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Software ENGINEERING –

Measurement & Assesment

# Abstract

This report aims to consider the ways in which the software engineering process can be measured and accessed. It aims to do this through the following terms; measurable data, computational platforms available, algorithmic approaches available and finally the ethics of such analysis.

This report will examine existing academic material on the subject of the software engineering process in conjunction with the teachings of Stephen Barrett, a professor of Trinity College Dublin teaching CS3012: Software Engineering.

# Introduction

“There is no single development, in either technology or management technique, which by itself promises even one order of magnitude improvement within a decade in productivity, in reliability, in simplicity.” (Brooks F, 1987)

The first step to understanding software engineering measurement and assessment is to fully define the process of software engineering itself. The notion of ‘software engineering’ was first proposed in 1968 at a conference held to discuss what was then called the ‘software crisis’. (Naur P, 1969). The crisis being that individual approaches to program development did not scale up to large and complex systems.

Software engineering is often described as the engineering discipline that is concerned with all aspects of software production. This is the systematic application of thorough engineering principles to the entire software process including the technical process, project management and tool development to support software production.

# Measurable data

# Computational Platforms available

# Algorithmic Approaches available

# Ethics of Approaches

# Conclusion

# Bibliography

Naur, P. and Randell, B. (1969). Software Engineering: Report on a Conference sponsored by the NATO Science Committee, Garmisch, Germany. 7th to 11th October 1968.

Brooks, F. and Kugler, H.J., 1987. No silver bullet (pp. 1069-1076). April.