite all the fame and success, Kraus still remained a humble man. He was still finding it hard to digest that he was tasting the fruits of their hard work, and that what they made, as I've already said, was able to become the fourth most popular search engine in the World Wide Web. As a line in Desiderata goes, "Enjoy your achievements as well as your plans. Keep interested in your own career however humble; it is a real possession in the changing fortunes of time."

CASE STUDY # 5: Dan Bricklin, Cofounder, Software Arts

Dan Bricklin and Bob Frankston's Software Arts might have fallen, but their idea lived and was passed on generation to generation, and still is responsible for the incredible softwares we have today. They were able to make VisiCalc, an electronic spreadsheet, which Bricklin felt the need of during his days in Harvard Business School. In one short weekend, he was able to make this said spreadsheet, and with Frankston's help, their dream became a reality. Soon enough, their product, VisiCalc, became a huge demand, especially in the business world, where people would actually buy Apple II's just to install this.

Just like any business, they experience problems, like expressing values, formulas, etc. It was very much hard for Bricklin to specify these all because he wasn't just dealing with a programming language, he was also dealing with the principles of Mathematics. Still, he was able to get pass that with WYSIWIG - What You See Is What You Get - and even though it seems simple today, it was a big problem for them back then. They were on the top of the hill - everybody wanted them. Apple and IBM made commercials for them. EDS, a multi-million-dollar company, used VisiCalc. They were sky high, until they had a dispute with VisiCorp – and got involved in a lawsuit. Bricklin advised then, that we should stay out of lawsuits, because it won't do anybody good. This distraction killed them, and sank their company, especially since 1-2-3 was also made. VisiCorp also suffered. In the end, Lotus bought them, just before they were about to go under.

The fact that they fell down didn't change my respect for them, personally. It was a huge thing that they were able to reach the top, and because of a mistake, they fell. It was just sad that they did, but at least they were able to reach glory. He admitted that him and Frankston had had a lot of arguments, but it never stood in the way of them reaching the top. They had trust for each other, and I think that's important in business partners. They shared their work equally. I also learned not to be afraid of what other's reactions may be, because even if you get turned down, everybody's entitled to their opinion, and just as long as your product is good and effective, and you think that people want it, it shouldn't change your passion in your goals. We shouldn't be afraid of failing because failing is a natural thing; if we don't try, then we won't have a chance at all to live our dreams. As I've said earlier, business is a risk. It was clear, as well, like others, they had their fair share of hard work. Without them, softwares today might be still starting, right? I also learned that once you reach the top, nothing should change – you should still try to maintain your position, A Systems Analysis and Design Reader

because falling down or failing is never out of the options. Be ready; aspire for the best but prepare for the worst.

CASE STUDY # 6: Mitchell Kapor, Cofounder, Lotus Development

After reading Kapor's story, it became clearer to me just how bad the damage was when Software Arts was being distracted by legal conflicts. It was proved to be truly lethal, because they had Kapor's idea right in front of them, but they turned it down. They were that distracted. Kapor was willing to share his idea, but Software Arts didn't care much to look deeper into what he had in mind. They were too busy with what they thought their only problem was. That was where I got one of the things I learned from this story – listen. Always listen to your employees, the buyers, or the people around you, because you can't always think of everything, right? Also, it is practicing everyone's right to be heard. After all, that's what made Kapor decide to do things in his own, because he didn't like the fact that Software Arts was casting his idea aside. This is why when he was finally the boss of his own company, he made sure that employees were heard. This is also why they loved their job at Lotus. Kapor practiced what he had learned. Personally, I applaud him for that; it was a brilliant move.

I am also very much amazed at Kapor's idea, brought to reality by his partner, Jonathan Sachs. Even Kapor himself admitted that he was very lucky to have hired Jonathan Sachs, because Sachs was exceptional in what he was doing. They were able to upgrade VisiCalc, even make it work in IBM PC. It was faster, it was made for IBM's 16-bit architecture – nonetheless, it was better. It crushed VisiCalc, the original "killer application". Even though Kapor and Sachs made mistakes – they almost ran out money, hired the wrong people, picked the wrong successor, expanding too fast – everybody makes mistakes. The point is, you stand up, and try again.

Another thing I admire about Kapor is that he wanted to work with entrepreneurs who are personally passionate, committed, and believe at what they're doing. He wanted to hire men just like him – someone who's passionate in what he's doing, and wants to make something that can change the world, not someone who's just in it for the money. I believe that that's the true definition of an entrepreneur. Yes, they make money, but it's just a part of it – the true satisfaction of an entrepreneur comes from the fact that what he contributed to the people could change their way of living. This is one of the reasons why it is clear that Kapor truly deserves what he got. He's a true entrepreneur - wise, doesn't quit, listens, wants to make sure that the good becomes better, and better becomes the best.

I also liked that he said that we should all be clear in the values that we should have, because in entering a business, we might get conflicted and confused in what we should do. I think that that was good advice. A lot of people make mistakes when it comes to that. I also like that he think that it's fair if other companies make the same product as he did, because as long as they made it independently, there's nothing wrong there. That was very fair of A Systems Analysis and Design Reader

him. It proved that he still maintained to think fairly, even though at his position, others could have thought that they were threats, and get rid of them. He made a wrong decision about that though, but at least, he realized that he was wrong.

I also learned that we should be careful when making a deal with VCs. We should know all the terms and conditions before we let them get a share in our company because we could suffer the same fate as Kapor did. Some VCs are selfish and unfair, mostly when they know that the entrepreneurs are new in the business. They abuse the ignorance of young, inexperienced entrepreneurs. That was when Kapor changed this when he entered Accel Partners, and made sure that everything was fair and just. That was another thing he learned, another mistake he corrected and practiced. He was very open to what the deal was, what other options the entrepreneur has, etc.

All in all, I'd have to say that I have a high regard for Kapor's way of thinking. I repeat what I've already said – he truly deserves what he has. I have learned a lot from him. He was wise, ambitious, fair, modest, and most importantly, he's got the heart of a true entrepreneur.

CASE STUDY # 7: Ray Ozzie, Founder, Iris Associates, Groove Networks

It's amazing to see that these successful people I've been reading about are somehow related to each other. Of the three stories I've read today, Ozzie was the only one who taught me that we all should be open-minded. We should think of something that can change the future, not the present. It can take too much time and sooner or later, the moment's gone. This is exactly why Ozzie and his brother, together with his friends, thought of Groove. They have noticed that most of the people are disappointed with deploying systems across enterprises. People had different technology about boundaries because most of the time, business partners don't have the same technology. What Ozzie wanted to do is for people, especially those in businesses, to share files, ideas, etc easily, in a very secure manner. Although the internet can do that, Ozzie wanted Groove to provide a clear connection between entrepreneurs that's sure to be safe, in a easily manageable way.

I admired the fact that Ozzie was a guy set with a long-term plan. He thought things through. Hr even had a founding document where he wrote possible scenarios and Groove solving the problems in the said scenarios. He even declared the technologies that were used and organized. I learned from him, just like all the others, you have to be very careful in decision-making, because once you do something you can never change it. Think of all the pros and cons first; know if you're really up for the challenge. Ozzie was able to justify this when they were thinking whether to write Groove in C ++ or in Java. He was really able to study even the smallest and most intricate details.

One of the things that I've seen in this story is that whoever you are, how rich you maybe, the fact is risks are never out of the factors in a business. You just have to take them. I was very much amused as well as to how brave Ozzie was, and how strong his belief was that he and his friends can make this work. Even if the Bubble had just deflated, he didn't run out of hope. At first, he was just packed with an idea he knew was great, and he went with it, even if there was technological and market uncertainty. After all, he was planning for the future. He had such a long time frame. He had challenges, like in hiring, because according to him, in the dot-com era, it was hard to hire people who had technical expertise, because they were all too rich. Another challenge is that Groove was something new, so people really didn't trust them much, at first.

I also learned that if you can fund yourself, or if you can get money in another legal way, then do it. Although there is nothing wrong with Venture Capitalism, it would still be better if you get the money yourself so that there wouldn't be possible problems that could come in the future. Also, I learned that the hardest thing is changing the norms. I guess, people are used to what there way of life is and are scared to make a huge step too quickly. That is why the right way to go is to change slowly, subtly, so that people won't be overwhelmed. Know who the people around you are, because connections can help you a lot. This was proven to be true when Ozzie approached Mitch, and Mitch introduced him to Accel. Also, experience is very much important. It's very hard to be in a business or a company without even being introduced to what you're getting into, or who are the people you should be dealing with. Working in a company can get you this experience. With this, you'll know who you should stick with, and the ones you should stay away from.

I learned from Ozzie that when joining a start-up, we should always get to know who the leaders are and how they work, because they represent how the company runs. Like what Kapor said, always learn to respect what other people have to say. After all, no man is an island. Work coordinately with others. Lastly, according to Ozzie, we should learn to adjust to the fact that your idea, your product, your company, is not necessarily yours only.

What Ozzie said in the last paragraph made me realize that these successful leaders have one thing in common. All of them made a product that they knew and believed would be something. They all wanted to change the world, and make a difference. They were goal-oriented and didn't quit, even though things seemed hopeless at times, because they were determined to share their idea with the world. It wasn't just about making money. It was part of it, but it wasn't what made them truly happy. That's the thing I am in awe of, mostly.

CASE STUDY # 8: Evan Williams, Cofounder, Pyra Labs (Blogger.com)

The first time I read the words "Blogger.com" in the hand-out Mr. Pajo gave us, I have to admit, I was very much intrigued. See, I myself am a blogger. I consider this as one of my hobbies; every time something interesting happens to me, or something pops into my

mind, I just type away. I don't have a blog at Blogspot.com/Blogger.com though, I just type my entries in my Multiply account. Still, I always wanted to make an account in Blogspot.com. In short, as a huge fan of blogging, I was pretty curious how Evan Williams made blogs the way they are today.

Williams' story was different from the other stories I've read. He taught me a lot of new things, things that people normally don't notice. Just from the fact that Williams started his idea of Pyra Labs after failing a company was very much inspiring. In his veins, it was crystal clear that he had the blood of a true entrepreneur- someone who never quits. Instead of just giving up because of such a painful experience, he picked up the pieces, learned from his mistakes and stood up. He was brave enough to even move to another place, from Nebraska, to California. He knew from then on that he had to make something. He knew that the product should come from him. And when he thought of the idea of a web-based project management tool, he consulted a friend, Meg Hourihan, and decided to go for it. They knew that they didn't really have money for it, and even though they just self-funded it, they still continued. They obviously worked very hard in making their ideas a reality, and eventually, when they were expanding, they came across the idea of an internal blog they first called "Stuff", that they posted on the web. It was fun for them because they were able to post anything they wanted. Eventually, they decided to turn "Stuff" into a product, which they called "Blogger". It wasn't easily building it. Keep in mind, they were only self-funding, and yet they were also working very hard to build Blogger. When they were done, people were slowly noticing it, and later on, everybody's using it. Blogger became a success. The only problem was that they still weren't making any money. For a while, they were funded, but as time went on, when 2001 came, everybody left Williams. He was literally the only person left in keeping Blogger. He always said that even though they weren't making money before, what's important is that Blogger was a hit. Another reason why Meg and the others left was due to their differences in opinion. Williams was mostly always the only one who had a different opinion from all of them.

It was very clear that Williams believed in Blogger so much, that he was willing to wait for the time when opportunity would come that he would make money. I think that's also necessary in having a start-up. You have to be determined, and you have to believe in what product you did, believe that it can help a lot of people and that it would be something. That's one of the things I learned from Williams. I liked the fact that Williams didn't avoid the fact that he failed before – and even sought the reason why his dream crumbled. He said that he lacked focus. That was something he never ran out of as he was continuing Pyra Labs and Blogger. He was fueled to make Blogger something, and he was able to do that. I admire that he was able to run Blogger and Pyra Labs by himself. It isn't just the pressure and all the work, but the fact that your colleagues – your friends – left you hanging. I could only imagine how painful, stressing and frustrating that was. And yet, as I've said before, he stood up, and continued his idea. With the help of people like Dan Bricklin, CMP, BigStep, and the users of Blogger who donated money to keep Blogger and Pyra Labs going, Williams was able to make it. Blogger was released from a coma and Pyra Labs was brought into life when Google bought them, and soon enough, Williams was secured.

He had an exceptional mind, an amazing idea, and he proved that even though several adversities came into his way – financial and social ones, he was able to continue his goal. Up to now, Blogger is the number one website that provides free blogs.

I learned that decision making is one of the toughest things an entrepreneur can go into, but as long as you think things through, and see that you're not stepping on anyone, then go for it. I also liked that Williams stressed that we should always listen to what we, ourselves, have to say. It's not that we're neglecting others, but if you can see something that others could not see, there might be something to that. We have to ignore the pressure that everybody's against what you think, because if you have another opinion, then it means you can also have another point. Maybe, just talk things out nicely with your partners. Understand that everybody has their own opinion. Not everybody can agree with you, after all. That's what meetings are for.

I also liked the fact that he said that sometimes, luck comes bad at first. Although there seems to be countless and endless challenges that come our way, we should always remember that in every cloud there is always a silver lining. Also, lastly, I realized how amazing simplicity is – that an idea like blogging that's not really that complicated was able to a big hit. I guess, that's what simplicity has to offer – it's clean, it's easy to get used to, and it's not terrifyingly new because it's just putting a couple of mediocre things together into something amazingly brilliant but still simple.

CASE STUDY # 9: Tim Brady, First Non-Founding Employee, Yahoo

Brady's story made me realize a lot of things. One of which is the importance of business plans and how they direct any given business to success. Brady's story also showed me the impact of being wise. This is seen in the story when a lot of big companies offered to buy Yahoo, but still, Yang and Filo believed in their product and had confidence that they could make it big on their own. That needed a humungous amount of courage, which truly amazed me. They weren't intimidated even if they knew that the companies like Microsoft, LA Times or AOL wanted them. I believe that it was even something they thought of as a confidence booster – after all, why would the others want them if they mediocre?

I also learned that proper management is very much important in running any business. It will direct and guide the whole team towards the top. I liked the fact that they were thinking in a realistic manner and hired a CEO to lead them, because they knew that the management gift wasn't endowed on any of them. I admire their determination and dedication in what they're doing, also the creativity within each and every one of them. Yahoo, of course, wouldn't be one of the most popular, if not the most popular web site today.

Like the other successful businessmen interviewed by Livingston before, Brady mentioned that friends and business *can* mix, and they actually blend quite nicely, because friends have high trust to one another, and everybody knows each other. Of course, this is true when the people involved in this business are determined and goal-oriented. In Brady's story, even though competitors came and they seemed very strong, they just did their best in improving Yahoo, and obviously, they came on top. I was awed with Yahoo's strategy that when a person types something in the search box that their site could not find, they would simply link the answer to another search engine – a competitor. This showed Yahoo's sincerity on helping people, not just making money, which made Yahoo more credible and reliable. That was one of the things they did that proved how wise they really were.

I learned that a person's background is very important when he enters any career. He should know a lot about what he's getting into – if you plan to be a businessman, you should at least know the basics for you not to make mistakes. Brady's story proved that business is truly risk-taking, but always make sure that when you take a risk, the pros and cons are well calculated. In their case, they didn't really know if the Internet was going to be hit. Yahoo is actually a perfect model of the saying 'No guts, no glory'. They went public, and it was their own idea, because they were able to rationalize that first and foremost, IPO windows don't last forever. Change is inevitable and they knew that. They were also very open minded, because they realized that in order to beat the competition, they should have an edge – they should acquire more companies fast. They had to have a public stock to do that. Also, they had to raise money, of course. So even if going public is a big, scary step, they weren't intimidated by the odds.

Brady also taught me to use my talents and skills in business. He taught me to hone these talents and make use of them in a wise and creative manner. He also taught me how important time management is, because once you enter a start-up, or any business for that matter, you will understand deeply that time is gold. Also, it doesn't necessarily mean that work cannot involve play. You can work for very long hours but still enjoy working, because it's what you're best at - it's what you do.

A mistake Brady admitted was that they missed Hotmail. They had a dinner with Bhatia and Smith, but they didn't see how Hotmail could get big. Still, they got over that mistake by going with Rocketmail instead. They also handled a lot of obstacles, like pornography and the balance between the look and speed of the site, especially during the time that the Internet was slow.

Also, it was proved that they were really working very hard to make Yahoo what it is today, in the part where Brady shared that even though there was a huge storm in May '95, it didn't stop them from working. I liked the part where when they hired a CEO, Mallet, he was very strict, and he always said that if they wanted to be big, they would have to act big.

It motivated all of them to do their work extra-ordinarily well, because in fact, hark work and perseverance are not just the 2 factors of a successful business. They would also

have to have innovative ideas that would leave an impact on us all. I also learned from their story to not be a quitter. Imagine if they quit, then the world today may not be the same.

One of my favorite parts was the last one, where he said that we should always know ourselves, what we do and what we're good at. We should know our limitations and constraints, because above all others, we should be the one who knows who we truly are, especially in entering a business. That's true, for us not to expect too much of ourselves. We should give ourselves rules.

After reading the story, it was crystal clear to me why Yahoo is what it is today. It was about good people, with amazing talents, doing what they do for the right reasons. They are truly remarkable role models that any businessman would look up to, for sure.

CASE STUDY # 10: Mike Lazaridis, Cofounder, Research in Motion

In Lazaridis' case, it was pretty evident that he had a technical gift within him. He was patient too, and this was shown in the part where state-of-the-art equipment from a local industrialist came to their school, and he opened each box, even if the teacher told him that the consequence was to read the manual. It was obvious that he was destined to be someone of high authority, related to I.T, someday.

Lazaridis made sure he used his skills and talents. I learned that you should always hone these gifts and use them. Imagine, just in college, he was able to make a local area network that ran industrial displays. It was so good that General Motors wanted it for S600,000. The incredible thing about all of this is that Lazaridis was able to do this LAN even if he was juggling a lot of studying and working, but it didn't affect the outcome of his project. From that part of the story, I learned that we should know how to balance our time and set our priorities. It must have took great discipline for Lazaridis to accomplish all of these, while maintaining his title as an honor roll student. Also, from this part of the story, I learned to use all the resources I have, like Lazaridis did. Since his school, University of Waterloo, had good equipment, also taught a lot to the students, Lazaridis used all of the things he learned and use them to polish his competence. That was very wise of him, so to speak, especially since he was still in college in that time.

One of the things I have a high regard for in Lazaridis' case is that he truly believed in his goal, and he was packed with pure determination to have start-up, that he bravely left school. For others, that might have been a stupid thing to do, but look at where Lazaridis is today? That shows that a business is all about taking risks, and if you have good odds beside you, then you'll be able to soar as high as you can. He also practiced long-term planning, wherein he was brilliant enough to think of the future and what's possibly in store for them, and build a product that would change the whole world. BlackBerry was a huge step for A Systems Analysis and Design Reader 33

innovation, and even if there was the threat that people could possibly not accept the idea of this change, Lazaridis still went for it, because he believed that wireless technology will be thriving in the future. Needless to say, he was right.

When they were still in school, others did not accept their idea; they believed that it was all science fiction and insignificant. After leaving, and doing a little bit of sales and marketing, people started to understand the importance of what they were doing. They even asked for a grant from the Canadian government, just as when they tripped on wireless data technology. That was a real turning point for them. They linked with a company called Mobitex, and soon made a wireless protocol software and the interface for it, and was able to make the first "interactive pager", that offered something the ordinary pager lacked – two-way communication. It was unsurprisingly, the hit of the market.

Another thing I appreciate from their story is that they were thinking of products ahead of time, which they knew would stand as a big step for the world to the future. They were bold enough to intercept the trend. It took them a lot of faith and vision that it would be big someday and affordable for people to use. I applaud them for that, and that part of the story taught me to be open-minded, especially in the world today, because there will always be room for change and improvement.

I also remember the part where he shared his dream of making something great for NASA. He was face-to-face with that opportunity, but in order to continue with his original plan, he gave that dream up for what is known today as BlackBerry. Providentially, NASA ended up using Lazaridis' creation to communicate with the International Space Station. In short, Lazaridis still was able to reach his dream, and went on to the right path as well.

It was also wise of them to launch their idea in New York, because they knew that New Yorkers are the main users of e-mail and systems. Also, these New Yorkers can afford BlackBerry's service.

