

# Developing high quality multimedia products

[Technology](#), [Computer](#)



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## Introduction:

The increasing development of computer science including the web design in parallel to the huge revelation of media has resulted to an increase in multimedia content at the final product presented to the user (Martin & Lynch, 2003). From this statement, we can immediately see the important role the multimedia is playing in our lives.

We can hardly find a business product or a technical application that does not contain a multimedia content at the user interface level, in this paper we will be stating the best approach and methodology for Creating a high quality multimedia product with successful user interface.

This methodology consists of including some important phases in the development process such as : Quality assurance, risk management and validation and verification, in order to get a maximum quality product ( sherwood & Rout , 1998 ) and a content that is not noisy. Furthermore, to reach this objective, developers are obliged to consider the Human Computer Interaction discipline, in order to get interactive computer systems for human use (Hewett et al, (n. d.)). Concerning the evaluation of the final product, the multimedia interface needs to be evaluated on its usability and its purity, simplicity and beauty (Martin, Bolissian & pimenidis, 2003).

To recapitulate what we have said above, multimedia industry is facing many problems, such as “ Noise “ , developers are obliged to follow the a methodology and take in a serious consideration the human computer interaction discipline in order to overcome the bug of “ Noisy multimedia product “.

## Multimedia

The first question one may ask when we talk about multimedia is, What is Multimedia ? Multimedia is, In short, the usage of different form of media put together in one seamlessly combined context. However, the definition of this word has been a problematic issue among scientists; the artists see it as a means of expression, a way of transmitting the information to the others. Whereas technologists have defined the word “ multimedia ” as a group of means that let the media to be obtained, represented, delivered and displayed. ( Mckerrow, 2005 ) . Multimedia has become a big essential part of our daily lives, as practically all types of information we exchange are categorized under multimedia from music to Tv to presentations to magazines to web sites. Multimedia development has been in permanent growth, this important field in the information technology incorporates expertise and knowledge from software engineering, business environment and the multimedia interface; In other words, multimedia is involved in the fields of computers, communications and the media. Having defined multimedia, let us now talk about a key factor in designing high quality multimedia products.

## Human Computer Interaction ( HCI )

Human Computer Interaction can be defined as the science concerned with the “ plan and design “, evaluation and implementation of computer systems that have user interface (Hewett et al, (n. d.)). The multimedia user interface has a very important role in deciding whether the multimedia content has been successful or not, because if the interface is usable and elegant the

multimedia application will be achieving a big part of its objectives , such as being noiseless.

### Evaluation of multimedia products

As multimedia is a vast domain and is involved in all domains, the evaluation of multimedia applications has never been an easy task, there are different aspects to look at when measuring the success of any multimedia application, for instance, the designer has to look to the business aspect and see whether his product is still demanded by customers, and does his product still meet all the requirements. In the visual design or web sites, success lies under the leanness concept (Martin, Bolissian & pimenidis, 2003).

The evaluation of multimedia product is hard and needs a structured framework, one should follow the coming framework to get his product well evaluated:

- Does the project accomplish the task was designed for ?
- Is the user happy with it ?
- Is the application reliable ?
- Is the application complete ?
- Can the user interact with the application in the best manner ?
- Can the system respond to any sudden changes ?

- Are the users served with only the exact requested information ?
- Can the system respond to all the stakeholders requirements (Martin, Bolissian & pimenidis, 2003).

Another important notion in the evaluation of a multimedia product is the term “ Quality Of Service ” ( QOS ). With the “ Quality Of Service ” we can measure how high quality is the multimedia application. According to Vogel et al ( 1994 ) Quality of service is those parameters of a multimedia application that influence the presentation of the content of the multimedia system to the user. In short, Quality of service is the customer’s satisfaction with the multimedia product.

To sum up, The evaluation of the multimedia application and the Quality of service, which shows the users satisfaction with the product, are very important for the developers to design a high quality multimedia systems.

## Noise

Noise is the first enemy of multimedia products producers, as it is very hard to control and it is unexpected problem. To ensure that our multimedia application is not noisy or to get a high quality product we, as developers, have to follow a structured methodology for multimedia systems development. Before we get into this methodology, let us see what noise is, and what existing solutions are to have noiseless multimedia content.

In general, noise is known in the electronic and telecommunication field, when transmitting some data in a telecommunication system using a wire, we call any loss of data that may occur, Noise. The piece of information to be sent is ciphered and then sent to its destination ( the user for instance ) when it is received the data is deciphered and then read, any difference between the source message and the resulted message is due to the data loss and it is called “ Noise “ . To make sure that the data received is the same as the original one, computer programmers have added some codes that detect and correct errors to the original message (Martin & Lynch, 2003). This solution seems to be effective and successful as it is still being used by telecommunication peoples and networking programmers.

But what about Noise in multimedia ? ? ? which is more complicated to get rid of.

In multimedia information systems and multimedia product, Noise can be defined as any inappropriate piece of information or content that is received by the user with regard to the content, structure of display, time of display, accuracy and in functionality and navigation. Basically , Noise occurs when the usability rules are not taken in consideration (Martin & Lynch, 2003).

