**Abstracts**

Following the title of your research, it is the first text that the reader encounters. Abstracts not only inform the reader about the content of the text, but also help the reader decide whether they should read the entire text or not. **As a result, abstracts should not only include all the formal requirements, but should also be written in a way that captures the reader’s attention – and this is what poorly written abstracts fail to do.**

**Read the title of a paper in conference proceedings. What is the text about?**

Bathroom Activity Monitoring Based on Sound

**Read the full abstract. Is it a well-written abstract? Why/why not?**

In this paper an automated bathroom activity monitoring system based on acoustics is described. The system is designed to recognize and classify major activities occurring within a bathroom based on sound. Carefully designed HMM parameters using MFCC features are used for accurate and robust bathroom sound event classification. Experiments to validate the utility of the system were performed firstly in a constrained setting as a proof-of-concept and later in an actual trial involving real people using their bathroom in the normal course of their daily lives. Preliminary results are encouraging with the accuracy rate for most sound categories being above 84 percent. We sincerely believe that the system contributes towards increased understanding of personal hygiene behavioral problems that significantly affect both informal care-giving and clinical care of dementia patients.

One of the common issues in writing is a lack of detail, and this is true for abstracts as well. Typical problems of abstracts are the following:

1. Abstract states, what the research topic is (instead of clearly stating the results)

X This report examines the causes of oversleeping. (What exactly has been found?)

√ Individuals oversleep because they go to bed too late, forget to set their alarms, and keep their rooms dark.

1. Abstract contains only general categories (instead of specific details of the research outcomes).

X The study draws conclusions about which variables are most important in choosing a movie theater. (Which parameters are important?)

√ The study concludes that the most important variables in choosing a movie theater are comfortable seats and high-quality popcorn.

A good abstract generally contains: (1) a clear problem statement, (2) why the problem is important, (3) the technical contribution of the work, (4) what the evaluation is and what it indicates (e.g., a proof, experiments, data collection), and (5) meaning, e.g., what the consequences of (3) and (4) are. Another key aspect of a good abstract is that it will include concrete and specific technical details that motivate readers to find out more.

An abstract should contain the following parts: **purpose**, **methods**, **results**, **conclusion** (plus possibly also **research questions** a **recommendations**). An alternative categorization is **IMRaD** – Introduction, Methods, Results, and Discussion.

**Importantly, the abstract should make sense on its own, but it should also be understandable to researchers outside of your specialization** – remember that plenty of research conducted is interdisciplinary in nature.

Since abstracts are limited by their word count (usually 200 words, but this can vary), the simplest solution is to follow the following template:

* Write 1-2 sentences of the introduction, which explains the area of research, the goals of the research, and the research questions
* Write 1-2 sentences describing the research methods
* Write 1-2 sentences describing the results of the research
* Write 1-2 sentences containing the conclusion and possibly also recommendations stemming from the research

**The following is an abstract published in the field of social work. Does it follow the general outline above?**

Between 1992 and 2003, services for homeless veterans at the Veterans Affairs Greater Los Angeles Healthcare System went from inappropriate utilization of hospital medical and psychiatric beds, to a continuum of residential treatment, transitional housing, and employment programs through arrangements with private agencies. The authors use elements of Hasenfeld and Brock’s Political Economy Model (1991) to explain this transformation in service delivery that was spearheaded by a VA social work leadership team. It is argued that three driving forces crucial to program implementation were present: technological certainty, economic stability, and concentration of power. Evidence of the implementation’s impact includes creation of new homeless program beds, a reduction in use of medical/psychiatric beds, and a large number of formerly homeless veterans with housing and employment at program discharge. Study limitations and implications for future studies are discussed.

From: Nakashima, J., McGuire, J., Berman, S., & Daniels, W. (2004). Developing programs for homeless veterans: Understanding driving forces in implementation. Social Work in Health Care, 40(2), 1-12.

**Read the following abstract and identify its parts. Are there any issues with the abstract? To make navigating the abstract easier, certain parts of the abstract are highlighted.**

 **(1)** Personalized Web applications automatically adapted for different clients and user preferences gain more importance. **(2)** Still there are barely technologies to compensate the additional effort of creating, maintaining and publishing such Web content. **(3)** **To address this problem**, this paper **introduces** a declarative, component-based approach for adaptive, dynamic Web documents on the basis of XML-technology. **(4)** Adaptive Web components on different abstraction levels **are defined** in order to **support** effective Web page authorizing and generation. **(5)** Hierarchical document components playing a specific semantic role **are also defined**. **(6)** The hyperlink view for defining typed links **is spanned over** all component layers. **(7)** Beside the issue of both implementation artifacts and higher level concepts, the model also allows to define adaptive behavior of components in a fine-granular way. **(8)** As a further benefit the support for ubiquitous collaboration via component annotations **is introduced**. **(9)** Finally, the stepwise pipeline-based process of document generation is introduced and performance issues **are sketched**.

**Abstract Worksheet**

Purpose/Problem

What is the problem?

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Methods

What are the three most important details about your methodology? Do these relate to your purpose?

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Results

What are your three most important findings?

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Conclusion/Implications

How do your results connect to your purpose?

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So what? Why is this important? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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