Lazaridis' last advice can be a source of great inspiration, especially to Filipino inventors and businessmen. He told us that once you have a good idea, it doesn't really matter where you are, what's important is that you move for your idea and you make this thought into a reality.

CASE STUDY # 11: Arthur van Hoff, Cofounder, Marimba

After leaving Sun Microsystems, Arthur van Hoff, together with Sami Shaio, Jonathan Payne and Kim Polese started to build Marimba. Needless to say, that was a big risk for all of them. That supports the fact that a business is all about risk taking. One of the things I've learned from their story is that the first idea is always irrelevant, because it will

always be upgraded and improved into something better. You'll always check the flaws it has and erase them, and soon, you'll end up with a better idea – the second idea, the important one.

They were stormed by a big obstacle at first. When they decided to make a User Interface Builder, another company started to make a exact thing as well. What's bigger than that is that Netscape bought the idea of the other company, and after that they just threw the idea out because they couldn't compete with Netscape. That's another thing I learned from this story – we should always be realistic. They weren't pessimists in the story, but they knew what they'd be up against, and they didn't really have a strong belief in their product as well, because if they did and if they knew that they were better, then they should have fought with Netscape. I applaud them for being realistic and thinking clearly.

Their second idea, software distribution, where when you buy a software, rather than buying an improved one once it comes out, you'll just get updates automatically. That was one heck of an idea. Right now, we might not notice it, but it surely saved a lot of money for the people. But when they announced that they were doing this, PointCash came out. PointCash was doing things similar to them, which was a problem because they were known as a push company, like PointCash, which they were not. Soon enough they had lots of publicity, like in Wired magazine. From their story I learned that all press is good press, you just have to make the best of out of it, because of course, what we want is our product to get known.

I liked the part where they were included in Wired magazine and didn't announce what they were going to do - it's not like they knew it, but they said that they'd hide it because that idea might have made a lot of people curious to what they're doing, and make the media go nuts once they've released their product. It was very much clever of them to do that. Even though they had bad times, like when they had a bad article in Fortune Magazine, because Polese was always the face of Marimba, they got through that by solving their issues. When Polese didn't want to give up all the fame, she was dropped, because her head wasn't in the game. That's another thing I learned in Marimba's story – we should always know our goals, what's good and bad. Also, managing people and teams are the hardest things to do, therefore a good leader is always required in any business. Decision-making is also very hard and that requires the help of all the people in the organization, and should not just involve one person. A business must always have a strategy, even an exit strategy – and Marimba's was IPO. Marimba had had mistakes in hiring, therefore I learned that hiring is one of the toughest things in a business, because we have to call in the people who we think have the values and skills that an employee must have. After all, every employee comprises the business. Marimba has also made some mistakes in being careless, and from that I learned that we should always be careful in what we do, especially in a business because a lot of money is at stake.

In this story, I approved of the lesson that expenses shouldn't always be business-related. We have to create a friendly environment in a working office and make sure that the employees are comfortable and happy. Employees always have to feel that they are valued. I

learned this from the part of the story where van Hoff shared to us that they bought an espresso machine for the employees for \$15000. It was the best money they spent, according to him. It was a good investment because it was something for them, and it made everybody else even just a little bit at home.

When they were talking about VCs, I remembered the other stories I read about blackmailing VCs that wanted all the money for themselves. It was good that Marimba didn't encounter VCs like that, because it is true that a VC and a company work as a team, so there shouldn't be any fights between them. If one fails, the other also fails.

When asked for van Hoff's advice for people who want to start a start-up, he said that if you want to do it, then do it. You have to have good people with you though, because talent attracts talent. That was a good statement. Write your plan and show it to everyone – your friends, your parents and VCs. They'll eventually point out your flaws and you'll be able to improve these plans of yours. That's a good piece of advice by van Hoff, I can definitely say that when I decide to have a start-up myself, I'd do this first. I also learned to stay away from law suits by being extra careful with everything. Also, we can always go with what our gut tells us, not just with what others say. Lastly, we should always be fair to our partners, our employees, because we should always remember that without them, even just one of them, the company can fall apart. After all, we work in a system where each department is interrelated to one another. Companies are like families, if you ask me. Survival requires the help of one another.

CASE STUDY # 12: Paul Bucheit, Creator, Gmail

I remember the first time that I heard of Gmail. A friend of mine told me that Google was starting their own e-mail, and she laughed about it, saying that Google is only good for search and that their attempt on being big won't last long. I admit I agreed for a second, because I knew how big Yahoomail was in the business, but after a week or so, I ate my words and signed up for an account in Gmail. I was bored one time and I ended up tinkering on Gmail's website. What made me sign an account in Gmail, although I already had an account in Yahoomail, were the features it offered that even Yahoomail doesn't have that time. It had auto complete (not that I'm lazy, but that would be a huge help!), conversation view (My e-mails are messy, with this feature I can easily see a collection of e-mail, just like in chat), search, and the best one – one gigabyte of storage. That time, I was having major problems on storing e-mails on Yahoo because it could only offer a few megabytes, and when I was still in high school, we were sending different PowerPoint presentations, word documents, etc through e-mail. I still kept my Yahoo account, for personal reasons, and had a Gmail account for projects, etc.

In reading Bucheit's story, I was able to learn a lot of things. First, I found out that we should never be afraid in widening our horizons. Bucheit and his colleagues, although laughed at before, because Google was known for one thing only – search, didn't let others stop them from creating Gmail. They weren't afraid to deal with other big things, and they certainly took a huge leap with e-mail. Even when Bucheit created AdSense, he was mocked and ridiculed as well, but both AdSense and Gmail ended up successful, right?

Just like others, they faced a lot of obstacles – the whole 'they-can't-make-it' controversy, and of course, just making Gmail work. Like I said, it was a completely different thing for them in handling e-mail, so just maintaining it and making it better requires a lot of sleepless nights and hard work. It's pretty inspiring, what they've done, because amidst all the criticisms, they were still able to make Gmail what it is today.

Bucheit said that what he does mostly doesn't turn into anything, because he just likes to try out ideas and most of them don't go anywhere. I think that the good part on this statement is that he likes to try out his ideas. This is good because I remember the other stories I've read –some of them start their start-ups even as college students. They tried their ideas, and imagine where they are today. Still, what I don't like in this statement is that if the idea he tried works out nicely, but doesn't go anywhere because it's not given much time and effort, then the idea would be crashed, and it'll never go somewhere it's supposed to be heading. This is the part where I learned that all ideas should be tried out. Also, this is the part where I figured out that Bucheit doesn't have the blood of a person who'll make a start-up. Another thing that supports this statement is that he didn't believe in Google at first – he just came for the experience, and because he wanted to learn something. This goes to show that Bucheit may not have the start-up blood going through his veins, but he certainly has the blood of a true employee – he wants to learn, and support the endeavors of the business.

What I really liked about Bucheit though, was the fact that he took the user's perspective when he made Gmail. That was not only brilliantly wise of him, but also it shows his care for the people, and that what's important for him is the comfort and the needs of the people. Also, I liked the idea that he extended Gmail to everybody, including students, by spreading Gmail to the universities. That was a very clever and prudent move, might I say.

Also, I learned that an advantage in Bucheit's start-up project inside a big company like Google is that they can get all the resources they need – especially the smart people who they an always call for advice when they need them. That makes things a lot easier for them, compared to the other start-ups that start with nothing at all, which make Gmail even better. They also have the systems and the machines that were already there – no need for buying or building them.

I learned from this story that luck maybe a part in being successful, but it isn't everything – you have to put your heart in what you're doing, have the brains for it, the experience for it and of course, you have to have the determination that will spark your hard work and your best in what you do. I liked that Larry and Sergey, the creators of Google,

were bold enough and consider risks because unlike others, they are open to new ideas and to something unexpected. That's wise for them because as we all know, change is inevitable, and if we are too afraid to move, then the Earth would revolve without us.

I also see that in Bucheit's case, he was enjoying what he did, and had such strong dedication in making Gmail the best. If you put all your heart in it, as my mother would say, then you could do it.

CASE STUDY # 13: Steve Perlman, Cofounder, WebTV

First and foremost, I would just like to say how it amazes me that people are dawned with such creative ideas, such as Perlman's WebTV, especially back then, when the way of thinking for most people were a little bit more primitive and the technology was still slow. Just the fact that Perlman thought of this meant that he was truly destined for something huge, and that he deserves everything he has today. Even when he was still in college, it was shown how truly creative and open-minded he was, because even if had a liberal arts background, he still wanted to dive into the other fields as well – just to make sure that he gets what he want done.

One of the things I noticed when he was telling his story is that Perlman knows how to balance his time. He also isn't afraid to mix things up a little bit and explore; also he likes to work on his own stuff – which I liked the most. Even though he was doing other things as his job, he still didn't stop on making things on his own and works very hard to finish his work on a deadline. I also saw the significance of deadlines – it makes one person more dedicated in what he's doing and makes one more disciplined and career-oriented. I was also able to relate this part of the story with what I'm doing right now – passing papers on a weekly deadline, so that we're able to learn a lot every week and finish our papers at the appointed time. We're practicing how to be punctual, and this activity helps on molding us and preparing us once we really step on the business world.

Perlman had said one fact repeatedly – when we're working with someone, like a cofounder, we should always make sure that we have a similar perspective on where we're going. It's like a marriage, where to make things work, we should have the same goal and attitude – or else, just like a marriage can turn into a divorce, the business can fail and the ideas that come with it would burst like bubbles.

Another thing I learned from this story is that formal education isn't always necessary if you want to make something work, with your educational background – what matters is that you have the dedication to make it work – just like Perlman, as I have stated, finished a course on liberal arts but can effortlessly go through hardware, software,

networking, etc just but learning by himself. The technique I've learned from him is reverseengineering, so that one can easily understand the flow of a program.

Just like Bucheit, Perlman and his collegues were laughed at and mocked at first as well, but also like Bucheit, they were able to get the last laugh because they succeeded in what they did. People are always in doubt when inventors turn it up a notch and create something different and unique because they're afraid that the mass won't accept that big of a change, but as I've said, change is and will always be inevitable. It's another thing that I've learned – never let others affect what you want to do. It's amazing how Perlman believed in his product that every time a big rock prevents them from moving forward, he somehow finds a way to get pass through that – like the time when WebTV had financial problems and Perlman had put all his money, his house, etc on WebTV, he still got pass the problem and became very successful in time.

My eyes were also opened on how the business world really is. Other cases did not stress on this fact, but the business world is really tough – other companies even acted like vultures on WebTV, especially during the time that they were on the rocks. This part of the story warned me that success really isn't just something that happens overnight, because the obstacles that come to a business isn't called an obstacle for nothing.

The business world is the survival of the fittest. This brings me into what the story touched a little bit – Microsoft's unyielding triumph. Bill Gates, one of the richest men in the world, really does deserve a gold medal in making it. Although he did backstab a few, he was able to prevail in the principal I've said earlier – survival of the fittest.

He so badly wanted to be the best by eventually buying the companies that he knew could crush him someday. That was very wise of him – even the term "wise" is an understatement for Bill Gates – a household name, someone who became brilliant through his brains.

Back to the story – I also learned that one of the most important things in a business is that the product must always be user-friendly. These two words have a huge impact on the success of your business, because we all have to understand that the people who would be using this product are not all experts on the computer field, and some even hate technical terms, therefore how easy it is to manipulate the product is a very significant detail that shouldn't be dismissed.

I also learned that the environment – where you're creating your project – helps a lot, because for example – if you're in Silicon Valley, you get all the advices you want from people, the VCs are in reach, and people would understand if you fail.

It's like living in a community where you all have similarities. Also, in whatever product you do, what's important is its quality – even if you have the best people running the business, but the product they're selling is incompetent, it will never go somewhere.

CASE STUDY # 14: Mike Ramsay, Cofounder, TiVo

The first time I've heard of TiVo, it was a few years ago, and my cousin had called us from the US. She was telling us stories of our other relatives, etc, until she was finally telling us about TiVo, in a loud, ecstatic voice. I asked her what TiVo was, and since I was a couch potato back then, I was amused. My parents didn't really get it, but TiVo was definitely an exceptional idea at the least. After all, TiVo didn't become a household name for anything, that even Sex and the City would plug it.

Ramsay's story made me realize that confidence is very important in everything you do – especially in business. It's one of the major reasons why some people get to make it and be big, because they were confident with their ideas and they believe that it could change the world someday, somehow. Good thing he was lucky enough to travel to America, because according to him, this is where he learned all about confidence. Just like Ramsay did, TiVo surely changed the face of entertainment.

Ramsay and his colleagues had their fair share of problems as well – financial problems, how to make TiVo work, etc. But since they had such a flawless idea, they were able to get through all of this, also with hard work and perseverance. They were also able to paint an impressive vision on what TiVo would do, which made their product reach success. Even though they were a little bit skeptical that they were starting TiVo from scratch, without a big company that they can lean on or that the people already trust, they still continued on their goals, which I think goes to show that sometimes, the name of the company you're leaning on doesn't matter – because sometimes, you have to make a name for yourself.

They had a hard time recording and playing back videos on a low price, because just like any other business, they wanted to be affordable to the mass but also had good quality. The program guide data that would drive the function of the machine was hard to handle as well. They installed different features like replay, etc. They had to make sure that TiVo was "unhackable". They had several problems, and they had to face them all, but didn't quit because they had such strong beliefs in the product.

One of the reasons that TiVo became successful is because they were well-capitalized. That taught me that founders really have to have the same goal, the same drive, the same dream and must understand each other and work well together for the business to be successful. This also supports what I've learned in the past few case studies I've dealt with – founders who are also friends can in fact make the business run. Like what Perlman said, it works just like a marriage works, so better make sure that they have the same goals from the start or they can be heading into a rocky road.

From this story, I also learned that all press is good press, even the bad ones, because people will always have their own opinion. Not everybody's entitled to like what you have to say, because they have their own perception of things. What matters is that you make sure

that your product isn't doing anything wrong to others, and that it can offer something that others can't. Like Google, TiVo has also become a verb – that's just how big TiVo is today.

All in all, I've learned that what's important is that you work hard, you visualize, you control, you plan, and you practice brevity, variety, fragmentation, and know how to be a good leader if you want to start a start-up. But what's most essential and focal is that you have the determination and heart to really do what you want to do, not just for the money, but for the fact that you want to create something that can be of huge help to people someday, and will also take man one more step into a more advanced technology.

CASE STUDY # 15: Paul Graham, Cofounder, Viaweb

One of the reasons why Viaweb was such a complete success is because they were one of the first companies to ever offer the users what they really want. They presented the people a software that can finally give the people what they want their online stores to look like exactly, in the comfort of their own homes, because Viaweb was web-based. I give Graham a standing ovation for thinking of such an idea, especially at their time, when technology still wasn't developed. That's one of the things I learned from this story – be open-minded, and make sure that the perspective you have is advanced – after all, in every minute, technology expands.

Graham and Morris started from scratch – that part of the story told me that anyone who has an idea, a good one, something that the people need, can be successful, even if one doesn't have funding for it. You find a way to make things work, and use all the resources around you, especially the people around you. That's how a true entrepreneur works. I also learned that in creating ideas, one should be at his most creative state, yet still realistic.

In the story, where Trevor became part of the team, they admittedly underestimated him because Trevor seemed like a goof ball. Still, he was able to shock Graham by proving himself to be a prodigy – as Graham himself had described him. That taught me that I should never judge a person, especially in the business world, because as silly as he may seem to be, what matters is that he is tested to be good in what he does. This story also supported the fact that friends can blend well in a business, because trust and camaraderie is important in any relationship. Still, those friends should be goal-oriented and knows when to play and when to work. I admired Graham in the part of the story where it was stated that what mattered to them mostly was making Viaweb the best for people to use. Money was an issue, that is true, but they prioritized the quality of their system first. That's one thing I think is very important in any company – the competence of the product of service you're providing, and how important it can be for the users. After all, the products companies make are for the people, and these people who try your product are the ones that decide if you become successful or not.

I also learned that the level of how easy your product is to manipulate is one of the most important factors any businessman or inventor must know. Not all people are technical, so you have to make sure that your product applies to people of all types of intellectual abilities. I also learned that the interface is also very fundamental, since the interface is the one that attracts people. It should be simple, yet it should also provide all the details in a way that any user can understand.

One of the things that Graham didn't fail to stress was that we should never deal with anyone until the money's in the bank. This part of the story told me how misleading and tricky a company can be, therefore we should always be careful with our actions. However promising a company's words maybe, they can still change in a snap, so always be prepared and have a plan B.

Like all the others, Viaweb had their own share of tough times, like when Morris left them for a while and their investors try to outwit them. Also, it was very clear that Graham worked very hard to shape his idea and mold it into what it is today. Because of his and his team's persistence and determination, they were able to make Viaweb known by thousands. Many even wanted to buy them, but since Yahoo and Viaweb had the same aims and outlook, they only agreed to be bought by Yahoo. After all, they had such a brilliant idea that it wasn't surprising that they were able to reach such great heights.

Lastly, in all the advices he gave, what I liked most was to tell the truth. Some companies tend to bend the truth just so they can sell their products, but if you just stick to the truth, there wouldn't be problems and the success rate of the business can climb higher. Like what they say, any business should have a market strategy that practices the WYSIWIG principle – what you see is what you get.

CASE STUDY # 16: Joshua Schachter, Founder, Del.Icio.Us

From this story, it was pretty obvious that Joshua Schachter was a man of few words, but these words are proven to be straight to the point and true. That's one thing I liked about him. He was telling the important details, yet he remained polite. If he thinks he's about to step on another person, he says it in a respectful way that I think, gives us all a preview of why del.icio.us was able to reach great heights.

Schachter started del.icio.us as a simple idea, not thinking of it as a good product, but it was destined to be successful. I liked that he continued doing this and other side line projects like GeoURL or Memepool itself. It showed that he was a true programmer at heart, and all he needed was a little push. When he shared that he once chickened out on the opportunity to make del.icio.us something, there I was reminded that if there's no guts, there's no glory. If you have an idea and you think that it's something that could be huge

someday, then take all the chances you get to make this vision a reality. This is a gift that God gave us, and we should make the best of it. After all, opportunities don't just show up everyday, right?

I liked him being industrious, that even if he had other things to do, like his job, he still made sure that he made del.icio.us better if he thinks he can improve it. He was happy in what he did. From that, I learned that whatever gift God gave you – acting, singing, treating sicknesses, programming – you should always further broaden it because it is where your mind is, and if you enjoy what you do, you don't consider it as work or extra baggage – you even excel in it.

Also, the fact that others have been trying to make what del.icio.us did, yet failed, means that Schachter's brilliance was something else. I also learned that according to him, overcapitalization leads to failure. Money makes the business world spin, so we should always be careful in spending it. We should always take spending slow at a time, and make sure that the money spent will be worth it. In short, be practical and chop down bills and costs, and see first if it works so money spent will not be wasted. See first where your money goes before spending all of it, or else everything you've worked for will be ruined.

Schachter had problems and obstacles with del.icio.us as well, like scaling, dealing with bandwidth, routing, networks, tagging itself. Still, through hard work and good teamwork, they were able to make del.icio.us work with all of these possible. Tagging, which differentiated del.icio.us from the others was one of the rocks Schachter and his team had gone through but passed. This taught me two things: first, make sure that your product always has that "edge" that will cross out competitors; second, never give up once you've had an idea of that "edge" that you know will make your product rise to the top.

I also learned that in whatever you do, hope for the best but prepare for the worst. Assume that you'll fail and have back-up plans for each of the failures. Not that optimism is being erased, but when you look at a case in all the possible angles you can think of, chances that you'll fail will be lessened. Also, failure is always there and is inevitable, therefore we should accept that it is part of life and will make us better, through the lessons that we learn.

Constraints breed creativity – this is a fact that I had realized after I read it. It is very much true, therefore in situations that you seem limited to act or dissatisfied, there can be a silver lining, because these situations call us to be creative and think of a solution. From this, I also learned that whatever your idea is, you do it – after all, you hatched it. Don't let others benefit from what is rightfully yours. I was also reminded that the corporate world is truly full of trickery. There will be people who will try to deceive or mislead you, so you should always be wise and alert in whatever you do.

Lastly, Schachter taught me that less is more – simplicity is very important. Like what he demonstrated with his short-but-concise interview, we should always be just straight to the point. This is true too, in terms of money handling.

