

# ABSTRACT T WRITING

# Sample 1

This paper explores privacy issues in relation to the growing prominence of marketing research and data mining in websites for children. Whereas increasing protection is given to individuals' personal information, little attention is paid to information that is aggregated, electronically scanned, and sorted — despite the fact that aggregate information is often highly valued by the marketing industry. The authors review current trends in Internet market research, data mining techniques, policy initiatives, and the contents of some of the most highly frequented children's game sites. The paper demonstrates how common data mining practices constitute a threat to children's emerging rights online.

# Sample 2

Human-robot collaborative work has the potential to advance quality, efficiency and safety in manufacturing. In this paper we present a gestural communication lexicon for human-robot collaboration in industrial assembly tasks and establish methodology for producing such a lexicon. Our user experiments are grounded in a study of industry needs, providing potential real-world applicability to our results. Actions required for industrial assembly tasks are abstracted into three classes: part acquisition, part manipulation, and part operations. We analyzed the communication between human pairs performing these subtasks and derived a set of communication terms and gestures. We found that participant-provided gestures are intuitive and well suited to robotic implementation, but that interpretation is highly dependent on task context. We then implemented these gestures on a robot arm in a human-robot interaction context, and found the gestures to be easily interpreted by observers. We found that observation of human-human interaction can be effective in determining *what* should be communicated in a given human-robot task, *how* communication gestures should be executed, and priorities for robotic system implementation based on frequency of use.

# What is an Abstract?

- ❑ An abstract is a self-contained, short, and powerful statement that describes a larger work.
- ❑ An **abstract** is a brief summary of a research article, [thesis](#), review, [conference proceeding](#), or any in-depth analysis of a particular subject and is often used to help the reader quickly ascertain the paper's purpose

# Standard Word Limit

100 to 250 words

# Informative Abstract Format (For Completed Study)

## 1) Motivation:

Why **do we care** about the problem and the results? If the problem isn't obviously "interesting" it might be better to put motivation first; but if your work is incremental progress on a problem that is widely recognized as important, then it is probably better to put the problem statement first to indicate which piece of the larger problem you are breaking off to work on. **This section should include the importance of your work, the difficulty of the area, and the impact it might have if successful.**

## 2) Problem statement:

What **problem** are you trying to **solve**? What is the **scope** of your work (a generalized approach, or for a specific situation)? Be careful not to use too much **jargon**. In some cases it is appropriate to put the problem statement before the motivation, but usually this only works if most readers already understand why the problem is important.

### **3) Approach:**

How did you go about solving or making progress on the problem? Did you use simulation, analytic models, prototype construction, or analysis of field data for an actual product? What was the extent of your work (did you look at one application program or a hundred programs in twenty different programming languages?) What important variables did you control, ignore, or measure?

### **4) Results:**

What's the answer? Put the result there, in numbers (if needed). Avoid vague, hand-waving results such as "very", "small", or "significant." If you must be vague, you are only given license to do so when you can talk about orders-of-magnitude improvement.

## 5) Conclusions:

What are the **implications** of your answer? Is it going to change the world (unlikely), be a significant "win", be a nice hack, or simply serve as a road sign indicating that this path is a waste of time (all of the previous results are useful). Are your results general, potentially generalizable, or specific to a particular case?



