

How to write an research abstract

Research Methods - Barbara Russo

SwSE - Software and Systems Engineering

Beck Kent

- Founder of the agile method of development
- eXtreme Programming
- Agility in writing a paper
- A long experience in reviewing articles

K.Beck's personal view

- Write the programme Committee
- One startling sentence
- Argument: problem, defence, related work
- Abstract

Write the programme Committee

- PC made of experts in the field
- PC's desk piled with papers
- 30 seconds to grab their attention
- If the paper is of broad interest there must be a spark in it
- If your paper is technical they may not be familiar with it. It must readably present the novel aspects of the work

One startling sentence

- Temptation to write everything of your work
 - Boil your message down to one startling sentence
 - Danger
 - Open to criticisms
- Example
 - “Network garbage collection is fast and easy”
 - The sentence is clear and open to discussion

Argument: problem, defence, related work

- Stand for the validity of your startling sentence
- Convince of the truth of your sentence

Divide your paper into four sections

- First section: the problem to be solved
 - Why is a problem
 - Importance to solve it
- Second section: describe the problem
 - Related work justifying the problem
 - Implementation details

Divide your paper into four sections

- Third section: solution of the problem
 - Discuss all the reasonable counter arguments
- Fourth section: what other people have done in the area
 - convince of the novelty

Abstract

- A four sentence summary of the conclusion of the paper
- First sentence: state the problem
- Second sentence: why the problem is a problem
- Third sentence: the startling sentence
- Fourth sentence. Implication of the startling sentence

Exercise - Find the 4 sentences

Abstract

In this paper, we focus on the evaluation of the factors that impact on the introduction of Open Source Software (OSS) by means of the analysis of Open Data Standards (ODS) generation. In this sense, we model the generation of Open Data Standards as a self reinforcing mechanism that perpetrates through time. To perform such analysis, we use urn models, models that are typically deployed when modelling path dependent processes. First, we perform the identification of the variables that impact on the generation effect, in particular Network Externalities that arise due to the presence of a large number of files and size of the files created. Second, we evaluate the urn selection process through a multi-urn schema. The main findings are a confirmation of the importance of Network Externalities as reported by theory and the importance of past historical file generation for the subsequent file generation process.

New abstract

Exercise - Find the 4 sentences

Former abstract

In this paper, we focus on the evaluation of the factors that impact on the introduction of Open Source Software (OSS) by means of the analysis of Open Data Standards (ODS) generation. In this sense, we model the generation of Open Data Standards as a self-reinforcing mechanism that perpetrates through time. To perform such analysis, we use urn models, models that are typically deployed when modelling path dependent processes. First, we perform the identification of the variables that impact on the generation effect, in particular Network Externalities that arise due to the presence of a large number of files and size of the files created. Second, we evaluate the urn selection process through a multi-urn schema. The main findings are a confirmation of the importance of Network Externalities as reported by theory and the importance of past historical file generation for the subsequent file generation process.

New abstract

The decision about the adoption of Free/Libre/Open Source Software (FLOSS) is a key issue in Small and Medium Enterprises (SMEs). Indeed, very often such organisations don't have the resources needed to fully evaluate the migration from existing legacy systems. To help the decision process of these organisations, we propose a preliminary study about an instrument based on the analysis of files' generation of targeted data standards. We model the file generation process as a self-reinforcing mechanism through the usage of urn models.

By applying the instrument to a large dataset in the office automation field, we found a first confirmation about the importance of network externalities as reported by theory and the importance of past historical file generation for the subsequent file generation process