CASE STUDY # 17: Mark Fletcher, Founder, Onelist, Bloglines

Most of the case stories I have already read were successful in inspiring me with founders who start their start-ups from scratch, and then suddenly, somehow reach the top with their brilliant mind and strategies. I was sipping my midnight burner, my coffee, when I read that Mark Fletcher had started not just one, but two fairly successful companies, which ended up being bought by Yahoo and Ask Jeeves. Bloglines, the one bought by Ask Jeeves, was the one that really caught my attention though, being a fan of blogging myself.

Reading that Bloglines was something Fletcher made for himself made me smile. This part of the story supports the fact that sometimes, people just need to ask themselves, "What do you want? What do you need?" – because most of the time, your voice can also speak for thousands of others. If you solve your own problem first, according to Fletcher, chances are that you are solving the problem of other people as well. That's putting yourself in the shoes of others, too, if you think about it.

Fletcher then hires a great team for ONElist – marketing people, PR people, UI person and a programmer. It shows that he knows that he really can't do everything; therefore he needs help to flourish his idea. I also liked the fact that he was cheap, but in a good way, where he was wise enough not to buy his own PCs for ONElist – after all, virtual dedicated hosting services were always available. That was very practical and wise of him, because as he knew, money was always supposed to be taken care of since the business world spins with it.

One of the things that Fletcher stressed on was that a business, any business for that matter, can run and grow even with just a few money and more of intelligence and clever decisions. Imagine, he was able to make Bloglines and ONElist grow into what they are today with just few funding? That's something very impressive; in fact he didn't have such serious problems when it came to money, unlike the other stories that I have already read. Also, I couldn't help but notice the similarities in the mind set of Schachter and Fletcher, who both wanted to take things nice and slow by putting chopped amounts of money and not giving it all away. Fletcher didn't even deal with VCs, which was a notable thing for him to do. After all, business really is about risk taking, but it doesn't mean that the company can't be prudent about it. They can still take that risk, but they can always get the option of digesting that risk one small step at a time.

Although they had competitors, like NewsGator who started a web-based aggregator and the others who offered programs that can be downloaded, ONElist still came up on top because of their PR and good strategies as well. That's something I learned from that part of the story. They might have had tough scaling problems and other obstacles but like the others, if you have the determination, perseverance, patience, brevity and worked on an unrelenting pace, like Fletcher did, then any other businessman can survive, as well. I also liked the fact that Fletcher was very much mature when he was asked that he leave his place as CEO. His company was able to reach bigger heights, and although it was a bite that

Fletcher could have felt personally, he still didn't mind. After all, his mindset was what the good thing was for the company.

I was also reminded on how VCs work, and how power-hungry they can be sometimes, therefore at all times as a businessman, we should never entertain to it. It can trap you, especially if the people and the business is vulnerable. Another thing I learned was to get user feedback. That's something very important because it tells you what you need to do to be better. That was another wise move.

Another thing is that less is more. This is another similarity with Fletcher and Schachter. They may have different reasons why, but for Fletcher, we should release our products early, more often, because yes – there will always be room for improvement – but it can be something that the people will know and tell you, and when you improve it and entertain it, you can earn people's trust. That advice was nothing more than exceptional.

Lastly, when in terms of selling a company, that's a very personal step for most founders. After all, they put their heart and soul into the business they created. Still, if it comes, the founder should always understand that they made the business because they wanted it to be sold. That is – if they really made the business for that reason – but I think, if you think you have the guts and you can do it, why not go all the way? The founders of Google and Yahoo did it, who says that you can't?

CASE STUDY # 18: Craig Newmark, Founder, Craigslist

Just by reading the introduction to Newmark's story, I was able to see just how huge his impact must have been on the internet. First and foremost – without him, being able to put as his mission to build a community in the internet, then the internet might have not been this huge today. Although the brilliance of the internet was always destined for something huge, Newmark was one of the people who contributed deeply in making internet popular, as he even tried to make craigslist as free as possible. Secondly, craigslist itself is a huge spectacle of an idea that was very much in for stardom, since no man is an island and all of us have to be updated with our social network and the things happening around us somehow as well.

One of the things I loved about craigslist is that is was a low-budgeted company that got to be something. It inspired me that even if you don't invest your whole life savings on one thing, but it's that much of an idea, and then you can make it. Anyone of any level of status, but of creative and open minds can make their dreams into reality. Craigslist only has 20 employees, started on a feasible budget and was able to practice being wise and practical. After all, those are two of the most important values any businessman, especially one on a start-up, must have. I also like the part where he admits he's not good at managing –

meaning, he's honest and he knows where he belongs. That's how an entrepreneur should always think – what's the realistic facts and what should be done for the betterment of the company.

With Newmark's story, I learned that we can all take risks, but we have a choice to either make a huge one, or a calculated risk – something that brings a sort of 'organized chaos', and that there is nothing wrong with taking your time in deciding. That is how craigslist works, so why not go with it? Newmark also knew how to balance his time for things he needs to do – this is not only something I can apply when I work, but I can also apply it today, as a student. Balancing time is very important to get things done. Also, in the part where Newmark says no to banner ads, although he can make money out of it, when he says no – that's where I learned a little something as well. It's not all about the money – you created something because you want people to use it, you want it to work smoothly, you want what's best for it because you want others to treasure what you've made. Meaning, if you know that you'll add something to the site that could make your site run slower or look bad, then you don't do it, even if they give you money. What's important is that what you did is of good quality and is used by the people.

I also learned that if in case I get into a lawsuit, I should always pay close attention to the lawyers. That's a mistake that Newmark did that he somehow taught us to leap on. We should also always go full-time on something if we want to pursue it, because if we want something to work as best as it can, we should put our heart and souls into it. That's something that I learned from the story as well.

One of the things that Newmark has said in his story for a number of times is his 'moral compass'. He reminded me through his story that we should always know the difference of right and wrong, never step on others and always keep right. I always thought of this as something to apply in life, in general, but in his story I learned that in the business world, this should be practiced more even, since it is known that in the corporate world, there are more temptations and threats. It is also for good relationship with employees, to support what one founder once said – business partners are like couples that are married. They have to understand each other and have a good relationship so the business they created would flourish.

What I also liked about him was his ideas, such as flagging - that differentiated them from others. That's also another thing that I learned – you should always have something that the others don't – the "edge" that would make you known.

I also liked that part when he said that he was always very committed, stubborn and persistent. Those are three things that make a start-up successful, combined with stunning ideas. I also liked that he was very practical and careful in terms of money that he didn't try venture capitalism, although it came to him at very tempting times.

From the part of the story where a broker in craigslist was abusing the site, I liked that the said broker changed when he was being punished by Newmark. Instead of leaving,

he changed for the better, because it is very true that you just leave, you'll just start right from the start and fall in the exact same place. Lastly, from him I learned to trust my instincts – after all, they're there for a reason.

CASE STUDY # 19: Caterina Fake, Cofounder, Flickr

The article sparked my interest simply because if there are two features of the computer that I love, those are social networking and PC games. When I first read Game Neverending, I remembered that a cousin of mine who used to play this game a couple of years ago. It was his favorite PC game. That time, I think he was just helping me make my own Neopets account. When Game Neverending was shut down, I remember my cousin being devastated. When the other PC games came out though, he returned to his old, happy self, and when he grew up, he vowed that he would work in a company that makes PC games someday. He fulfilled that promise, being part of the team that made Counter Strike.

Game Neverending, the less successful creation of Fake, Butterfield and Classon, was actually a big thing already, considering that it initiated most of the kids' interests on PC games back then. What more could Flickr's success be?

I was touched and amused, first and foremost, at the fact that Fake and her colleague, Butterfield, was actually her husband. That justified something that a founder once said – "Business partnerships are like marriages. The people involved in it should have the same understanding, a healthy relationship and same mindset on where your business should be heading." Well, in this case, the fact became to be too literal. From the last case studies I've done, it was always shown that friends can always make start-ups and it's actually a good thing since you have a good relationship with each other, but in this story, I learned that married couples can make start-ups too – and maybe it's even better, since they know each other very well and compliment each other's talents. That's how Fake and Butterfield worked, and honestly, I found that to be a good idea.

The story also justified what other start-up storied always come up with. The first idea is always not "it". The first idea we have is always transformed into another, a better one, and that is the one that blooms into success. I also learned that experiences in starting a start-up is very much essential. Creativity is always the key to success.

From their story, I was very much astonished by the timing of it all. When Flickr was taken full-time, the digital imaging revolution came of age, as well as the social networks, like Friendster, MySpace and Multiply. Digital photography, the cheaper and more accessible type of photography was coming of age; sooner or later, everybody had a digital camera. Cellphones even have cameras themselves as well, so that cameras are always within reach whenever you feel like taking a photo. Flickr was there to support all these uprisings, and soon enough Flickr was on the road for being something.

One of the things that Fake said that I loved was "Constraints inspire creativity." That could not be more that the truth, because it is true that in fact, when you're given a limit, you think outside the box to maximize the area you're only allowed to blend into. Therefore if there are limitations that seem as challenges, you should never take them as obstacles. As they say, in every cloud, there is a silver lining. This is even how they got to iterate and innovate so fast, and soon enough be bought by Yahoo itself.

I also learned and liked the fact that they were very optimistic. That's something that any business should always possess, especially if you have strong belief in your product. They grew slowly – but the important thing is that they were growing. They looked at all the possible angles there could be, that's something I learned, too. We shouldn't always just cross out ideas just yet, because we should always be open-minded.

Like Newmark, what I liked about Fake was that she didn't go to a VC even if the situation called for one. She was very practical in terms of dealing with money, especially since money makes the business world spin, right? They chose to grow organically, without stepping on others or rushing decisions, rather than expand rapidly. I also liked their idea of tagging, wherein you just type a keyword and pictures related to that keyword would show up.

I could simply imagine a system without that – it would be messy and hard to operate. Photographs are stagnant memories that I think are very precious. Flickr provided a home for these photographs, and became a showcase of each individual's creativity. It was a creative and wise idea. Even if it was hard for them to give up Game Neverending, they still chose to do so to make Flickr the best.

Lastly, the article comments on the gender issue, especially in the corporate world where men are known as sharks. Women are underestimated, and I think that it should even be a challenge for women in the business world to prove men wrong. Women are even more responsible and passionate in what they do; that makes them as equal with men's business-oriented mind setting as well. I guess this just goes to show the drama in the corporate world – I just hope that someday, a woman would step on the shoes of Bill Gates and make something that would finally equate the level of thinking of knowledge and competence of men and women.

CASE STUDY # 20: Brewster Kahle, Founder, WAIS, Internet Archive, Alexa Internet

Of all the other start-up stories I have read in my Systems Analysis class, it was my very first time to read about someone who took up 2 lines in the title spot, because he was

able to found 3 successful companies. The introduction already gave me an idea on how wonderfully brilliant Kahle's mind must have been, for being able to achieve what he has done.

First and foremost, what I liked about Kahle's story was that his goals were for the broadening of the Internet, for it to reach greater heights. Kahle must have contributed massively in making Internet what it is today. Like Newmark, he had good intentions, and he was also given the gift of knowing or having the instinct of what to focus on. Indeed, he trusted his gut and ended up reaching his dreams.

Kahle was able to give a lot of lessons on his story. The first one, which he repeated a lot of times, was to "do your homework before you are spending your own money". This goes to show on how practical and careful he was when it came to handling money. I honestly think that his advice was very important, considering that money is what makes the business world spin. Also, in every step, we should always be cautious and wary, especially when it comes to handling money. Also, I learned from him that environment of a business contributes a lot to how successful it maybe, because if you want to have that "edge" that others do not have, you have to think outside the box.

I like the part where Kahle shares that they created a position called VP of Reality, for projects that have good ideas that sometimes pass by because they are not acted upon. It was very creative and wise of him and his team. Also, it was in Kahle's story that I learned that having money isn't always a good thing – you can be detached with people that are going to pay you in the future. It was an advantage Kahle had, with his last company, though. It was a project that had a project team in each of the four companies that shared it, and he was the one to run it. It was also from Kahle that I learned that we should start a business with a happy environment, so whatever the job they're doing, the employees are working together and not complaining. I also liked the fact that they were looking at the future. That, I believe, is a very risqué thing to do, especially that at their time, they didn't know what lied ahead. Still, it was wise of them, because they knew and were open at the fact that change is inevitable and innovation is always a must.

I also liked the part where he was a dreamer – he wanted to build an industry, not just a company. After all, why not think big? Also, be in a setting that has people who need you and understand you – something that Bill Dunn, one of Kahle's mentors, said. I'd also just like to compliment Kahle for thinking of an edge they had – freeware and shareware. They started that trend, and with that they were known. They were also very wise to make a version that was free, and a version that was for-pay. I also got the point of view from Kahle that the Internet is a distribution system where you give something away and sell it.

Although Kahle and his team faced a lot of problems – imagine, triple of what other founders have experienced, considering Kahle had 3 start-ups. At first, he funded himself, and it even came to a point where he got broke. Still, with a good ambition in his heart, determination, perseverance and strong faith in his idea, he was able to flourish it, in time.

Kahle also reminded me to pick the right partner who compliments you, who fills the things you can't do, and someone who has the same mindset as you have.

I also learned that you can also learn a lot from clients, especially if your clients are businessmen as well, because you have the same attitude and way of thinking. Also, they understand the fact that innovation is only achievable by change. Also, never make too many leaps at once. Take your time and trust your instincts, and remember to always calculate all your moves, especially when it comes to money. I was also reminded on how being the founder of the company puts you in a very hard position where it's all your responsibility and you never blame others. You have to make it financially stable, but a fun environment to work on as well. When it comes to competitors, give them something that's crazy enough to even work. Show that anything is possible.

From Kahle, I also learned that sometimes, it takes a lot of time until you can finally be successful. You just have to wait and believe, improve on what can be further improved and try to always be the best. Never quit. Lastly, you can always pick a big project, something that you can work on for a long time - because if you don't, then you get your money – but you run out of ideas. Money, after all, isn't everything. Just make sure that your business has a quality product that's different from others, and in time, money will flow.

CASE STUDY # 21: Charles Geschke, Cofounder, Adobe Systems

If asked, the first thing that comes into my mind when I hear the word "Adobe" is creativity. Of course, I'm talking about Adobe Photoshop. Before I read this case study, I didn't know that Adobe actually started with a language that allows computers to communicate with any kind of printer, called Interpress, and through a series of events, Adobe came to create the desktop publishing industry to finally create Photoshop, Acrobat and other applications that are all seemingly popular today. That taught me, however, that good ideas can hatch into another.

When Geschke created Interpress, he had an interface similar to Microsoft Word. It was developed by Charles Simonyi, the person who came to Microsoft to build their famous Office line. That was new information for me, again, and also it came to prove just how good the foundation of Interpress was. It was first offered to Xerox, simply because Xerox was where Geschke was working at those times. Xerox was impressed with Geschke's idea. They saw that Interpress can change the way an office works. With this, Geschke started a new laboratory where he focused on graphics and printing technologies. He hired a chief scientist, John Warnock, who had the same interests, same goals and same attitude towards business. Also, both of them are good and they complement each other's skills - Geschke was a genius in programming, while Warnock was a manager at heart. Still, a mistake that Xerox had back then, was that it would take them 7 years to bring Interpress out. It was a clear faux pas for Xerox, because if you have an idea, something that you know that the A Systems Analysis and Design Reader

future will be needing, then you shouldn't wait for that future to come – when it doesn't need your product anymore, because there are others that have come out already. When you have a good idea, something that as good as Geschke's, then there's no reason to be slow, right? I agree with Geschke when he wished that Xerox wasn't making the same kinds of mistakes before today. So that's when Geschke and Warnock decided to go independent – something that I learned from them. I admire them for stepping up. They approached Bill Hambrecht, he loved the idea and supported it – but he hired a consultant for them first. That was a very wise move for Hambrecht, as he knows that guidance is needed to keep Geschke and Warnock in the right path. He also helped them make a business plan. From this part of the story, I learned that if you know that you're destined for something big, and then go for it; if you have a good idea that you think is worth it, then go full-time on it, because if you want to make things happen, action is needed.

I smiled when I read that they decided to name their company Adobe spontaneously. A company's name is pretty vital, of course, considering the fact that someday, it can be a household name. Understandably, Geschke's parents didn't like his plan, because he already had a great job at Xerox. Still, when you know, you know. Geschke knows that he had chances of failing as well, but when you fail, you learn, and avoid making the same mistakes, right? It was a risk he had to take. After all, life would be senseless without risks. They could pull you down big time, or lift you up to the heavens. Still, if you have a calculated risk, then there's no reason not to go for it.

Companies went to him and tried to buy Adobe. When Apple went to him, he agreed to license Adobe to him – he didn't like to be bought. It was wise for him to do that, knowing of course that Adobe hasn't reached its full potential yet. The case study couldn't help but pass by Steve Jobs, and how he still took Interpress, even if the costs are high. He took a risk because he knew that Interpress would give them the edge over IBM. That's what made Jobs become what he is today. Good thing, John Scull came along and created desktop publishing. He combined three companies to do this – Apple, Aldus and Adobe. He definitely wanted it to be big, and he was successful, considering how desktop publishing is today. He put on scalable fonts in PostScript, a predecessor to Interpress, and made sure that the fonts had different typefaces and sizes. It was the edge that they offered, something that others don't have. This puts to use the skills and backgrounds Geschke and his team had. PostScript offered a higher level of programming where what you wanted to the outcome would be is possible. This was when other companies tried to buy them as well.

Another thing I have learned is that a company can't run just one product – at least you have to have upgrades. Like I said, ideas sprout and when they do, take them. Competitors can crush you; it doesn't necessarily mean that once you're on top, you can't fall down again. Just be wise, spread out and have back-up plans. I also learned in this case study that you can check what you need, because others may be needing them as well. It was until the Knoll brothers came that Adobe Photoshop came to being. They built a package that can modify and enhance pictures, and 2 or 3 years before the trend of editing pictures grew, there was Adobe Photoshop – waiting for the kill, letting people trust their software because they have been there for a long time. Geschke said, and I quote: "Shoot where the

duck is going to be, not where the duck is." This means that you can't just be focused and goal-oriented on the enhancements needed in what's in today, because the clock ticks every second, and before you know it, what you were spending sleepless nights for has already been outdated. It was also wise of them to market their ideas to the community they knew would understand them. When Jobs left Apple, Jean-Louis Gassee made a huge mistake of letting Adobe go to others. Adobe then went to Microsoft and IBM, and became platform-neutral, so they were flexible to people. That was good for them, but it was bad for Apple, because Adobe used to be their "edge". When Apple left them, because they figured that they can clone Adobe, Adobe was able to counter-attack it inexpensively – that showed how wise they are, truly. Still, Apple came back to them, simply because Adobe had created too many of what they are and had already been popular that letting them go would be a stupid move.

Lastly, what I liked about them is the satisfaction they get when they make an impact. This shows how pure their intentions are. Also, they've taught me that creating a bond of trust and concern between the company and the customers is the most important thing. Give employees a happy environment. If they work hard, give them the benefits that they deserve. If you want to start something, make sure that you're passionate about it. Invest for the future.

CASE STUDY # 22: Ann Winblad, Cofounder, Open systems, Hummer Winblad

Ann Winblad always had the sense of responsibility and drive to be successful someday in her; it was something she acquired with the constraint of having a tight budget as a family. She was exceptional at school – being one of the top SAT scorers, she didn't even have to take pre-requisites. She grabbed the opportunity and ended up with double majors in Mathematics and Business Administration, and also took a few classes that made her seem all-around – Computer Science and even acting. From reading this part of the case study, it made me realize that studying hard in college and having the pure desire to learn and grow can really take you somewhere. This inspired me to be the best I can be, especially now that I'm still in college. If Ann Winblad could do it, why can't we all do it as well? She started to show potential as a young student - that was very impressive of her, considering that she was mature enough to know that college is a very important factor in one's career.