# Abstract as whole...



Motivation

Problem  
statement

Methodology

Results and  
conclusion

# IMPROVE YOUR SCIENCE AND RESEARCH VOCABULARY

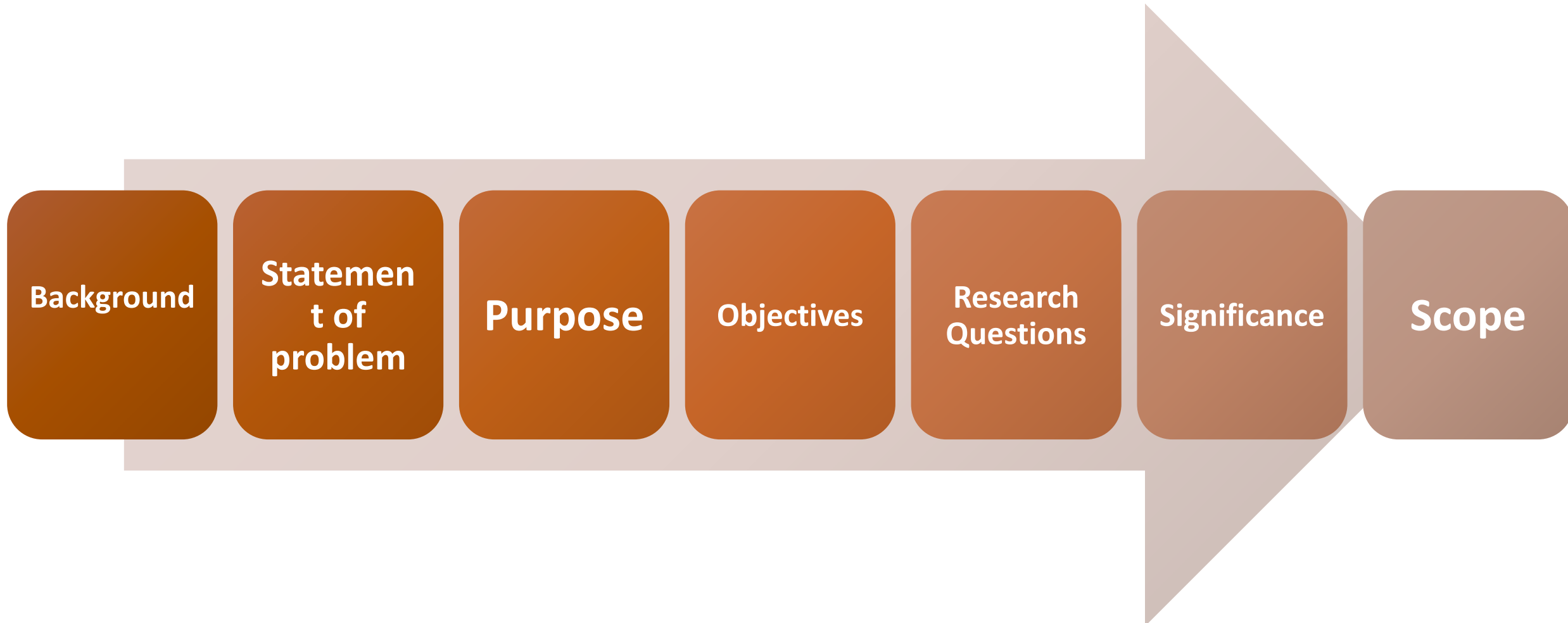
<http://www.phrasebank.manchester.ac.uk/>

# Introduction in Technical Report

# What does it do?

- It discusses the function of the report
- Discusses the accomplishments
- Source of authorization
- Provides the material to reader before they read the body of the report

# An introduction will have,



# 1. Background

- provides readers with essential background info of the relationship between specific topic of research and the general area of study
- states the problem, the issue, the opportunity, or situation that initiates the proposed research
- provides an **understanding** of the issue or problem studied and the reasons for doing the research
- explains the importance of the topic and the rationale(s)

## 2. Statement of Problem/Problem Statement

- a single statement that defines the issue or problem investigated in the study, accompanied by other paragraphs that further elaborate on the issue or problem

**What do we already know?**  
**(Contextualize)**

**What do we still need to know?**  
**(What is the exact issue?)**

**Problem  
Statement**

**Why do we need to know  
more?**  
**(Discuss the relevance)**

**What are we going to do to  
solve the issue?**  
**(Your plan)**



# EXAMPLE: Known and Unknown

Voter turnout in the Southeast has been decreasing steadily over the past ten years, in contrast to other areas of the country. According to surveys conducted by local nonprofits, turnout is lowest among those under 25 years of age. There have been some effective attempts at engaging these groups in other regions, and in the last two elections, major parties increased their campaigning efforts. However, these interventions have yet to have any significant effect on turnout.

## Contd. Relevance

Low voter turnout has been shown to have negative associations with overall civic engagement. It is becoming an area of increasing concern in many European democracies. When specific groups of citizens lack political representation, they are likely to become more excluded over time, leading to an erosion of trust in democratic institutions. Addressing this problem will have practical benefits for the Southeastern US as well, and will contribute to understanding of this widespread phenomenon.

## Contd. Your objective

The aim of this research is to investigate effective engagement strategies to increase voter turnout in the Southeast. It will identify the most significant factors in non-voting using surveys and interviews, followed by conducting experiments to measure the effectiveness of different strategies.

# 3. Purpose of the study

- contains broad and extended discussion on the reasons the study is/was conducted and the overall intentions of the study

# 4. Objectives of the study

□ states what you propose to find out

# Action verbs to be used for objective/purpose

To  
ascertain

To reveal

To  
describe

To decide

To  
identify

To  
explore

To  
discover

To  
examine

To compare

To assess

To  
investigate

To evaluate

To  
recognize

To measure

To find out

To present

To provide

To  
determine

# 5. Research questions

- are questions that you need to find answers to
- guide discussions about the topic
- stimulate readers' interest
- are related to purpose and objectives of study

## 6. Significance of the study

- discusses the benefits of doing the proposed research and the advantages that come from approving it



# 7. Scope of the study

- shows direction of research
- states boundaries or parameter of study
- outlines method of investigation used in study