

Barry Boehm

Barry Boehm was born in 1935. He is a software engineer and a now « distinguished professor » at the University of Southern California.

His Contribution to the field of software engineering :

Barry Boehm, research interests include software development process modeling, software requirements engineering, software architectures, software metrics and cost models, software engineering environments, and knowledge-based software engineering » Wikipédia

COCOMO :

The use of this model is to cost estimate a software. Although not used anymore and considered as obsolete by most people, it is considered as one of the best-documented models, as it was based on the study of real project (a bit more than 60).

Using unit such as Effort and schedule and considering the system (organic, semidetached, embedded, the way to translate the complexity of the project), we can then make the cost calculation using either a basic, intermediate or detailed cocomo model (from less to more precise).

Spiral Model

This model is a risk driven software development process model. This is a really famous and important life cycle model. It's representation is a spiral (as the name suggest) with loop (the number of those vary from project).

In this model the process of development is cut into « phases » (each loop).

Although this model has his downside : complexity, not cheap (not suitable for small project which is not that much of a problem since the bigger the harder), time estimation become difficult with this model and also without a good expertise on risk the model won't work....

The advantages are still considerable and It allows (by the use of prototype) to have a better customer satisfaction and also flexibility.

This model is also famous for having influenced other major process such as MBASE and extreme programming.

MBASE

A software development process co-developed with Dan Port.

It use multiple models to ensure consistency in a project.

Wideband Delphi

A variant of the Delphi method which is a communication method that relies on expert to forecast. It as a few Key characteristics such as the anonymity of the participants (allows free expression without fear of judgement etc). Another key characteristics is the regular feedback meaning commenting other predictions. This characteristic is really important and often saw on a lot of process in company.

The Wideband Delphi method include more iteration and more (it means more communication and interaction) between the participant. Fills form -> Analyze the form -> Talk about it -> fills form

As we're not robot yet, communication is one of the most important thing in a company and in a project (if the goal is to succeed of course). Often lack of communication or bad communication can lead to problem. But human tend to have a hard time to share they view without making a scene.

As such those method that allows a better communication between member of a team are a real assets and are actually a must in a big one.

The Incremental Commitment Model

This model is a system design that can be applied to software. Basically It's working on the project piece by piece then join the piece to make it whole.

The bad side of this practice is that if the project is stopped in the middle for example, you only have pieces and nothing from the project work, which is sad since the objective is that the whole project work.

That's why this is often coupled with iterative model (like in AGILE).

We do piece by piece but we simplify the piece and itterate on those pieces to add complexity until achieving the desired result.

This also allow to have a feedback on the product, since in an incremental model only you can only test pieces not the whole product so it's hard to know if the project is going on the right way.

As a conclusion we can say that the work of Barry Boehm is quite major and is the basis for a lot of model of modern software engineering.

His work allow us and we'll continue to allow us to have a better time managing project and I would like to say a special thank to him as it will make my job more easy in the future.

Thank You for reading