It also struck me how unfair the gender issue is in the business world. It proved to be a challenge for me, as well, that you have to show others how competent and committed you truly are so that they'd treat you fairly. You have to be the underdog. I was also pretty impressed when I learned that Winblad got her masters degree at night and Saturdays while she was working at the Federal Reserve Bank – that would have been very hard to do; it was a phenomenal achievement for Winblad. With this, she knew that she was meant for

something more. She quit the bank and thought that she start a company with 3 other guys from Federal Reserve. From her story, I learned to be adaptable to the environment I live in. Once you feel that you want to achieve something, especially if you're still young, then you should go for it, or else the moment would just pass you by. There maybe risks, but you have to think of them versus just taking the next hill. These are some of the things that I quote from Winblad that have touched me. Also, entrepreneurs should have the courage to do the job, the skill of assessing situations, interacting with others and strategizing.

Also, the fact that Winblad had borrowed \$500 from his brother in high school and found ways to cover their financial needs to make their company shows just how determined Winblad and her team are to make it. I liked the fact that she didn't go to any venture capitalist, and wanted to make sure that she owed no one anything. It was wise of her, since most VCs, according to the other case studies I've read, cost a lot of pain in the end, and could even end up blackmailing you. I also learned from this case study that we should never underestimate a project. We should look at how we manage a project, the people in it and the time we spend with it. In no time, they were speeding to success, having a good, steady foundation.

I was impressed with their courage when she once asked CADO computer guys to invest \$10000. It was scary because there's the chance they can fail, but another lesson for me, I quote their CEO, George Ryan, with this statement: "If you wanna run with the big dogs, you gotta learn how to lift your leg." You have to tell them what you're in for, why you need their help and be confident about it because if you want to be big, you have to act big. It wasn't a surprise to learn that she was able to get \$120000 from them. I also learned that if you make something work, you have to do it for yourself. If you really believe in your product, and you know that you can make it work, there's not reason to quit. She had obstacles, but she also was given a sign – during a vacation she had, she found out her apartment had burned into flames, except for their computers and software. After this phenomenon, they started to be more professional. Soon, they moved to real office. Like I said, if you want to be big, you have to act big as well.

Although her parents thought that she was crazy to leave Federal Reserve Bank to start a company, she still did it. The most important thing in life is that you're doing something that you like, or else you would be doing something else and not giving your 100% in it. Also, it's very much normal to have mistakes, especially in a group where no one is trying to compete with you.

There were times that they were having obstacles are hard times when they went to Vegas and had their signage shattered. They didn't have mentors to look up to or to give them advice in the first place, they were all beginners. One thing she stressed was that you have to optimize your time, and know how to use it in a wise manner.

Lastly, I was impressed with a wise move Winblad had made. Since she was in the business in 30 years, she decided to take these experiences and make the best of them. She wanted to teach, not tell. She wanted to guide other companies to become successful. Still the

most important thing is the intellectual capital. It is what makes your company grow, because financially a company can work with limited budget. Intellectually though, all resources must be maximized. Also, know what your job is, know what difference it has with others. I quote her in this: "Think like a big dog and figure out how to find leverage and get there." This is also like what I have said earlier already, being big requires acting big. You have to have a strategy, a technique to reach the top.

CASE STUDY # 23: David Heinemeier Hansson, Partner, 37signals

It seems that Heinemeier Hansson was able to help a lot in making 37signals big. 37signals was supposed to be a web design shop, but because of Basecamp, an online project management tool, 37signals became a product company. It was kind of serendipity, how Heinemeier Hansson created Basecamp. They were seeing how unorganized the way they were planning a project. They seemed unprofessional, and Heinemeier Hansson noticed how blogging can help make planning a project a little more organized. Instead of going with the project that they were trying hard to make, they went with developing a way on how to make project management more professional, less costly and effective. This tells me that in making a product, you have to look into the needs of people. Why not look at your needs first? They can be others' needs as well. They were able to make something from the constraints that they had – it was something they treasured, while others hated their constraints. After all, these limitations spark creativity, right? Heinemeier Hansson said himself – without these constraints, they could not have made Basecamp at all.

They started by refining a few things, like project weblog, milestones tracking, file and to-do list sharing. They were wise enough to be a project management tool, for the general user, not just for a specified business. It was for made for all. This was where I learned that you should always maximize the customer quantity. That was admittedly a very wise move for them. They started to offer Basecamp free, and if you want to upgrade then you have to pay a little. The maximum upgrade is worth \$99. This service helps to earn the trust of the users, because since Basecamp is first offered as free, it means that they are open enough to let people use it to see how good of a product it really is. They were also very wise to put Basecamp in their blog before it even came out, giving the people a sneak preview of what it can offer. Soon enough, Basecamp became a hit. Once, they thought that they were facing a dilemma that they even pushed the opening date because of an issue – the bank didn't want them to take yearly payments. It was actually a good thing because they were able to ask for a small value monthly, but all in all, the change made them get twice of what they originally wanted.

Another thing is that I learned that you should always be aware of all the things happening around your company. With this, you'll now what tools are useless, or what tools need to be upgraded. With this, Heinemeier Hansson started Ruby on Rails – something that

I have heard of, a lot of times before, even from our professor, Sir Pajo. Because of another constraint – they didn't want more programmers, they were able to start this. It was successful because it was focused on being productive and work with constraints. Heinemeier Hansson was even that flexible enough to make Basecamp work as he makes Ruby on Rails. That was an amazing example of power multi-tasking. I also liked their technique wherein they send updates on the downloaded program to let people see and know that their product is alive – even if they only got the free version. After Basecamp was released, they simply polished Ruby on Rails. They made a strategy for Ruby on Rails that's different from others – they weren't focused on having more lines of software, the important thing for them is that the lines the have has more value. Also, what's important is that you have both framework development and product development with a strong vision – a line that Heinemeier Hansson said himself.

Also, why not make things more compact? If you can make something big a little smaller, saving money and time, not affecting the quality – why not do it? It doesn't necessarily mean that complexity is better. Simplicity has great power, never undermine that. You can still make an impact; you can still make a difference with constraints. Make the best of them – make the best of all your resources. Be practical.

CASE STUDY # 24: Philip Greenspun, Cofounder, Arsdigita

It was pretty obvious from Greenspun's background that he was destined to build something that was going to be a big deal someday. Imagine, at his early age, when most of the teenagers were only thinking about less important things – this was understandable, because they weren't expected to be open-minded, mature or career oriented – Greenspun already had a knack for connecting people through the internet. He was wise enough to think of the future, and he knew that this was going to be a trend someday, that he decided to take action and build something to bridge people of different places together, even with different computer systems. What he thought of was a solution to a problem a lot were facing back then, especially that not all have same kinds of computer systems. Although some had told Greenspun how crazy his idea was, he still went through with it anyway, and he even left MIT to do this. That was how determined Greenspun is that his idea was brilliant. It was proven to be true.

It started as he wrote a book, Travels with Samantha – Samantha, being his laptop. People had lots of questions about the photography in his book. He was fed up with all the repeating questions, so he decided to make an online community in which the questions the people asked him were easily viewed by all. Instead of frequently answering the same questions, Greenspun put all his answers in the web, and it even got a appoint where others were answering the questions for him. He then realized that this was an opportunity for him. After this, he gave away his software, and in return, people loved it. It was like SAP – a

toolkit for building accounting systems, but it was for an online community. Even up to now, I hear of SAP's success rates, and I can definitely imagine the impact of this on the people. When they were growing, they decided to rent a house and turn it into an office. His friend, Elsa Dorfman, was the owner of the house. After that, I could see how Greenspun became successful – he did what the customer really wanted. Most of the other programmers don't do what was asked of them by the customers. The programmers would just decide on their own, what the application they built should look like or do. Yet, with Greenspun, I learned that whatever the customer wants, make sure that it's what they get, no matter how silly their request may be, because it is only with this that the yget satisfied with the work we've done. Also, another thing I've learned from them is to deliver on time. In short, whenever you make something for the customers, make sure that it's what they want on the time that they need it.

With Greenspun's technique to success, it wasn't really shocking that the word came out on ArsDigita's success. Edward Tufte was one of the people who put ArsDigita in the map through one of his lectures. According to the net, Tufte is considered as the "da Vinci of data". This must mean that getting a complement from him was a huge deal. One of the biggest turning points for them was getting Levi Strauss as a customer. This is where I learned that sometimes, getting a non-IT company is actually a big benefit, because if they were to work for IBM or Microsoft, then they would have wanted to buy whatever they have made. It was a big turning point for them because through Levi's, they were able to get the money they needed to make more. Another turning point for them was when Greenspun was able to publish Database Backed Web Sites. He was able to put this on his site for free, and having a hard copy for it made their product more credible. Through tutorial publications, books and lectures, they were able to build ArsDigita the way it was. It was their form of marketing and sales. That was a very wise thing to do, considering that making the customer feel that the product you're offering them is safe to use and effective is one of the most important things that we should know, because gaining their trust is a factor in any business' success.

What made ArsDigita different from all the others was the fact that they developed and released their software from running real-world systems. That made their products more realistic to use, and it also gives the people more reason to trust ArsDigita. Their products have ample features and are sure to perform quite nicely, and most of all, they weren't that expensive. Their products were simple and easy to use with a clear-cut interface. Also, another thing I've learned is that while some simply interview people and ask them questions on what improvements they need, and later on enhance them, ArsDigita saw the complaints about their products through e-mail. With this, the time consumed in interviewing people becomes minimized, and the people who send complaints should be satisfied with the requests or suggestions that they said were granted. This creates a bond between the company and their patrons. ArsDigita was proven to work faster and more efficiently than others, that's why it was able to reach such great heights.

I also learned that one of the hardest things to do in a company is to hire people. ArsDigita's plan was to grow their employees and hone them into better individuals.

They would develop the skill they had and as they grow, the company shall grow as well. That was an advantageous plan, because it wasn't just for the company's betterment, but also for the people working for them. That's another factor to remember – make your employees love their job. It was very hard for Greenspun to run a company, as I've read, but thankfully, he ran ArsDigita quite smoothly. Still, there were problems that arose. The sad thing about all of this is that in one decision, the company fell down. In their ambition to hire the best of the best, they took money from venture capitalists, even though they really didn't need to. They hired a new CEO with this, because the VC said so. When they got a call from the bank saying that they were starting to run out of money, it was the point where Greenspun realized that he was aspiring to move too fast. Growth should not be hurried. Competition is also supposed to intimidate you, but don't even let them get to your head.

I was able to learn a lot from this case study. In all good decisions you make, you can trip on a random one, and therefore you should always be careful in making up your mind. Lastly, think twice on dealing with venture capitalists. Don't be scared to grow, but grow in a moderate pace. Don't be too greedy.

CASE STUDY # 25: Joel Spolsky, Cofounder, Fog Creek Software

It was very much interesting that Joel Spolsky and Michael Pryor wanted to start a business out of a start-up business that inspired them to do things on their own. Philip Greenspun was not only able to make ArsDigita a big success, but he was also able to spark ideas and aspiration in the hearts of many, including Spolsky and Pryor. These two wanted to reach the success ArsDigita once did, and straighten out a few mistakes ArsDigita made along the way. Up to now, they are still undeniably flourishing in the corporate world.

Spolsky made it clear in the first part that having a co-founder is a big benefit in having a start-up, because like any other family, one parent cannot easily handle all of its children, especially that, metaphorically speaking, the children are the subordinates under the company heads. They hired consulting clients, which was a wise move for them. It was a realistic step for them, as that they were aware that as newbies, they should be open to get all the help they can get. At first, they were in a dry spell, that they didn't have many clients. It was an inevitable moment, because all businesses go through this. When they created FogBuz, an internal-tracking bug application, soon enough, they were starting to sell. I learned from this part that FogBuz wasn't Spolsky and Pryor's first idea, they also thought of CityDesk and Tintin. Anyway, after FogBuz was released, they were able to earn \$5000-\$10000 a month with this.

After this they finally shipped CityDesk, a product they have thought of earlier but decided that FogBuz be the first product that they make. They also started a fair system, wherein to take their product more seriously and on a more professional level, they should pay more for it. It was one of their major turning points. Although there were times where

they had a hard time to continue their business, they never thought of closing or quitting, because they wanted to continue what they started. However unclear their future was with Fog Creek, their belief in their business never faded. What's weird in their business is that they treasure hackers, because these hackers have the ability to do what they do. They patterned this from ArsDigita, except ArsDigita hire those who graduated in other universities. That made them unique in a better way, where more people appreciate them. Slowly, they grew into a software company, with a consulting agency. Still, they never left the culture of programmers. Still, despite the fact that they patterned their success with ArsDigita's, they still had problems in marketing and sales. They didn't understand marketing so they didn't really thought that it was that important, and were confused about this that they made several mistakes on this topic. An example is that they chased a lot of marketing ideas, when the most important thing and form of marketing is simply just improving your product. That was the biggest mistake that they made. That was something I learned to avoid. Another things is that to talk to customers and find out their needs, because if you want to be successful, the people who patronize your product will do that for you. Another thing is that he was wise enough not to make investments. It was a good thing because the money they had was all going on their product to make it better. It was a wise and smooth decision. A lot of people think that this is not possible, but the truth is, it's very possible. Just create a blog and have people read it, you can have a small form of marketing. Also he never worried about competitors. That was something he learned from ArsDigita, and something he applied in his business. A man's failure is another man's success.

CASE STUDY # 26: James Hong, Cofounder, Hot or Not

Reading this case study made me think about the success that websites like Friendster, Multiply, MySpace or Facebook has reached. When I think about the serendipity of James Hong and Jim Young's achievements, I am left amazed by the fact that probably without their idea of Hot or Not, these sites I have mentioned earlier would not even exist today.

The fact that James and Jim created this site just for fun adds another proof to the advice I got from the other case studies I've already read - when looking for ideas for your start-up, seek what your needs are first, because most likely, others are in need of what you lack as well. Seeing that their father, a man aged 60 years old already, still found Hot or Not fun and entertaining as well, was already a big clue that Jim and James have hit the jackpot. At their first day, imagine them having 40,000? That's big, especially that James only sent a few e-mails to people he knew. Later on, the word came out. As they say, no man is an island; people all cling to their social needs, no matter how busy they might be.

One of the things that mesmerize me is the fact that they didn't plan for anything to happen. Instead, when they released the site, because it was such a good idea, people came flocking to them – and before they knew it, they were thinking how to handle the business. Their goal was just to get things going. They didn't think about what else they could A Systems Analysis and Design Reader 58

improve, they were just brainstorming on how to continue what they've started. After all, like I said, they didn't have a plan. They just wanted to survive and make the best out of what they did. It wasn't such a shocker that they were big, because they were the first to ever think of an online picture rating website. It was something new and fresh to the people, something that caught their attention.

Well, according to the story, the first 8 days were the most panicked-filled moments of their lives. James had only slept for 8 hours in the whole 8 days. Their main problem was the bandwidth drawn by pictures. Since they were getting registered to by the minute, Hot or Not was starting to get slow because too many people posted their pictures on the web site. It was when James thought of a plan, that they just redirect people to upload their pictures on Yahoo and paste the URL on their page. They lost people when they did this, but at least they were able to solve the problem. After all, they weren't charging people for anything when they register, so it was tough for them to cash out money to crack the bandwidth problem. It was a good idea, in fairness to Hong, especially since him and Young were pressured to get an answer ASAP at that time.

The next thing they handled was looking into managed hosts. They talked to Rackspace, and thankfully enough, Rackspace agreed to scale Hot or Not. Hong said so himself – they owe a lot to Rackspace for making them bigger. After this they had another problem with people who kept on posting inappropriate pictures that were considered as pornography. Because of this, not only is their reputation being mocked, but also the hosts who back out of their site. They needed to solve this problem as soon as they can, or else their hosts would disappear one by one. DoubleClick told them that they were guilty until proven innocent, so that they can get advertising from them. The first thing they did to solve this problem was to let the people click a link under the inapt picture if the picture was considered as pornography for them. If it got too many clicks, the picture would automatically get removed. Still, this wasn't enough to put a stop on the whole issue, so Hong and Young installed a new feature on Hot or Not – the Meet system, where the people involved can actually interact as they are both active – meaning, the people who post pornographic pictures can no longer take advantage.

The brilliant thing about the Meet system is that they started to make money out of their hard work with this. Although they didn't make a lot, it wasn't necessarily their goal to make money out of this system. Still, they solved the pornography issue and got money for it. It was hitting 2 birds with 1 stone. After a while, instead of making redirecting people to upload pictures on Yahoo, they got people to go to Ofoto, considering Ofoto as a new business partner. This all came to them without warning – they just found a way to survive. Their hard work paid off though, as we can all see, it, as Hong has not only attracted business partners, girls, but also the success he has been destined to have.

What I liked a lot in this story was that Hong and Young played it fairly. Although Hong was technically the CEO, the title never stood against them. Their goal is just to make Hot or Not better every time. They never took money from VCs, which is a pretty wise thing to do, considering that most VCs are sharks. They are an independent company. Although

Lycos made a deal with them, amounting to S5 million, they declined the offer, believing that Lycos would ruin their concept of Hot or Not. What's amazing enough is that they fell in love with their product, that they only want what's the best for it, even if they were offered such a huge amount of money. Needless to say, they got into Wall Street Journal, People magazine, Time, etc. Before the case study ended, Hong shared some words of wisdom. He said that we should all learn to get to the next level. Obstacles for us are the liabilities we face. When we start something, we must make sure that we are ready to put ourselves in the position of being entrepreneurs by having ideas and trying things, and never quitting even when we fail. Nothing goes according to plan. Well, actually, in Hong and Young's case, they didn't even plan for anything. It just happened for them and they were tough enough to go with the waves that came and tried to take the best out of them. You never know unless you give it a try. Do start-ups while you can, while you're young. There's no right path. Spend very little money as possible. Entrepreneurship is never easy. It's not always about the money. It's the fact that you made an impact that's more important. Those are some of the pieces I was able to pick up from Hong and Young's story of success, and I'll be sure to apply them starting now.

CASE STUDY # 27: James Currier, Founder, Tickle

One of the many things my mother taught me was to always follow my bliss. James Currier's mother must have believed in this saying as well – as her son was able to follow his passion for digital media and social sciences with Tickle. Tickle is an online testing center that gives their client quizzes that can help the client to know more about himself, or the people around him. This started with a Myers-Briggs corporate personality test he had to take when he was still in business school. An idea suddenly popped in his head – with all the commotion about this test that has been going on for weeks, why not do something about it? He asked advice from his family then. He always had a belief in the internet that it was definitely meant for something more than the superficial things. Since he had a past career as a venture capitalist, Currier already knows the success rates of internet sites. He then decided to continue on with Tickle – a website that can show you more of yourself, how you are as a person, the things that we sometimes forget we are, in an economical and easy way. It was like talking to a shrink online.

At first, Currier was anxious about Tickle. He wanted to ask people about it, so that he can correct mistakes he didn't notice, and also didn't want to spread his idea too much that it might get stolen from him. He actually even became paranoid because since he believed in his idea so much, he was scared that it was an obviously good idea, that if it took him too much time to act on it, others might take advantage. Still, to his surprise, the response he got was all too negative. See, at this time, people were still into Broadcast.com, iVillage.com and Women.com, that they didn't like the fresh ideas Tickle offered. They were stuck with what's in today, at this current point, unlike Currier who was brave enough to look into the future. As he already quoted, very few people are gifted to have the capacity to

see what the future holds. Good thing that Currier knew that, so he still continued on Tickle, no matter what others say.

The challenging part, according to him, is that when starting, what you do always seems "not enough" for others to support you. All you have to do is to get more confidence points – go to the next level, move to the next step. When people see you grow and evolve into greater heights, it is when more will turn to you and understand what you are trying to say. It's important to remember that when people want you, it is when other opportunities open up for you. A significant point for Tickle would be the launch of one of their first tests – one that caught the attention of the mass – the dog test. Currier decided that Tickle should be fun and outgoing, so he thought of adding a "what breed of dog are you" quiz. Soon enough, a million people were swarming to Tickle, people were going crazy for it. When the VC people saw this, they wanted to get in.

Another good thing was that Currier already had an immediate background in venture capitalism, so he had more or less an idea to keep it going. Although he had problems with hiring people, it just taught me a lesson that it's one of the toughest things to do, especially that you have to be extra careful in picking the people that you have to trust with what you have worked hard for to build. Since Currier did not have much experience with this, he had a few bumps along the road, but he learned and got over those bumps. There was also a time, that because of their undeniable success, that iVillage started to copy them. They were posted as a threat to them at first, but iVillage didn't have what Currier did – his wanting to communicate with the people he serves and the people under him. He wants to make sure that people in Tickle understand each other and has a good working place. He knew now his standards in hiring people. They had to be nice, communicative, smart and capable.