Having defined noise, now, developers need to have a scale so that they can know at what extent their products are noisy or are noiseless, Martin & Lynch,( 2003) have done it for us, Here is the recapitulation of their nice work :

At first, multimedia is involved in a wide context. To well evaluate multimedia product we need to consider user's opinion and do not be satisfied only by the view of visual designers and human computer interaction (HCI) designers. To know how noisy your multimedia system is, you must know the profile and the requirements of all the stakeholders. The system should adhere to the usability rules required by the stakeholders in term of meeting the objectives the system was designed for, with consideration to the computing infrastructure and the location where the multimedia system is operating.

The framework for evaluating Noise in multimedia product:

Stakeholders : does the system provide the users with only the needed information ?

Visual design : is the user interface nice?

Usability : is the multimedia system easy to use ?

Information : is the data given correct ? is it on time ? is it the needed information ?

Fit with computing devices : do the computing infrastructures give the results needed with the needed details ?

Location : do the infrastructures of the system work in all the places.

The need for a methodology

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to avoid “ Noise “ in multimedia products Multimedia industry is growing more rapidly than expected, high quality product and the gain of the user’s satisfaction has become now a prime consideration. To reach those objectives, developers must create noiseless multimedia systems. Before, the problem was in the method of production and in the way of thinking of developers and designers, as they used to look to what is being developed rather than looking to how is being developed ( sherwood & Rout , 1998 ) . Recently, Multimedia producers have defined a methodology for the development of the multimedia products which leads to a Pure and Simple interface that are “ noiseless “ . Developers can benefit from adopting this well defined approach and a rigorous methodology many advantages such as : – the quality of the product will be improved, and – the staff will be guided and supported by templates and exemplars ( sherwood & Rout , 1998 ) .

Brief description of the methodology :

The structured approach explained above, can be a benchmark which will help in the increase of the productivity and the quality of the multimedia product ( sherwood & Rout , 1998 ) .

This methodology brings some innovating ideas and tools. It brings new models of practice and it provides the staff of a multimedia project with templates and models which can be used to create a high quality multimedia products.

This methodology, as Sherwood & Rout ( 1998 ), have stated, includes six phases of multimedia development:



Initiation : during this phase the general planning is done.

Specifications : during this phase they test the feasibility and the usability of the Project.

Design : during this phase the stakeholders are defined, and solution to perspective problems are found.

Production : during this phase the final product will be finalizing.

Review and Evaluation : during this phase a critical examination of the final product is done.

Delivery and Implementation. during this phase the client is introduced to accept and sign the agreement to finalize the product.

The power and the strength of this method is the incorporation of the quality assurance throughout all the development phases, which is a new way and very efficient one to get a noiseless product.

Each phase of the previous ones, is divided into three main activities:

- Development
- Management : deal with legal issues and risk management
- Support : quality assurance , validation and verification.

Further Issues :

Well evaluate the multimedia product and well design it following a structured methodology, is the solution to design noiseless multimedia products. This is what we have given to the readers through this paper. But the problem with this solution is it is just a theoretical process in which the

successful result does not follow in all cases. Because in the practical world nothing is perfect, bugs and mistakes have always existed. So in multimedia world also nothing is perfect ( noiseless ).

I suggest that rather than trying to develop noiseless multimedia products, developers should try creating applications in which noise is minimized. It is better for both the user and the producer.

Conclusion :

The multimedia product has been evolving without cease in the last years due to the big importance of this field in the information technology. To have better multimedia systems, developers have to design carefully by including in this process many important points. The most important factor in designing not noisy multimedia product is to follow the structured methodology discussed above. Furthermore, producers or developers should think in the interface of the Human Computer Interaction and work out to develop a usable interface and aesthetic application. In my opinion, I see that if the usability rules are adhered, the developers will have a big step to reach their goal to create “ Noiseless “ multimedia application. But as we know multimedia is a vast domain and the main problem that developers are facing is : The perfect noiseless multimedia product can be developed only theoretically, as in the practical world we, always have some unwanted and unexpected errors and bugs that make the system noisy.

Now, it's we who ask this question : “ can we perform such applications in the real word ? ? ? “.

## References:

Hewett, Baecker, Card, Carey, Gasen, Mantei, Perlman, Strong and Verplank (2008), ACM SIGCHI Curricula for Human-Computer Interaction content available at : [http://sigchi.org/cdg/cdg2.html#2\\_1](http://sigchi.org/cdg/cdg2.html#2_1)

Martin, S., Bolissian, J., Pimenidis, E., (2003) ' PURE and SIMPLE: a framework for the evaluation of Multimedia products' School of computing and technology, university of east London, Uk

Martin, S. and Lynch, J., (2003) ' VISUAL: a framework for the evaluation of visual ' noise' in multimedia interface' School of computing and technology, university of east London, Uk

McKerrow, P., (2005) ' Teaching content creation with programming', IEEE computer society 2005, university of Wollongong, Australia.

Sherwood, C., and Rout, T., (1998) ' a structured methodology for multimedia product and systems development', School of Computing and Information Technology, Griffith University, Australia.

Vogel, A. Kerherv, B., Bochmann, G. and Gecsei, J., (1994) ' Distributed Multimedia Applications and Quality of Service', Universite de Montreal 1994, Canada.