Currier was also able to share how painful it was though, to start something new. Sometimes he would just wake up in the middle of the night, thinking about all the money he's invested on Tickle. It was truly a grueling time, but in the end, the fruits of his labor were well given. Start-ups, no matter how tempting they sound sometimes, especially after reading a lot of them – can cause a lot of problems, so before you enter one, you must be aware of the consequences that face you. Imagine, even Currier himself almost didn't marry his wife because of this. Still, as I've said, follow your bliss – if you think you can do it, then don't let anything stop you from doing so.

When Currier sold Tickle to Monster for \$100 million, he left a legacy in Monster. But he had to leave, because Currier was destined not just to create Tickle for mankind. Currier is a starter, and probably, he always will be. After the interview he had with Livingston, imagine him even wanting to start another company – Ooga Labs. It's his passion – to build something that's worth something big someday.

CASE STUDY # 28: Stephen Kaufer, Cofounder, Trip Advisor

When I was still in high school, I remember that my friends and I wanted to go out on a vacation during summer as a celebration of the ending of our high school lives. We found a resort – San Roque Beach Resort – in the back of a local magazine, and we fell in love with the pictures of the room, the ambiance, the resort itself in general. Another thing we loved in the catalog was the motto below it – "Quality time in a tight budget." We decided to travel all the way to Talisay City to experience first hand what the resort was offering. Turns out, the magazine posted pictures of San Roque Beach Resort's most expensive rooms, which was way too overpriced for us. The food was terrible; the ventilation was poor. Needless to say, we were very disappointed. I know it's silly or too dramatic to say this, but we felt betrayed by the magazine.

Before reading this case study, I never knew about TripAdvisor, no offense to Kaufer. I've been busy with studies, and let me just say, that learning about this site is one of the things I know that would be useful someday. Getting clean, unbiased information about a place – if it's worth going to – may sound like a small thing or something that won't make big money, but sometimes, it's the small things that matter, right? Seeing the success TripAdvisor has gone through, I know that anyone who has read this study or at least knows what TripAdvisor is would agree with me.

The idea hatched into his mind with the help of Kaufer's wife. In almost having a bad experience in checking in a resort, with the help of the internet, Kaufer and his wife were able to escape. With their own personal experience, they thought of finding a solution to this problem – by making a website that gives neutral and fair opinions on tourist spots. Still, since Kaufer had a job back then, it took them a year to go through with this idea. Kaufer was then introduced by a friend to another cofounder, Langley Steinart, who gave Kaufer an overview and helped him in the business, marketing, business development and financing side of things. It was said in the latter part of the case study that without Steinart, TripAdvisor would have never been possible. It just goes to show that there cannot be only one founder; one mind cannot figure out all the loopholes in a start-up. This was one thing I learned. Now, continuing with the story, they started with meeting in the office of Kaufer's late wife's software office. It provided them free use of PC and space for a while, but later on, as a part of growing, they moved to a bigger place. They worked very hard to make TripAdvisor different from others – they made this site have a smaller, but more complete database. They may not have all of the information, but they do have a link for it.

One of the most interesting things that I've read in this case study though, is that it actually took them quite a while to be successful. They did banner ads at first, and this lead them to the gold mine – approaching Expedia and making a name for themselves. They told Expedia to try them out for a month – since they weren't popular back then – and continue with them if they liked their service. After earning with Expedia, TripAdvisor spread to hotels.com, Travelocity, Orbitz and others as well. They used the same technique with others. This was a big turning point for them, considering that earning money was a big problem for them before.

Another thing I liked about Kaufer's ways was his thriftiness. He was said to spend his money carefully, and only to things he knows would be good for TripAdvisor. One of these things is hiring quality employees. With Kaufer I realized that having a small team is better than having a big team, because what matters most is the competence of the employees you hire. You may have 100 employees in your company, but only 20% of them work efficiently. Having 10 employees who are very much dedicated in their work is definitely a lot better that the first option, right?

It was mentioned in the case study that marketing and business development was the biggest obstacle for them. The product wasn't really much of a problem, because to Kaufer's surprise, many people actually wanted to share their insights with the places they've gone to. It's like a blog that's more inclined with travel. Now, moving on, since TripAdvisor's success, they've decided to keep their company at first, because like any other founder, once you've spilled all your guts for something, you wouldn't want to let it go just yet. One tip Kaufer shared in the story was to keep pushing a company, especially at times when you feel that it's going down. Believe in what you started, and keep pushing for it to be something.

They've had problems with TripAdvisor, though – of course. Some hotel managers don't like what people write, but since TripAdvisor has legal issues, hotel managers cannot do anything about it. They simply block obscene languages and make sure that what they've written is nothing inappropriate. Yet, if the hotel managers want to give their side out, they can give a reply to a criticism. That's how fair TripAdvisor is.]

In the end, Kaufer gave out some advices for start-ups. First, the founding team is very important and critical in the start-up itself. They are the ones holding the idea. Even if the said idea is brilliant, and the people who are behind it have no unity in direction, then it is all useless. Another thing is that things don't really go according to plan. Like in what Kaufer had experienced – he never thought of going through TripAdvisor as their major business. Do what the people want.

After all, it's them who decide on your success. Lastly, be a risk-taker! Check the downside scenarios first, also the effect on time and opportunity cost. If it's a good deal, go with it, because if you don't move, you'll stay stagnant on one place and be left behind. Hire the people you know and feel has the passion and determination to really make the best he/she can to help make your business run.

CASE STUDY # 29: Blake Ross, Creator, Firefox

I remember the first time I used Mozilla Firefox. It was years ago; our computer just got reformatted and this computer technician tells us that he installed "Mozilla Firefox", this

new application that's better than Internet Explorer. I was irritated that this guy changed the norm, although I was kind of having small problems with Internet Explorer. I didn't really jive on those of course, considering that surfing the internet was enough for me. Nevertheless, I was the first one to try Firefox on our computer. The moment is still clear to my head, up to this very day, when I first double clicked this small Firefox icon, and said to myself – "Hmm. It's not bad. It's kind of like IE." Now, due to curiosity, I clicked this "Add Tab" button, and was instantly mesmerized. It was like having 2 open applications in one compact window. Shortly, because of more other details I do not need to elaborate, I fell in love with Firefox and never wanted to part with it. It was definitely user friendly, I rarely encounter times when the application would hang or freeze, and whenever it does, it'll always give me an option to restore the websites I visited or not.

I'm saying this now so you can picture the excitement in my eyes as I have read that the case study I'm going to read about is the success Firefox had, and how it got there. I learned about a guy named Blake Ross and his friend, Dave Hyatt. These two started creating Firefox as a side project because they were working at Mozilla that time to fix Netscape – which was pretty much hopeless, so Firefox became an outlet of all the frustrations they had with Netscape. Ross was just 14 at that time – I was very shocked, or for a better term - impressed with that information. Anyway, Netscape was too messy. It had search buttons everywhere, annoying advertisements, etc. Although Internet Explorer was the most popular web browser at that time, Firefox never copied anything from it. Firefox was simply created with Netscape's many flaws. In short, Ross and his friends started Making Firefox something by learning from the past mistakes Netscape had, and since they believed on the brilliance of this idea, they went through with Firefox, which was first named as Pheonix. Due to legal concerns, it was changed to Firebird, and because of another legal matter, they decided to keep the word "fire". Lo and behold, Firefox was born.

Ross mentioned that the Firefox team wasn't permanent – it was always changing. They have had a lot of developers work for them. This just goes to show how honest Ross is for admitting that, and also how tough Firefox really is because it went through the hands and skills of several programmers and developers back then. When Netscape decided to let Mozilla free, it seemed like it was scary for Mozilla because Netscape was the name for them, Mozilla was just an open source software. Still, Ross and his colleagues weren't affected, as they knew that they had a good idea and they shouldn't be intimidated. Firefox was very different from the other start-ups. Money wasn't a problem for them, they didn't even worry about the competitors. That's something very likeable in them. They just wanted to deliver and the only thing that worries them is the number of users they have. Still, their coming was perfectly timed, as the Internet Explorer team broke up and Netscape was pretty much gone. Firefox was a breathe of fresh air for those people who was getting tired of Internet Explorer and Netscape.

It is also said in the case study that Ross started another start-up of his own again, called Parakey. The product is apparently given very high expectations, knowing that Firefox is it's sibling. It's something good, technically, but it sure does give a lot of pressure to Ross. Still, since he's got the blood of a true entrepreneur, there shouldn't be anything

wrong. Ross also mentioned Microsoft being power hungry and driven by competition. I am not in a place to judge the Microsoft, but it seems as it what Ross is saying is actually true. If it is, however, that's a wrong thing to set focus on, especially that the most important this should always be pleasing the customers. They didn't really start making IE 7 when Mozilla Firefox came and conquered. If you ask me, Firefox is still better. IE 7 tends to hang when tabs are made. Also, IE's interface is still better in my personal opinion. What I like about Firefox it that they are very transparent with people. That's what separates them from others. They listened to the opinions of others as well and was very open-minded.

Firefox was spread through word-of-mouth marketing. That was a very wise choice indeed, considering that it didn't cost them much and was a very down-to-earth and from-the-heart approach to the people. They started to market the bloggers, and the bloggers spread the word, then to the media, and soon, to the world. It was creative and wise of them to do that. People even donated for them to be advertised in New York Times. They had copycats sites, but they didn't mind them and instead, they just focused on getting better. With this, more and more people were attracted to Firefox. Another tidbit is that they didn't really care much for losing – it's a natural thing, to fail – and had more free and risky decisions. Although Firefox was put down by people before – people who were higher than Ross and his friends at that time, they didn't mind them. Instead, he considered this as a challenge, and an inspiration as well.

Still, Ross didn't forget to mention that having a start-up means having a non-stop state of stress. This gives a conclusion on how hard this must be, but if you love what you're doing, this shouldn't stop you, right? Advices that Ross gave: first, have communication with the people who are to use your product. Second, learn to build the right buzz in the right way. You may be a beginner in start-ups and you don't know the norms yet, and time for other things may be hard for you, but hard work and perseverance bear the fruit to success, as always.

CASE STUDY # 30: Mena Trott, Cofounder, Six Apart

Mena and Ben found each other in senior year of high school, fell in love, and became inseparable ever since. Who would have guessed that would also found a company as they matured? Mena was a blogger. Both didn't have many friends, and because Mena wanted to meet new people, she started a blog called Dollarshort. It was popular at that time, and because the blog closed down, Mena and Ben decided to make a blogging tool that worked better than what Mena had been using. They just did it for fun, they never imagined that they would grow to be this successful. With each alteration and modification, they began to work more seriously. They had a naïve start, knowing of course that they were at a very young age at that time. Soon enough they released Movable Type, and when they had their first batch of customers, this is when they knew that they had to expand this. They had

a preview of success with their first batch of customers. Needless to say, they were very wise as to make a move when there is a clear-cut sign that what they're about to embark on is going to be successful. Also, Mena mentioned that doing something they loved made the whole process even more interesting to them. That's something I learned from them. Do something you like or enjoy, or else it won't stay for long with you. After Movable Type's success, they challenged themselves in making something harder. This is where TypePad comes into the picture. Now, although Movable Type caused them a lot of stress and fights, because they clearly had the blood of entrepreneurs flowing in their veins, it didn't stop them from making another one, an even harder version of Movable Type. This shows that if you love something, even if it causes you pain or stress, you still won't give up on it.

Mena didn't fail to mention that they had gone through a lot with this. They never really had friends before, because the Web was spending a lot of their time that they weren't even able to socialize anymore. Working at home was very stressful for them because it felt like they never really left work. This is another lesson I learned – the environment makes a big difference. They had several fights, most of them even public – and as husband and wife, it was damaging their relationship. It took a toll on their lives. There was a lot of pressure with the launching; they took a lot of risks. Still, they believed in their product and worked very hard to make it the best, so they went with it anyway.

Another thing about their story is that they never accepted VC money. It was very wise of them to do that, as that most VCs are sharks. Also, they were beginners – they made very smart and careful steps into success. A user of the product, Joi, contacted them and asked questions about their business, and soon enough gave them angel money. Joi first gave them a chance to have dinner with them in Japan, and when Mena and Ben accepted, they got an offer to make their product even better. They just put their heads into it and became successful. Also, they were very careful in spending money, that they were very concerned where each penny goes. They bought servers to make TypePad run faster. They finally have five people in payroll. They were very wise and practical when it comes to handling money. Also, they even made their company as LLC to make a statement that they didn't accept investments. They were very clever indeed. Barak, their CEO and the guy who challenged them to make a better version of what they were doing, is a big part of the success they have today. Barak drove them to be better. Also, Barak allowed them to make mistakes, as mistakes are the most natural thing in life an if you personally experience their effects, you know by heart what went wrong.

They had a huge customer base, which others did not have. Although they had a small office, it was never a bad thing for them. One move they made wrong is making things themselves. They didn't hire anyone at first because they were such perfectionists and they didn't want to spend. They also skimped on hardware at times. In short, the moral of these mistakes is to spend money in the right things, and know the difference with a necessity and things that you just want.

CASE STUDY # 31: Bob Davis, Founder, Lycos

It all started with a man named Michael Mauldin, who they all called Fuzzy back then. He started this all as a research project in Carnegie Mellon University which he did in an office at the research lab. Of course, he knew that he was on to something. He wasn't just the type of person who would think of it in a corporate manner; he didn't have the blood of an entrepreneur. So, he just worked with CMU's Tech Transfer Office to sell what he made. A man named Dan Nova of CMGI (a VC) saw its potential. Dave Wetherell, the founder of CMGI, had a vision in mind of the success this could lead to. He was impressively very smart, a man who was gifted to foresee how thriving a product can get. Soon, Wetherell acquired 80% of the company while 10% was given to Fuzzy and the last 10% was given to Carnegie Mellon. Davis got into the story because he was Nova's friend. He was talking to him one day, and Nova picked him to be the company's CEO. The only thing they had at the very beginning was the technology, but everything else was still a mystery to them.

Davis was a very determined CEO. On the 1st month, he built a team and core people. They were still skeptical on what they wanted to do. They then decided to start the "Technomedia" phase of their company, but it wasn't a good term. They weren't really all about the technology, so they became purely a media company. It was very difficult for Davis, a first time CEO, to manage Lycos because at that time, they segregated in two places – Boston and Pittsburgh. They had no choice because Fuzzy and Carnegie Mellon were located in Pittsburgh. It was hard for Davis to handle a team in who different places, but still, he did his best. He had problems on hiring people, firing people, understanding their business, getting and servicing customers, and many more. It's normal to have these problems, considering that they were just a start-up and Davis was just a beginner. Still, he was obviously able to do a great job in his field. I think it was brave of Davis to do so. He took several risks and didn't look back.

Slowly, Lycos began to evolve. Even though Nova criticized Lycos' capability to be big someday, Davis didn't seem to mind. He still went on. From this part, I learned not to be pessimistic. After all, we don't know what lies ahead of us, so it's wrong to judge the future. There's nothing wrong if we dream big and act on it. He shared that being Lycos' CEO wasn't an easy job at all, because problems keep on coming. You have to adjust and learn to be patient. Another issue they faced was staffing. Hiring people is a tough job, because these people you bring into the company will either make or break you. Even if one employee fails, others are affected. This was all happening before the Internet was popular. They took a risk – a big one – knew that they were onto something. People back then were mocking the Internet's capability to be big someday, and we all know now just how huge the Internet has become. This taught me to look carefully at the hidden potentials a product or service might have.

Although they didn't start out as the best, or the leading product, they were still able to catch up. They promoted Lycos, sought PR and advertised their way into the hearts of the people. They spread the word on what they can do. Soon, they were growing big. They categorized their three customers: their employees, the users, and their advertisers. They

prioritized the users, of course, as that they are the ones that decide how successful they were going to be. Their first advertisers, though, was AT&T. What they promoted was more attention to the consumer, rather to the technology itself. They might not be the web site with the best user interface, but they made sure that the service they provided was very effective. Yahoo was the competitor that struck them the most. All they did was advertise, get partnerships, promote Lycos – they continued on marketing themselves. Soon enough, they had a joint venture with Bertelsmann, the largest media company in Europe. They had launched Lycos Europe, which was specifically Lycos translated in languages Europeans can understand. Needless to say, Lycos was focused on being seen by the people and getting noticed. They even had Lycos commercials, a Lycos race car – the works. One of their problems, though, was copying in the industry. They were, for example, the first website to offer image search, and we all know that almost all search engines offer this service today.

Lycos, like any other start-up, had faced a lot of challenges and hardships before being known and reaching success. Davis had shared that it's not about celebrating triumphs, but handling the problems that come to your way. They even had a saying – "Let up, you lose". They were training their employees and reminding themselves that quitting is not an answer. It's a battle against yourself – all you have to have is perseverance. They also were focused on hiring good people; after all, people are the foundations of the company. They also focused on developing customer relationships.

What I noticed about their case study is that they had one paragraph where the word "focus" was redundantly stated. It only shows us one thing – they had the drive to be on top. They even got to a point where they beat Yahoo as number one destination online. They were acquired by Terra for \$5.4 billion. Imagine, they all started from scratch. Their success is well-deserved and very much impressive, isn't it so? \odot

<u>CASE STUDY # 32: Ron Gruner, Cofounder, Alliant Computer Systems;</u> <u>Founder, Shareholder.Com</u>

Gruner's passion is attached with computer design. At his first job in Data General, he worked as an engineer and a manager. Data General was more on entrepreneurship rather than technology. From this, you could already see why Gruner left Data General. He had learned so much from this company, though. He left to start Alliant Computer Systems. They wanted this company to build high-performance computer systems for Digital's Vax line of machines, which was valued at half a million dollars. One thing Gruner shared was that if you wanted to have money, you should be able to provide a sense of exclusivity to people, and a sense of urgency, so that people can decide to go with what you're offering. Carl Carmen, a former boss, liked them to angel investors. With this, they started their business plan on commercializing parallel processing technology. They approached a VC, Kleiner Perkins, and told them to give their company 6 months to come up with a business

plan. After 4 months, they pitched the idea to them, and they instantly liked it. They approached another VC, after that – Hambrecht & Quist, and Venrock.

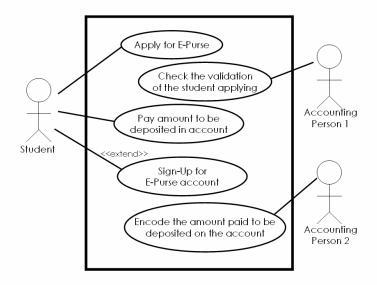
They needed three years to grow. They got financing, hired their staff, designed the PC, developed the software needed, marketed their products and the works. In their first year, they got \$5 million. The next year, they got \$30 million. Impressively enough, their success was the fruit of the hard work they've done. Tom Perkins, one of their VCs, was a mentor to Gruner. This showed me that the people we work with can also touch our lives not only professionally, but also emotionally. With all their success, they finally reached appoint where they had half a billion dollars. Sadly, Alliant Computer Systems didn't see it coming. They hit a wall. They missed a whole generation. Missing on something you think is not important may actually be of huge importance someday. They didn't take care of their workstations. They didn't spend money on trying to update and improve them. They were missing out on very vital stuff, that they finally fell. The venture capitalists they partnered with were all pressuring them – as much as they should do, after all, it's their role – and soon they were all panicking. VCs are very impatient people, especially during tough situations. That's why they should be avoided. This is what I've learned from Gruner. They were all having misfits and misunderstanding, suddenly their direction and minds were all over the place. Gruner had to leave because they weren't agreeing anymore. Gruner saw the problems, but his colleagues refused to see his point. He left Alliant Computer Systems, and a year after that, Alliant Computer Systems was bankrupted.

Altough people think it's a sad thing, Gruner's experience with Alliant Computer Systems was priceless. Now, he knew what went wrong. He now knew how to handle things and which to prioritize. He vowed to himself that he would focus on what the customers wanted rather than to the factors that he thought would lead to that. He would start a company with low capital, and he would always be in control. So he started shareholder.com. He started from scratch, once again. He didn't know anybody from the industry. He hired consultants at first, which was a wise move. He had educated himself to the kind of business

He's marketing by telling companies how large they can save with shareholder.com. This was very effective. Also, he had no capital costs. They became profitable in no time. Learning from Alliant's mistakes, now he knew what to do. He hired the right people and spent money on practical things. He practiced all the things he learned. Nonetheless, Gruner has become successful up to this day. When he was asked what advice he would give to people wanting to start a start-up, all he said was that the key to success is one word, to sum it all up – persistence. I think that needs no other explanation. \odot

Use Cases

USE-CASE NARRATIVE for APPLYING FOR AN E-PURSE ACCOUNT



Identification Summary

Title: Applying for an E-Purse Account

Summary: This use-case gives an overview on the procedures a student has to go through in order to acquire an E-Purse Account.

Actors: Student, Accounting Person 1, Accounting Person 2

Creation Date: June 18, 2008 Date of Update: June 18, 2008

Version: 1.1 Person in Charge: Vanessa Claudja P. Carlos

Flow of Events

Pre- Conditions:

- 1. The student must be enrolled in DLS-CSB for the current term.
- 2. The student must have at least P50 to put in his/her account.
- 3. The student must

Main Success Scenario:

- 1. The student pays the amount he/she wishes to deposit in his/her E-Purse account.
- 2. The accounting person finds the student's valid records proving that the student is enrolled in DLS-CSB for the current term.
- 3. The student signs-up and enters his/her chosen PIN number in his/her account.

Alternative Sequences:

- 1. Insufficient PIN typed by the student (temporary)
 - > The computer informs the student that the PIN he/she provided needs to have at least 6 numeric entries.
- 2. The accounting person types the wrong ID number to locate the student's files (temporary)

> The accounting person will encode the correct ID number.

Error Sequence:

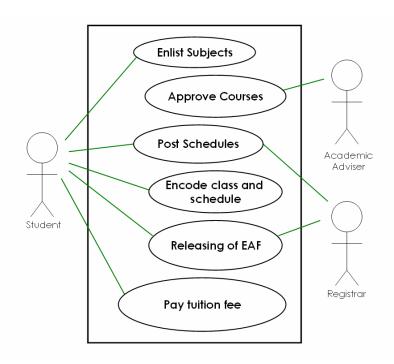
- E1. The student does not have at least P50 to put in his/her account. Use-case fails.
- E2. The student is not enrolled for the current term in DLS-CSB. Usecase fails.

E3.

Post Conditions:

- 1. The student can pay his/her debts in the LRC through the money in his/her E-Purse account.
- 2. The student can pay for the foods he/she ordered in the AKIC Cafeteria through his/her E-Purse Account.

USE-CASE NARRATIVE for ENROLLING IN DLS-CSB



Identification Summary

Title: Enrollment in DLS-CSB

Summary: This use-case gives an overview on the procedures a student must go through enrolling in De La Salle – College of Saint Benilde.

Actors: Student, Registrar, Academic Adviser

Creation Date: June 4, 2008 Date of Update: June 5, 2008

Flow of Events

Pre- Conditions:

Version: 1.1

- 1. The student must be enrolled in CSB.
- 2. The student should not have any pending fees.
- 3. The student's CSB Infonet account must be activated.

Main Success Scenario:

- 1. The student pays transactions at the accounting office.
- 2. The student enlists and chooses his or her schedules
- 3. The student gets his/her EAF form.

Alternative Sequences:

- $1. \ Wrong \ username \ or \ password \ logging \ on \ to \ CSB \ Infonet \ Account$
 - > The computer informs that the student entered an invalid password and or username
- 2. The student comes on a Sunday to enroll.
 - >The student will return once DLS-CSB is open.

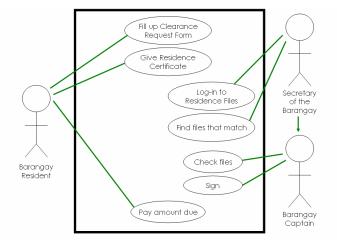
Error Sequence:

- E1. The student has not paid the fees needed. Use-case fails.
- E2. DLS-CSB has permanently closed down. Use-case fails.

Post Conditions:

- 1. The student can study and stay in CSB
- 2. The student can make use all the facilities or services given by the school

USE-CASE NARRATIVE for GETTING A BARANGAY CLEARANCE



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Identification Summary

Title: Getting a Barangay Clearance

Summary: This use-case gives an overview on the procedures a resident of any

Barangay has to go through in getting a Barangay Clearance.

Actors: Barangay Resident, Secretary of the Barangay, Barangay Captain

Creation Date: June 9, 2008 Date of Update: June 9, 2008

Version: 1.1 Person in Charge: Vanessa Claudja P. Carlos

Flow of Events

Pre-Conditions:

- 1. The resident must have any of these three (3) uses for the requested for a Barangay Clearance:
 - (1) In applying for a job;
 - (2) Getting a business permit;
 - (3) For academic purposes
- 2. The resident must be a legal resident of the said Barangay.
- 3. The resident must have a Residence Certificate

Main Success Scenario:

- 1. The resident fills up the Clearance Request Form.
- 2. The secretary finds the match of the given Residence Certificate.
- 3. The resident pays for the Barangay Clearance.

Alternative Sequences:

- 1. Wrong username or password in logging in to the Residence Files (temporary)
 - > The computer informs the secretary that either the password or the username is incorrect until he/she types the right one.
- 2. The resident comes to the Barangay Hall during the secretary's lunch break (temporary)
 - > The resident can wait until the secretary comes back.

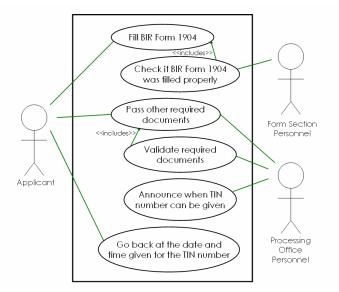
Error Sequence:

- E1. The resident does not have a Residence Certificate. Use-case fails.
- E2. There is no match with the Residence Certificate the resident gave to the secretary. Use-case fails.
- E3. The purpose of why the Barangay Clearance is needed does not fall into the category given.

Post Conditions:

- 1. The resident can use his/her Barangay Clearance in enrolling, getting a job or getting a business permit.
- 2. The newly acquired Barangay Clearance, if not used within 3 months, will officially be declared null or void.

USE-CASE NARRATIVE for GETTING A TIN NUMBER



Identification Summary

Title: Getting a TIN Number

Summary: This use-case gives an overview on the procedures an applicant has to go through in getting a TIN number.

Actors: Applicant, Form Section Personnel, Processing Office Personnel Creation Date: July 10, 2008 Date of Update: July 10, 2008

Version: 1.1 Person in Charge: Vanessa Claudja P. Carlos

Flow of Events

Pre-Conditions:

- 1. The applicant must have a copy of his/her birth certificate, barangay clearance and passport.
- 2. The applicant must not have a previous TIN number, since he/she passed the BIR Form 1904 Application for Registration of One Time Taxpayer And Persons Registering Under EO 98 (securing a TIN to be able to transact with any government office).
- 3. The applicant must come on any given weekday, because BIR office is closed during weekends.

Main Success Scenario:

- 1. The applicant submits his/her required documents.
- 2. Documents are proven to be valid.
- 3. The TIN number is announced when it will be given.

Alternative Sequences:

- 1. The applicant comes during the personnel's' lunch break (temporary) $\,$
 - > The applicant comes back when the lunch break is over.
- 2. The applicant runs out of application forms (temporary)

> The applicant can print an application form from the internet.

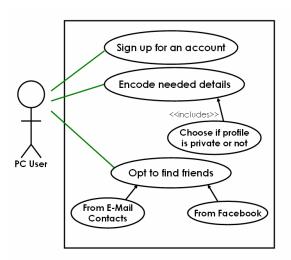
Error Sequence:

- E1. The applicant comes during holidays and BIR is closed. Use-case fails.
- E2. The applicant submits a barangay clearance which issued above 3 months, meaning it is invalid. Use-case fails.

Post Conditions:

- 1. The applicant can use his/her TIN number for his/her proper identification for tax purposes.
- 2. The applicant can use his/her TIN number to be able to transact with any government office, e.g. LTO, NBI, DFA, etc.

USE-CASE NARRATIVE for GETTING AN ACCOUNT IN WWW.FRIENDFEED.COM



Identification Summary

Title: Getting an Account in www.friendfeed.com

Summary: This use-case gives an overview on the procedures the user of the PC has to go through in getting an account in www.friendfeed.com.

Actors: PC User

Creation Date: August 6, 2008 Date of Update: August 6, 2008

Version: 1.1 Person in Charge: Vanessa Claudja P. Carlos

Flow of Events

Pre- Conditions:

- 1. The PC user must have internet connection.
- 2. The PC he/she is using must have a keyboard or an on-screen keyboard at least.
- 3. The PC User must have an existing e-mail address.

Main Success Scenario:

- 1. The PC User signs up for an account.
- 2. The PC User encodes the details needed.
- 3. The PC User opts to find friends from either his/her Facebook or contacts in e-mail.

Alternative Sequences:

- 1. The PC User types the wrong in username (temporary)
 - > The PC User goes back and types another username.
- 2. The PC User types the wrong e-mail address (temporary)
 - > The PC User goes back and types another e-mail address.
- 3 The PC User wants to change his/her decision to keep his/her profile private (temporary)
 - > The PC User goes back and removes the check from the checkbox to keep his/her account private.

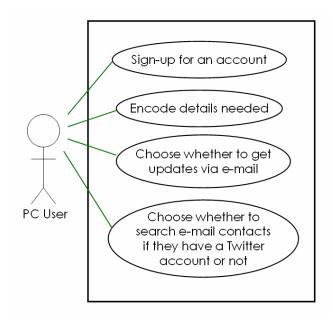
Error Sequence:

- E1. FriendFeed shuts down. Use case fails.
- E2. The electricity is out where the PC User is signing up. Use case fails.
- E3. The internet company where the PC User is registered shuts down. Use case fails.

Post Conditions:

- 1. The PC User can connect to all the updates his friends has in the sites that his friend has registered.
- 2. The PC User can update his friends on all the updates and changes he has made in other websites he has registered.
- 3. The PC User can invite more of his/her friends to join his network.

USE-CASE NARRATIVE for GETTING AN ACCOUNT IN WWW.TWITTER.COM



Identification Summary

Title: Getting an Account in www.twitter.com

Summary: This use-case gives an overview on the procedures the user of the PC has to go through in getting an account in www.twitter.com.

Actors: PC User

Creation Date: July 30, 2008 Date of Update: July 30, 2008

Version: 1.1 Person in Charge: Vanessa Claudja P. Carlos

Flow of Events

Pre- Conditions:

- 1. The PC user must have internet connection.
- 2. The PC he/she is using must have a keyboard or an on-screen keyboard at least.
- 3. The PC User must have an existing e-mail address.

Main Success Scenario:

- 1. The PC User signs up for an account.
- 2. The PC User encodes the details needed.
- 3. The PC User chooses to search his/her e-mail for his/her contacts who also have a Twitter account.

Alternative Sequences:

- 1. The PC User types the wrong configuration keys given (temporary)
 - > The PC User is given another chance to types another configuration key.

- 2. The PC User cannot see the configuration key (temporary)
 - > The PC User opts to hear the configuration keys instead.
- 3. Twitter closes temporarily for maintenance (temporary)
 - > The PC User will go back to the web site and sign up in another time.

Error Sequence:

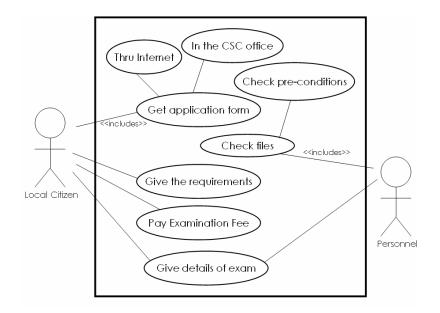
- E1. Twitter shuts down. Use case fails.
- E2. The electricity is out where the PC User is signing up. Use case fails.
- E3. The internet company where the PC User is registered shuts down. Use case fails.

Post Conditions:

- 4. The PC User can connect to his/her friends by knowing what they're up to.
- 5. The PC User can opt to take Twitter to his/her phone.
- 6. The PC User can invite more of his/her friends to join his network.

The PC User can upload his/her own photo to his/her account.

USE-CASE NARRATIVE for GETTING A CIVIL SERVICE ELIGIBILITY EXAM



Identification Summary

Title: Getting a Civil Service Eligibility Exam

Summary: This use-case gives an overview on the procedures a local citizen has to go through in a getting civil service eligibility exam.

Actors: Local Citizen (Applicant), Personnel

Creation Date: June 25, 2008 Date of Update: June 25, 2008

Version: 1.1 Person in Charge: Vanessa Claudja P. Carlos

Flow of Events

Pre-Conditions:

- 1. The Civil Service Commission Office must be open.
- 2. The employees must be available for assistance.
- 3. There must be application forms available. (either through the Internet or in the Civil Service Commission Office itself)
- 4. The applicant must have finished his/her respective college degree.

Main Success Scenario:

- 1. The applicant either prints the application form from the Internet or gets one from the Civil Service Commission Office.
- 2. The applicant pays for the said exam.
- 3. The applicant gets his/her exam date.

Alternative Sequences:

- 1. The applicant is not in favor of the exam date given to him/her. (temporary)
 - > The applicant can ask for another exam schedule.
- 2. The applicant cannot get the application form because the Civil Service Commission Office is too far from where he/she is located. (temporary)
 - > The applicant can get the application form from the Internet, in this site www.csc.gov.ph
- 3. The applicant cannot take the exam since he/she has taken the exam for 4 times (once in 3 months) already. (temporary)
 - > The applicant can take the exam after 2 years.

Error Sequence:

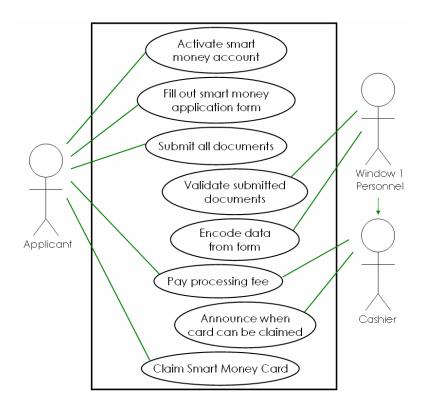
- E1. The applicant does not have sufficient money to pay for the exam (Use case fails)
- E2. The applicant did not meet the required age to take the exam. (Use case fails)

Post Conditions:

1. The applicant takes the exam on the date that he/she is scheduled on.

2. The local citizen can then apply for a job in the government or a any business that is handled by the government after taking the exam.

USE-CASE NARRATIVE for GETTING A SMART MONEY CARD



Identification Summary

Title: Getting a Smart Money Card

Summary: This use-case gives an overview on the procedures an applicant has to go

through in getting a Smart Money Card

Actors: Applicant, Window 1 Personnel, Cashier

Creation Date: July 16, 2008 Date of Update: July 16, 2008

Version: 1.1 Person in Charge: Vanessa Claudja P. Carlos

Flow of Events

Pre- Conditions:

- 1. The applicant must be a Smart subscriber.
- 2. The applicant must be at least 12 years old.
- 3. The applicant must be a resident of the Philippines.
- 4. The applicant must have one valid ID.

Main Success Scenario:

- 1. The applicant activates his/her smart money account.
- 2. The applicant submits all the documents needed.
- 3. The applicant pays the processing fee
- 4. The applicant claims the smart money card.

Alternative Sequences:

- 1. The applicant comes to a closed Smart Wireless Center (temporary)
 - > The applicant comes back another day to finish the process.
- 2. There is no electricity in the Smart Wireless Center (temporary)
 - > The employee in Window 1 manually records the documents. The cashier gives an ordinary OR instead of the OR from a cash register and manually records the payment as well. Both will later record the changes when electricity has restored.

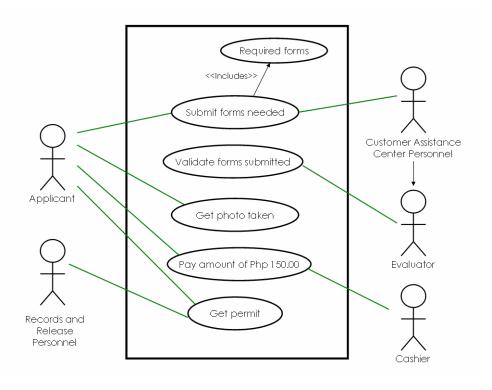
Error Sequence:

- E1. Smart's nation-wide system crashes. Use case fails.
- E2. The applicant cannot activate his/her smart money account. Use case fails.
- E3. Smart cancels their Smart Money service. Use case fails.

Post Conditions:

- 1. The Smart Card user can transfer money to another Smart Money Account.
- 2. The Smart Card user can purchase transactions at MasterCard establishments or any Smart Money accredited merchants.
- 3. The Smart Card user can reload a Buddy or Talk and Text account using his/her mobile phone.
- 4. The Smart Card user can pay bills Smart Gold, Smart Bro, Maynilad, PLDT, Sky Cable, ZpDee.
- 5. The Smart Card user gets free text notification for every transaction.
- 6. The Smart Card user can transfer money from his/her bank account to a Smart Money account via mobile banking.
- 7. The Smart Card user gets discount and privileges at merchant partner establishments.
- 8. The Smart Card user can enjoy Smart Card's seasonal promotions.

USE-CASE NARRATIVE for GETTING a STUDENT DRIVER'S PERMIT



Identification Summary

Title: Getting a Student Driver's Permit

Summary: This use-case gives an overview on the procedures an applicant has to go through in getting a Student Driver's Permit.

Actors: Applicant, Records and Release Personnel, Cashier, Evaluator, Customer Assistance Center Personnel

Creation Date: July 4, 2008 Date of Update: July 4, 2008

Version: 1.1 Person in Charge: Vanessa Claudja P. Carlos

Flow of Events

Pre-Conditions:

- 1. The applicant must at least be in 16 years of age.
- 2. The applicant must have a photocopy of her birth certificate and recent ID picture.
- 3. If the applicant is below 18, he/she must have a Parents' Consent Letter signed by the parents and a photocopy of their ID as well.

Main Success Scenario:

- 1. The applicant passes all the required documents.
- 2. The evaluator validates the forms given.
- 3. Applicant pays Php150.00 as fee.
- 4. The records and release personnel gives student driver's permit.

Alternative Sequences:

- 1. LTO runs out of application forms (temporary)
 - > The applicant can download his/her own application form in the internet.
- 2. The offices are closed temporarily due to lunch break (temporary)
 - > The applicant comes back after the lunch break.

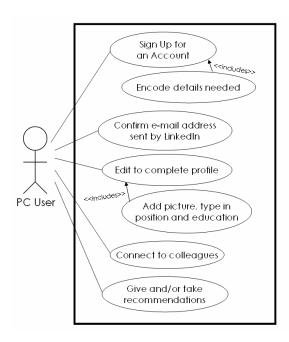
Error Sequence:

- E1. The applicant comes to LTO at 4:00pm. LTO is closed. Use-case fails
- E2. The applicant does not have Php150.00. Use-case fails.

Post Conditions:

- 1. The applicant can now drive as long as he/she is accompanied by a guardian.
- 2. The applicant can now use his/her student permit for identification purposes.

USE-CASE NARRATIVE for GETTING A LINKEDIN ACCOUNT



Identification Summary

Title: Getting a LinkedIn Account

Summary: This use-case gives an overview on the procedures the user of the PC has to go through in getting a LinkedIn account.

Actors: PC User

Creation Date: July 23, 2008 Date of Update: July 24, 2008

Version: 1.1 Person in Charge: Vanessa Claudja P. Carlos

Flow of Events

Pre- Conditions:

- 1. The PC User must have internet connection.
- 2. The PC User must use a PC with a working keyboard.
- 3. The PC User must have a valid job.

Main Success Scenario:

- 1. The PC User confirms the e-mail sent by LinkedIn.
- 2. The PC User edits his/her profile.
- 3. The PC User gives and/or takes recommendations from his/her colleagues.

Alternative Sequences:

- 1. Wrong job information encoded (temporary)
 - > The PC User edits job information.
- 2. Wrong education information encoded (temporary)
 - > The PC User edits the education information.
- 3. Inaccurate recommendation written for someone (temporary)
 - > The PC User edits the recommendation and saves it.

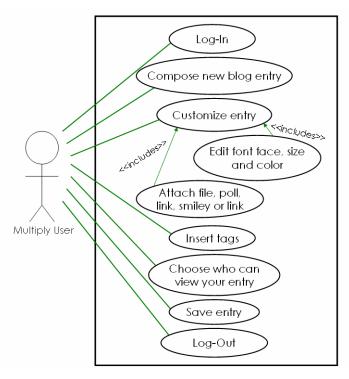
Error Sequence:

- E1. The PC shuts down due to electricity loss. Use case fails.
- E2. The PC hangs without the profile being saved. Use case fails.

Post Conditions:

1. The PC User can get a job through his/her account in LinkedIn. The PC User can connect to other job networks.

USE-CASE NARRATIVE for POSTING A BLOG ENTRY IN WWW.MULTIPLY.COM



Identification Summary

Title: Posting a Blog Entry in http://www.multiply.com

Summary: This use-case gives an overview on the procedures a multiply user goes

through in posting a blog entry in http://www.multiply.com.

Actors: Multiply User

Creation Date: July 14, 2008 Date of Update: July 16, 2008

Version: 1.1 Person in Charge: Vanessa Claudja P. Carlos

Flow of Events

Pre- Conditions:

- 1. The Multiply user must be using a device with internet connection.
- 2. The device being used by the multiply user must have a keyboard or can at least enter letters.
- 3. The Multiply user must have a topic in mind.

Main Success Scenario:

- 1. The Multiply user logs-in.
- 2. The Multiply user composes a new blog entry.
- 3. The Multiply user saves the entry.

Alternative Sequences:

- 1. The Multiply user cannot find the file to be attached in the device used's hard drive (temporary)
 - > Find the file in the internet and link it.
- 2. The Multiply user forgot his/her passpord. (temporary)
 - > The user clicks the "forgot password" button and a new password is automatically sent to the user's e-mail used in Multiply.

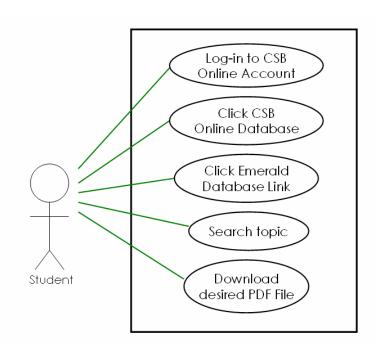
Error Sequence:

- E1. The device used by the Multiply user breaks down. Use case fails.
- E2. The electricity or battery life of the device used by the Multiply user drains. Use case fails.

Post Conditions:

- 1. The posted entry can be viewed by the people the Multiply user chose.
- 2. The posted entry can be commented on by the people the Multiply user chose.
- 3. The Multiply user can choose to edit the entry created.

USE-CASE NARRATIVE for DOWNLOADING A PDF FILE IN DLS-CSB'S EMERALD DATABASE



Identification Summary

Title: Downloading a PDF File in DLS-CSB's Emerald Database

Summary: This use-case gives an overview on the procedures a student of DLS-CSB has to go through in downloading a PDF File in DLS-CSB's Emerald

Database.

Actors: Student

Creation Date: August 12, 2008 Date of Update: August 12, 2008

Version: 1.1 Person in Charge: Vanessa Claudja P. Carlos

Flow of Events

Pre-Conditions:

- 1. The student must be from De La Salle College of Saint Benilde.
- 2. He/she must have an internet connection.
- 3. He/she must have an active infonet account.

Main Success Scenario:

- 1. The student searches the topic needed.
- 2. The student downloads the desired file.

Alternative Sequences:

- 1. Wrong username or password in logging in to CSB's Infonet Account (temporary)
 - > The computer informs the student that either the password or the username is incorrect until he/she types the right one.
- 2. DLS-CSB's site is temporarily down.
 - > The student can return to the site once it is active again.

Error Sequence:

- E1. DLS-CSB cancels the Emerald Database. Use case fails.
- E2. The topic searched is not valid. Use-case fails.
- E3. DLS-CSB's site crashes and will not be retrieved. Use-case fails.

Post Conditions:

- 1. The student can use the PDF file for researching.
- 2. The student can search for more PDF files.

Appendix 1

RCA Reporting

Cause-and-Effect Diagram

A Microsoft PowerPoint Presentation

What is it?

- An analysis tool that provides a systematic way of looking at effects and their respective causes
- ❖ Developed by Dr. Kaoru Ishikawa of Japan in 1943 and is sometimes referred to as an Ishikawa Diagram or a Fishbone Diagram because of its shape

Why implement this?

- ❖ It helps determine the root causes of a problem using a structured approach.
- It encourages group participation and utilizes group knowledge of the process.
- ❖ It uses an orderly, easy-to-read format to diagram cause-and-effect. relationships
- ❖ It indicates possible causes of variation in a process.
- ❖ It increases knowledge of the process by helping everyone to learn more about the factors at work and how they relate.
- ❖ It identifies areas where data should be collected for further study.

STEP 1:

- Decide on the effect to be examined.
- ❖ An effect may be positive (an objective) or negative (a problem), depending upon the issue that is being discussed.

STEP 2:

- ❖ Draw a horizontal arrow pointing to the right. This is the spine.
- ❖ To the right of the arrow, write a brief description of the effect or outcome which results from the process.
- Draw a box around the description of the effect.

STEP 3:

- Establish main causes, or categories, under which other possible causes will be listed.
 - ➤ 3Ms and P Methods, Materials, Machinery, and People
 - ➤ 4Ps Policies, Procedures, People, and Plant
 - Environment

STEP 4:

- ❖ Identify as many factors or causes possible and attach them as sub-branches of the major branches.
- Fill in detail for each cause.

STEP 5:

❖ You can do this by asking a series of WHY questions.

STEP 6:

- It helps identify causes that warrant further investigation.
- ❖ Use a pareto chart to determine the cause to focus on first.
- See the "balance" of your diagram, checking for comparable levels of detail for most of the categories.

ANALYSIS

- The level of detail is well-balanced.
- The causes poor/no training and manual file organization/system are repeated several times.
- These causes stated above are the ones that should be attended to and given action on ASAP.

Slides:



Appendix 2

*Note: The page numbers of the following document has been set to follow the page numbers of this book. The table of contents of the said document has been removed as it may confuse the reader. The footers have also been set to follow the format of the footers of this book.

A Systems Analysis Study on the BUYERS' ACCOUNT AND PROJECT SALES MONITORING SYSTEM of Omico Corporation

Presented to the
Computer Applications Program
School of Management and Information Technology
De La Salle – College of Saint Benilde

In Partial fulfillment of the Requirements of the subject Systems Analysis

Submitted By:
Buyson, Angelica Jean M.
Carlos, Vanessa Claudja P.
Dela Rosa, Jericho Neil E.
Reyes, Nina Tasha A.

Sysanal, O0A August, 2008

Submitted To:
Professor Paul Amerigo Pajo Jr.

I. CHAPTER 1

COMPANY BACKGROUND

Company Name: OMICO CORPORATION

Sector: Mining and Property Holding

Incorporation Date: 30 August 1968

Extension: --

Corporate Life: 50 years

As per AOI:

Number of Directors: 11

Ownership Restrictions: 40%

As per By-Laws:

Stockholders Meeting: May - last Friday

Fiscal Year: 01 January to 31 December

Business Address: Suite 1109, East Tower

PSE Centre, Exchange Road

Ortigas Center, Pasig City 1605

Tel. No/s: 637-6923 to 25

Fax No/s: 637-6920

E-mail Address: omico@i-manila.com.ph

Auditor: R.R. Tan and Associates, CPAs

Transfer Agent: Securities Transfer Services, Inc

COMPANY LOGO



COMPANY HISTORY

BUSINESS PROFILE

Omico Corporation was incorporated in the Philippines and was registered with the Securities and Exchange Commission ("SEC") on August 30, 1968. The Company listed its shares of stock in the Philippine Stock Exchange on May 2, 1969.

The Company's main business activities are mining exploration and property development. The Company is licensed to operate, prospect, mine, and deal with all kinds of ores, metals and minerals. The Company is also engaged in the business of real estate development.

The Company's businesses are organized and managed separately according to the nature of products provided, with each segment representing a strategic business unit that offers different products and serves different markets. The Company's business is segregated into mining exploration and property development.

COMPANY MISSION/ VISION

Omico Corporation aims to improve people's lives by engaging in quality-committed, resource efficient, people friendly and nature sensitive development. By providing innovative enterprise software solutions and services; the company has built a strong following of loyal customers and they have partnered with many of these customers since their original system implementation and provide ongoing support for their operational and strategic business needs. Omico Corporation aims to be a living definition and world-class model of a Total Holistic Development Company.

OMICO CORPORATE VALUES

- Customer Supremacy
- Personnel Fulfillment
- Stockholder Satisfaction

- Cooperation, Concern and Commitment
- Passion for Excellence

PRODUCTS AND SERVICES

- Mining
- Sta. Rosa Homes Project
- Tagaytay Project

NUMBER OF CUSTOMERS: Approximately 1000

NUMBER OF TRANSACTIONS: Approximately 5 to 7 a month

Organizational Chart



Statement of The Problem

Omico Corporation has an ongoing housing project named Sta. Rosa Homes located in Sta. Rosa, Nueva Ecija. The concern of the company is keeping the Sta. Rosa Homes Project sales documentation and monitoring system organized to have an accurate and comprehensive record analysis of the Sta. Rosa Homes project buyers.

The problem is identified as:

- Manual encoding of buyer's information.
- Manual encoding of sales record.
- Possible understatement of billings to client thus resulting in possible lost revenue.

Objectives of The System

This study aims to resolve the problem of the company by providing innovative enterprise software solutions and services. Resolving this problem will be very beneficial to the company, it would mean proper and accurate revenue recognition. Solving the problem at hand will help evaluate the correct profitability of the specific project and to provide automatic computation for issuance of buyer's quotation or computation sheet. Moreover, the objective of this study is to develop a systematized array of data to monitor the accounts of the Sta. Rosa Homes Project Buyers. The Buyers' Account and Project Sales Monitoring System is designed to help the company improve on their business by providing the critical sales and operations planning and execution functionality.

The general features of the system would be as follows:

- Encoding of buyers' detailed information
- Provide automatic computation for issuance of buyer's quotation or computation sheet
- Account master file
 - Encoding of new accounts

- Account monitoring
- Computation of monthly amortization
- Monitoring of payment
- Monitoring of agent's account
 - Computation of agent's commission
- Reports generated
 - Buyer's information sheet
 - Quotation sheet
 - Billing statement
 - Client's ledger
 - Total payments received at any given period

Tangible Benefits:

The proposed system aims to

- Provide an automated array of data to have a fast and accurate way to check buyer's account
- Organize an array of the buyer's account info for the company to easily locate and access the files.
- Provide a clear view of the inventory status.
- Provide the technology required to support their goals and growth.

Intangible Benefits:

The proposed system aims to

- Provide innovative and quality services to create a positive impact to the society.
- Increase visibility, maximize resource utilization, improve operational efficiencies and acquire more profitable clients
- To ensure an effective control in handling the Buyer transactions and its documentation
- The system would store data availability of buyer's account info.
- Provide the company faster availability of buyer's account information.
- Increase work productivity of employees

 Increase accuracy in computing and monitoring the buyer's records.

Improved work process that can in turn improve employee morale

Significance of The Study

One of the hurdles that companies are facing nowadays is keeping their company's system organized, not just to make the flow of work clean, but also to make sure that there wouldn't be unproductive and inept outputs from such disorganized inputted data. Organization makes any business competent and proficient, and it also makes the system work fast to be able to create prompt and effective results, innovations and quality decisions.

This study can help the company Omico reach greater heights by being able to make sure that their clients are more than satisfied with the improved system requirements that Omico would offer. These system requirements will give not only the company a clearer analysis of the Sta. Rosa Homes Project buyers, but will also give the clients themselves a more in-depth view of where their money goes, what's already been done, even the buyers' ledgers and more information. This will not only provide clients an easy access to their accounts, but it will also help the company filter out their system of clients and keep their files organized and updated as well.

Not to mention, this study will also stand as a proof to the company's mission – customer supremacy, which will be proven with the Buyers' Account and Project Sales Monitoring System that would definitely provide the said customers with a feeling of security and comfort, as they can see what they've been paying for; stockholder satisfaction, which will certainly be effective once they see what has already been done and where their money flows; cooperation, concern and commitment, which is will be further shown when the company aims for customer supremacy which, as mentioned, will be proven by this study, and lastly - passion for excellence, which will be supported with the new, systematic and rationalized aspiration for organization and control. The last line in Omico's vision – "We call it responsive and responsible development", will

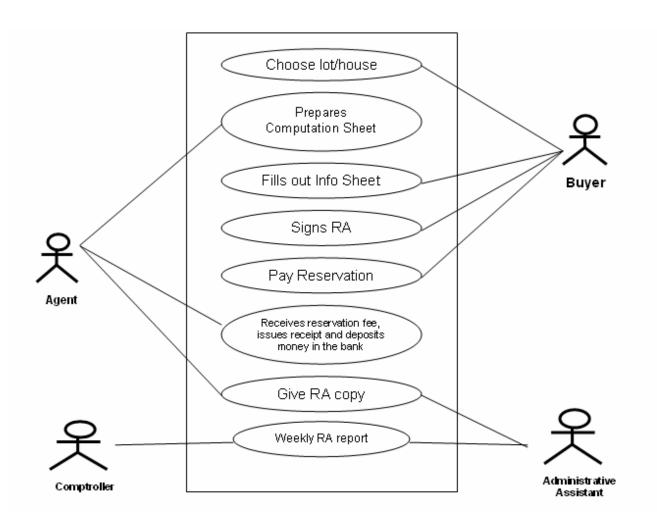
surely be shown in the proposed system because it will prove that Omico is in fact a responsible and reliable company when the direction of where and when the buyer's money goes is shown.

This study, as already stated above, will give the clients, as well as the company control of the flow of the money being given out. It will be cost-effective and will generate more accurate and detailed output as well. This study, if implemented, will also give the people a sense of comfort and self-assurance that they chose the right company, Omico, for unquestionably, the right reasons. The Buyers' Account and Project Sales Monitoring System will be, without a doubt, a huge step for Omico towards innovation and modernization. This will stress on Omico's competence to be the best they can be, their deep commitment to their patrons to finish everything not only in time but also with their pockets taken care of, and compassion towards their clients and their need to be updated and informed of every once in a while with accurate, efficient and effective data.

Scope and Limitation

 Our group limited our research on the ongoing real estate development Project of Omico which is the Sta. Rosa Homes located in Brgy. Lourdes, Sta. Rosa, Nueva Ecija.

II. Chapter 2 Use Case Diagram of Existing System



Identification Summary:

Title: Steps of Reservation Agreements (RA)

Summary: This Use Case diagram shows the process of a buyer on how to buy

a lot/house at Sta. Rosa Homes.

Actors: Buyer, Agent, Administrative Assistant, Comptroller

Creation Date: August 18, 2008 Date of Update: --

Version: 1.1 **Persons in Charge:** Buyson, Carlos, Dela

Rosa, Reyes

Flow of Events:

Preconditions:

- 1.) The Omico office must be open.
- 2.) There must be an employee to serve the buyers.
- 3.) There must be availability of lot/house.
- 4.) There must be available RA forms.
- 5.) The buyer must have sufficient money to pay the amount due.

Main Success Scenario:

- 1) Buyer chooses lot/ house.
- 2) Agent prepares the computation sheet.
- 3) Buyer fills out Buyer Information Sheet (BIS)
- 4) Buyer signs RA form (2 copies)
- 5) Buyer pays P10,000 reservation fee.
- 6) Agent receives full reservation fee, issues Official Receipt and deposits money in the bank.
- 7) Agent forwards copy of RA to Administrative Assistant
- 8) Administrative assistant shall prepare a weekly report on the approved/ disapproved Reservation Agreements and also those recommended for cancellation of RA's and submits to Comptroller.

Alternative Sequence:

- A1: The buyer comes to Omico Office during lunch break (temporary)

 *The buyer can wait or come back when the break is done.
- A2: The buyer has incomplete requirements (temporary)

 *The buyer can come back again to bring the complete files/requirements that are needed.

Error Sequence:

- E1: The buyer has incomplete/invalid requirements. (Use-case fails)
- E2: The applicant doesn't have enough money. (Use-case fails)
- E3: The buyer fails to comply with the deadline for full reservation. (Usecase fails.)

Post Condition:

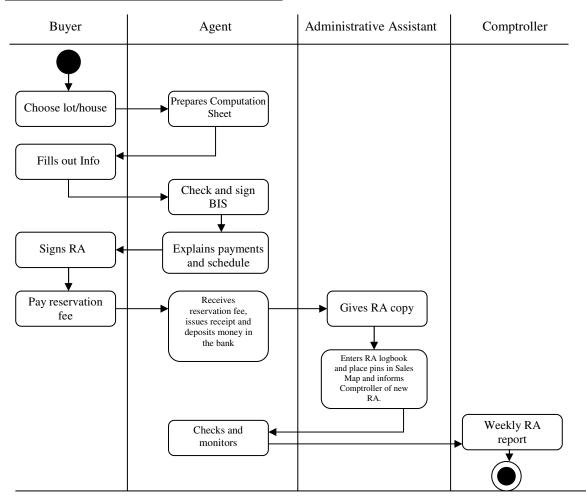
1. The buyer has his/her own lot/house.

- 2. Omico Corporation will have increase in clients.
- 3. Sta. Rosa Homeowners will increase.

Process Walkthrough (Use Case Diagram with pictures)

1) Buyer chooses lot/house. 2) Agent prepares the computation sheet. 3) Buyer fills out Buyer Information Sheet (BIS) 4) Buyer signs RA form (2 copies) 5) Buyer pays reservation fee. 6) Agent receives full reservation fee, issues Official Receipt and deposits money in the bank. 7) Agent forwards copy of RA to Administrative Assistant. 8) Administrative assistant shall prepare a weekly report on the approved/ disapproved Reservation Agreements and also those recommended for cancellation of RA's and submits to Comptroller.

Activity Diagram of the Existing System



Identification Summary:

Title: Steps in processing Reservation Agreements using Buyers' Account and Project Sales Monitoring System.

Summary: This activity diagram shows the process of Reservation Agreements using Buyers' Account and Project Sales Monitoring System

Actors: Buyer, Agent, Administrative Assistant, Comptroller

Creation Date: Aug. 6, 2008 Date of Update: --

Version: 1.1 Person in-charge: Buyson, Carlos, Reyes, Dela Rosa

Flow of Events

Pre-Condition:

- 1. The Omico Office must be open.
- Buyers' Account and Project Sales Monitoring System must be connected to server
- 3. There must be availability of lot/house
- 4. There must be available RA forms
- 5. Buyer must have sufficient money to pay reservation fee.

Main Success Scenario:

- 1) Buyer chooses lot/ house.
- 2) Agent prepares the computation sheet.
- 3) Buyer fills out Buyer Information Sheet (BIS)
- 4) Agent checks and signs BIS.
- 5) Agent gives Computation Sheet to buyer and explains payment schedule and submission deadlines of buyer's documentary requirements.
- 6) Buyer signs RA form (2 copies)
- 7) Buyer pays P10, 000 reservation fee.
- 8) Agent receives full reservation fee, issues Official Receipt and deposits money in the bank.
- 9) Agent forwards copy of RA to Administrative Assistant
- Administrative Assistant enters RA logbook and place pins in Sales
 Map and informs Comptroller of new RA.
- 11) Administrative Assistant checks computation & monitor buyer's payments.
- 12) Administrative assistant shall prepare a weekly report on the approved/ disapproved Reservation Agreements and also those recommended for cancellation of RA's and submits to Comptroller.

Alternative Sequence:

A1: The buyer comes to Omico Office during lunch break (temporary)

*The buyer can wait or come back when the break is done.

A2: The buyer has incomplete requirements (temporary)

*The buyer can come back again to bring the complete files/requirements that are needed.

Error Sequence:

E1: The buyer has incomplete/invalid requirements. (Use-case fails)

E2: The applicant doesn't have enough money. (Use-case fails)

E3: The buyer fails to comply with the deadline for full reservation.

E 3.1: On the 10th day from RA date: prepares Final Notice sent to buyer

E 3.2: On the 25th day from RA date: Agent prepares Notary Cancellation sent to buyer.

E 3.3: On the 30nd day from RA date: employee prepares Cancellation and Re-opening Memo sent to all concerned.

E 3.4: Administrative Assistant removes pin from their maps for cancelled reservations and re-opens unit.

E 3.5: Use case fails.

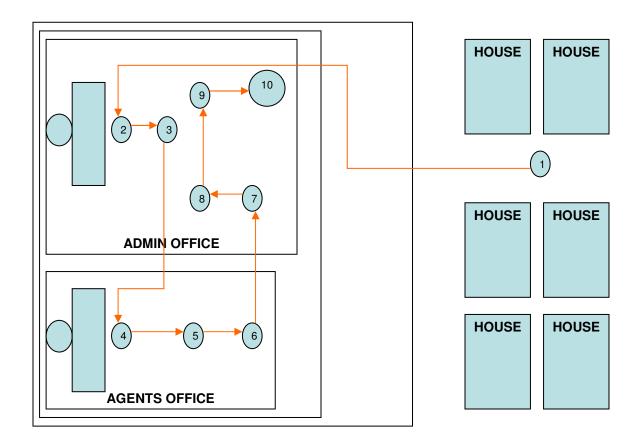
Post Condition:

- 1. The buyer has his/her own lot/house.
- 2. Omico Corporation will have increase in clients.
- 3. Sta. Rosa Homeowners will increase.

PROCESS VS CYCLE TIME

ACTIVITIES	ACTUAL TIME (MINS)	TARGET TIME (MINS)	
1.Choose lot/house	20-30	15	
2. Prepare computation sheet	10	5	
3. Fill out information sheet	15	10	
4. Check and sign BIS	10	5	
5. Explain payment's and schedule	15	10	
6. Signs RA	5	3	
7. Forwards copy to administrative assistant, pay reservation fee.	15	10	
8. Receives reservation fee, issues receipt and deposit money in the bank	20	10	
9. Gives RA copy	5	3	
10. Checks and monitors	*CANNOT BE	*CANNOT BE	
Buyer's payments	CALCULATED	CALCULATED	
	*MONITOR EVERY	*MONITOR EVERY	
	PAYMENT	PAYMENT	

GEOGRAPHICAL FLOWCHART



III. Chapter 3

Table of Recommendations

Problem/s to be Addressed	Recommended Change	Activities Affected by
	Needed to Improve	Changes
> Manual encoding of	> A more systematized and	> Ordinarily after buyer
buyer's information	organized way to compile	signs CRA contract, an
	and encode the buyers'	new activity is added
	information.	wherein the employee
	inomation.	opens Buyers' Account and
		Project Sales Monitoring
		Systems (BAPSMS), which
		will be linked to OMICO's
		Main System (server) and
		the Buyers (thru Internet)
		themselves as well.
> Manual encoding of sales	> A faster, more precise	> From just merely
record	way for a buyer to view	compiling billing statements
	his/her updated billing	thru file folders, a storage
	information via the Internet	database will be added
		where the employee will
		input the buyer's account
		information either thru the
		Internet, for buyers, or
		inside Omico's server, for
		the employees who need
		the information.
> Possible understatement	> A more accurate and	> The process where
of billings to client thus	contact collection of	billings are calculated from
resulting in possible lost	information kept up to date	Omico's point of view will

the second a transaction	be innovated, such that the
has been made	buyers will be able to see
	how each calculation was
	done, when it was done
	exactly, and other relavant
	data which is sure to be
	stored in both Omico's
	servers and the Internet
	which will both be added an
	anti-hacking and anti-virus
	application for security
	purposes.

Benchmarking

One of Omico Corporation's closest direct competitors in Sta. Rosa, Nueva Ecija is Planters DB Properties, Inc. It has been very active in developing communities in Bulacan, Rizal, Batangas, Metro Manila, and of course, Nueva Ecija. Planters DB Properties has reached a wide array of markets through brand names like Milflora Homes and Villas, Primavera Homes and Villas and Paseo de San Roque. The promises Planters DB Properties has given to the people are smart and flexible house designs, excellent amenities, strategic locations, competitive pricing and enduring social values that the average family is known to value. Their mission is to uplift lives thru quality homes and well planned communities for middle-income families in strategic urban areas, while their vision is to be the major player in the real estate industry, establishing presence in all strategic urban areas.

Another competitor Omico Corporation faces in their Sta. Rosa, Nueva Ecija project is DF Homes. DF Homes has already made its name in Cavite and Batangas, with cheap value and good quality as its motto.

Process	DF Homes	Planters DB Properties, Inc.	Omico Corporation
Number of Customers *	100	1200	1000
Number of Transactions Per Month *	1-2	6-8	5-7
Number of Branches (Local Office/s) *	1	2	2
Type of Information System	Semi-Automated	Computer-Based Information System	Semi-Automated
Number of Past Successful Projects Executed	2	11	7
Accuracy in Clerical Operations	90% **	98% ***	95% **
Information Processing Pace	85% **	98% ***	90% **
Storage of Buyers' Reports	Sorted by Year, then Month, and in Alphabetical Order; Manually in File Cabinet	Sorted by Year, then Month, and in Alphabetical Order; Encoded in Company's Local Area Network	Sorted by Year, then Month, and in Alphabetical Order; Manually in File Cabinet
Clientele Monitoring of Payments	Informed by Developer Thru Phone Call	Informed by Developer Thru Phone Call	Informed by Developer Thru Phone Call
Available Financing	In-House, HDMF Loan, Bank Loan	In-House, HDMF Loan, Bank Loan	In-House, HDMF Loan, Bank Loan

Legend:

and the limited number of local office/s

*** - due to the application of computer-based application system and the limited number of local office/s

^{* -} in their respective Sta. Rosa, Nueva Ecija divisions

^{** -} due to the application of the manual information system

Streamlining

The Buyers' Account and Project Sales Monitoring System aims to resolve the problem of the Omico Company in keeping their system organized. This proposed system used tools to thoroughly understand the how the systems could effectively and efficiently create a positive change in its environment.

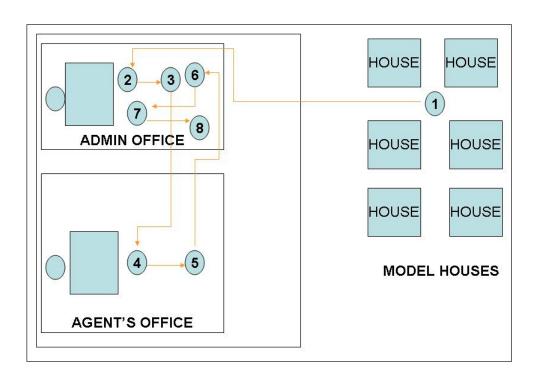
Types of methods used in the proposed system:

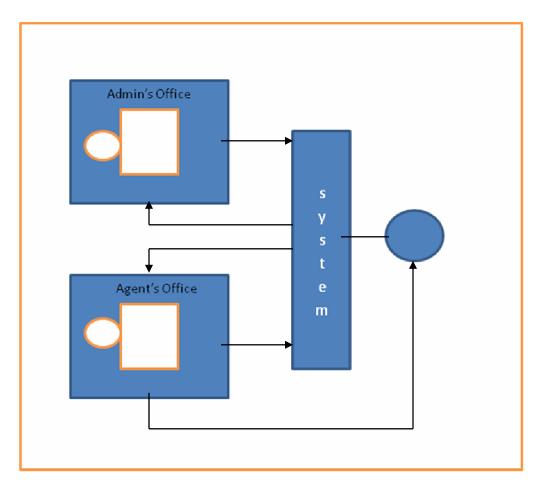
1. Simplification Activities

One of the methods used to improve on the business process of Omico Company. This method is used in the proposed system to reduce the amount of complexity and handling, leading to fewer tasks and stages. The system would provide automatic computation for issuance of buyer's quotation or computation sheet instead of producing additional copies of financial transaction and agreements. Also, the system would automatically encode the buyer's detailed information to eliminate the process of manually encoding the buyer's accounts. The account master file can be accessed in BPSMS by the Administrative Assistant to easily generate standard reports of the sales transaction in the Sta. Rosa Homes Project. Furthermore the system provides an automated array of data and monitors the buyer and agent's accounts of Omico Company to ensure an effective control in handling the sales transaction of Sta. Rosa Homes Project.

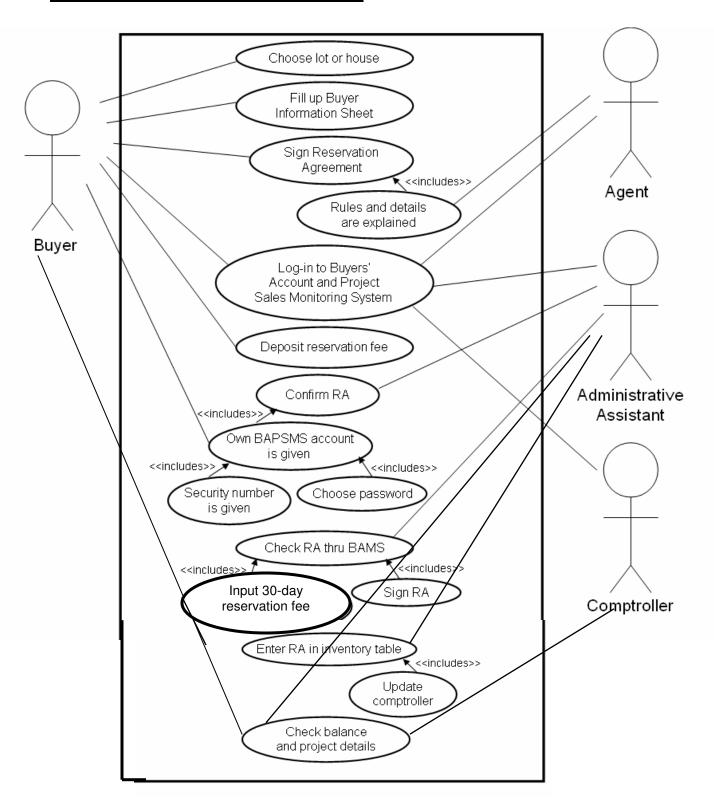
2. Process Cycle-time Reduction

This method is used to identify the activities that slow down the Reservation Agreement process in the Sta. Rosa Homes Project of Omico Company. The system organizes the data and provides a clear view of the inventory status. Moreover, the system automatically prompts the user for updates; which reduces interruption and improve on timing.





Use Case Diagrams of The Proposed System



Identification Summary:

Title: Processing Reservation Agreements using Buyers' Account and Project Sales Monitoring System

Summary: This use case shows the process of Reservation Agreements using Buyers'

Account and Project Sales Monitoring System

Actors: Buyer, Employee, Administrative Assistant

Creation Date: Nov. 6, 2008 Date of Update: --

Version: 1.1 Persons in-charge: Buyson, Carlos, Reyes, Dela Rosa

Flow of Events

Pre-Condition:

- 6. The Omico Office must be open.
- 7. Buyers' Account and Project Sales Monitoring System must be connected to server
- 8. There must be availability of lot/house
- 9. There must be available RA forms
- 10. Buyer must have sufficient money to pay reservation fee.

Main Success Scenario:

- Buyer chooses lot/ house.
- 2. Agent confirms availability of lot/ house.
- 3. Buyer fills-up Buyer Information Sheet (BIS)
- 4. Agent explains payment schedule and submission deadlines of buyer's documentary requirements.
- 5. Buyer signs Reservation Agreements (RA)
- 6. Agent opens BAPSMS, which will be linked to OMICO's Main System (server) and the Buyer (thru Internet)
- Agent logs-in to Buyers' Account and Project Sales Monitoring System (BAPSMS)
- 8. Buyer deposits reservation fee.(P10,000)
- 9. Agent issues Official Receipt.
- 10. Agent inputs O.R. number, along with buyer's account name to BAPSMS. The transaction is recorded and is seen at BAPSMS.

- 11. Buyer inputs new password, security number and signature for account confirmation.
- 12. Administrative Assistant checks RA thru BAPSMS
- 13. Administrative Assistant signs RA on behalf of OMICO and sends copy to Buyer.
- 14. Administrative Assistant inputs 30-day limit for full payment reservation fee.
- 15. BAPSMS will create a new record on the latest RA.
- 16. Administrative Assistant enters RA in inventory table and sends update to comptroller.
- 17. The person in charge of BAPSMS will keep notify server for pending RA records and sends notification to buyer thru internet for remaining balance.
- 18. If buyer exceeds to limit and fails to comply with requirements BAPSMS will notify Comptroller about the cancellation and re-opening of unit.
- 19. The agent is notified by phone on the non-compliance of their buyer. Buyer's account in BAPSMS is cancelled.
- 20. Comptroller will issue memo from BPSMS canceling and re-opening the unit reserved with/ without price adjustment to all concerned.

Alternative Sequence:

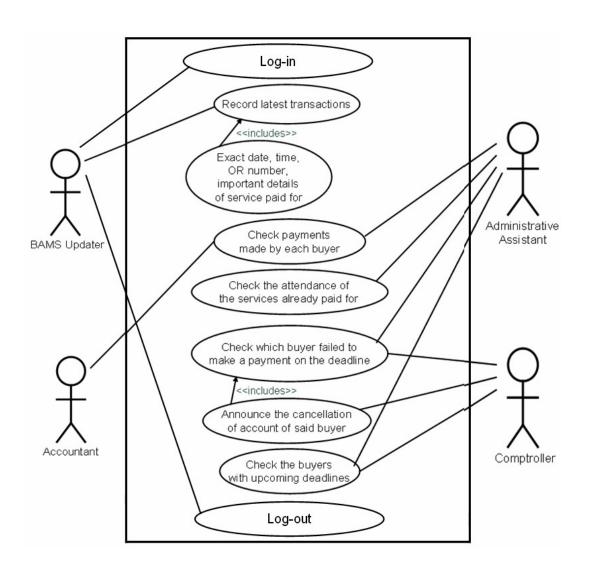
- A1: The buyer comes to Omico Office during lunch break (temporary)

 *The buyer can wait or come back when the break is done.
- A2: The buyer has incomplete requirements (temporary)

 *The buyer can come back again to bring the complete files/requirements that are needed.

Error Sequence:

- E1: The buyer has incomplete/invalid requirements. (Use-case fails)
- E2: The buyer has insufficient amount of money. (Use-case fails)
- E3: The buyer fails to comply with the deadline for full reservation. (Use-case fails)
- E5. Buyers' Account and Project Sales Monitoring Systems is not connected to server (Use case fails)



Identification Summary:

Title: Buyers' Account and Project Sales Monitoring System via LAN

Summary: This use case shows the processes to maintain and use Buyers' Account and

Project Sales Monitoring System via LAN.

Actors: BAPSMS Updater, Accountant, Comptroller, Administrative Assistant

Creation Date: August 2, 2008 Date of Update: August 2, 2008

Version: 1.1 Persons in-charge: Buyson, Carlos, Reyes, Dela Rosa

Flow of Events

Pre-Condition:

- 11. The actors must have a personal computer or laptop connected to each server.
- 12. There must be BAPSMS installed in each actor's computer.

Main Success Scenario:

- 21. BAPSMS Updater logs-in the BAPSMS via LAN.
- 22. BAPSMS Updater encodes the latest transactions.
- 23. Administrative Assistant checks the buyers' accounts.
- 24. Administrative Assistant checks buyers who have bills with upcoming deadlines.
- 25. Comptroller cancels account of buyer who did not pay on or before the deadline.

Alternative Sequence:

A1: The BAPSMS Updater encoded the wrong information (temporary)

*The BAPSMS Updater can change his/her mistake ASAP.

A2: The BAPSMS Updater encoded an invalid password/username (temporary)

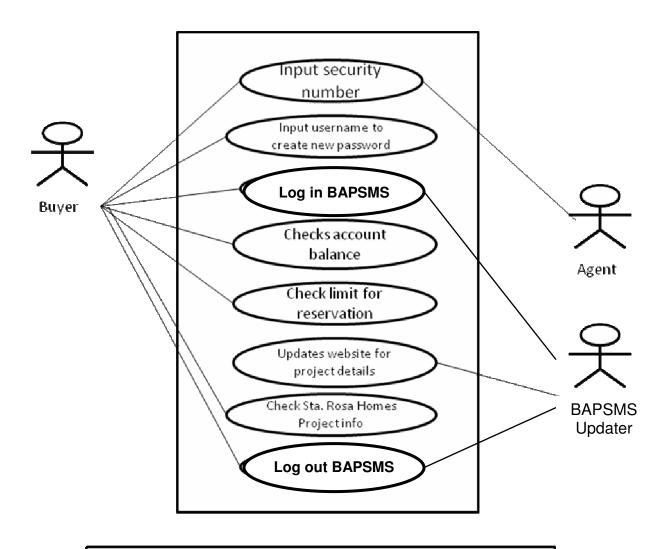
*The computer will notify the BAPSMS Updater that the password/username is incorrect.

Error Sequence:

E1: A hard-drive erasing virus enters the system when the anti-virus is turned off. (Use-case fails)

E2: The computer the actor is using does not work. (Use-case fails)

E3: The computer the BAPSMS Updater is using does not have a keyboard or an on-screen keyboard. (Use-case fails)



Buyers' Account and Project Sales Monitoring
System

Identification Summary:

Title: Buyers' Account and Project Sales Monitoring Systems (BPSMS) via Internet

Summary: This Use Case diagram shows the process on how the buyer checks the account and new updates from Omico Company

Actors: Buyer, BPSMS updater, Agent

Creation Date: August 18, 2008 Date of Update: --

Version: 1.1 **Persons in Charge:** Buyson, Carlos, Dela

Rosa, Reyes

Flow of Events:

Preconditions:

- 1.) The Omico office must be open.
- 2.) There must be an employee to serve the buyers.
- 3.) The buyer must have internet access.
- 4.) The buyer must have sufficient money to pay the amount due.
- 5.) Buyer must have the account username given by the agent.
- 6.) Buyer must have security number given by the agent.

Main Success Scenario:

- 1) Buyer inputs security number given by agent for account activation.
- 2) Buyer uses account username to create new password
- 3) Buyer logs in to BPSMS.
- 4) Buyer checks account balance
- 5) Buyer checks limit for full reservation
- 6) BPSMS updater, updates website on project details.
- 7) Buyer checks Sta. Rosa Homes Project information.
- 8) Buyer logs out BPSMS

Alternative Sequence:

A1: Omico website expires (temporary)

*The buyer logs in BPSMS.

Scenario goes back to point 1.

A2: Invalid entry of username / password/ security number

*BPSMS informs buyer that either password or username is

incorrect until you type the right one.

Error Sequence:

E1: The buyer did not pay reservation fee. (Use-case fails)

E2: The buyer doesn't have enough money. (Use-case fails)

E3: The buyer fails to comply with the deadline for full reservation. (Usecase fails)

Post Condition:

- 1. The buyer has his/her own lot/house.
- 2. The buyer can fully access website.
- 3. The buyer can easily now the updates and project details.
- 4. The buyer can easily contact Omico Company.
- 5. Omico Corporation will have increase in clients.
- 6. Sta. Rosa Homeowners will increase.

Glossary

In this paper, unless the context otherwise requires, the following words or expressions shall have the following meanings:

"OM"	-	Omico Corporation
"PSE"	-	Philippine Stock Exchange
"SEC"	-	Securities and Exchange Commission
"RA"	-	Reservation Agreement
"BIS"	-	Buyers Information Sheet
"BAPSMS"	-	Buyers' Account and Project Sales

Monitoring System

Appendices

Existing Forms and Reports





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Acknowledgements:

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Our Professor, Mr. Paul Pajo Jr., for his vital encouragement and support. Mrs. Jeannie M. Buyson for providing us the resources we need in our study.

And to God, who made all things possible.

Appendix 3

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 - Author: Mark Lehj & David Deeks
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- Author: Simon Bell & Trevor Wood-Harper
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USE CASES

- Getting a T.I.N. Number
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 - http://www.twitter.com

- Getting a Civil Service Eligibility Exam
- http://www.csc.gov.ph/cscweb/form_page.html
- Getting the Smart Money Card
 - http://www.smart.com.ph/money/
- Getting a LinkedIn Account
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