RESOURCE ALLOCATION IN OPEN RAN SYSTEM USING NETWORK SLICING

University of Tehran

Research Planning Report

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October 2, 2021

Abstract

In this project

1 Introduction & Literature review

Give background and motivation for your work. Explain knowledge needed. Show its scientific and healthcare need. Define a set of clear questions and approaches to answering them. Highlight their originality and/or significance. Explain how they adds to, develop (or challenges) existing literature in the field. Note, this comprises both AI questions and Healthcare questions.

1.1 AI literature

1.2 Healthcare literature

2 PhD goal

Explain the main question you want to answer in terms of AI technology developed and healthcare challenge addressed. Connect it with current state of research and show its importance in this context. Show what you want to achieve. Explain your contribution to the subject.

3 Methodology

Specify methodology and techniques which will be used for your research. Be specific this will allow the reviewers to understand how well thought out and achievable your plan is.

4 Summarise the work done since the start of the PhD.

Show interim results, if any.

5 Program of work

This is your list, description and schedule of activities to achieve in PhD goal . Include Publication & conference deadlines as expected, i.e. Give an overview of subjects or steps of your work you intend to publish, suggest some meetings or conferences you plan to attend in order to present your research.

6 Data, Infrastructure or Software needs

Make a list of facilities or infrastructure, including data and software you will need to complete your research. Explain how it is or will be made available. Assess the ***Data Readiness Level*** *of all needed data sources.*

7 Planned Impact

Assuming that you achieve your PhD goals, what is the impact that your proejct will achieve. Assess your project's planned impact in terms of the PICO (population, intervention, comparator and outcome) framework.

Example: Diagnosis

Population : To which populations of patients would the test be applicable? How can they be best described? Are there subgroups that need to be considered?

Intervention (index test[s]): The test or test strategy being evaluated.

Comparator The test with which the index test(s) is/are being compared, usually the reference standard (the test that is considered to be the best available method to establish the presence or absence of the condition of interest - this may not be the one that is routinely used in practice).

Target condition: The disease, disease stage or subtype of disease that the index test(s) and the reference standard are being used to establish.

Outcome The diagnostic accuracy of the test or test strategy for detecting the target condition. This is usually reported as test parameters, such as sensitivity, specificity, predictive values, likelihood ratios, or - where multiple cut-off values are used - a receiver operating characteristic (ROC) curve.

Example: Intervention

Population Which populations of patients are we interested in? How can they be best described? Are there subgroups that need to be considered?

Intervention Which intervention, treatment or approach should be used?

Comparators What is/are the main alternative(s) to compare with the intervention being considered?

Outcome What is really important for the patient? Which outcomes should be considered? Examples include intermediate or short-term outcomes; mortality; morbidity and quality of life; treatment complications; adverse effects; rates of relapse; late morbidity and re-admission; return to work, physical and social functioning; resource use.

References

[1] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The LaTeX Companion*. Addison-Wesley, Reading, Massachusetts, 1993.

[2] Albert Einstein. *Zur Elektrodynamik bewegter Körper*. (German) [*On the electrodynamics of moving bodies*]. Annalen der Physik, 322(10):891-921, 1905.

[3] Knuth: Computers and Typesetting,
`http://www-cs-faculty.stanford.edu/~uno/abcde.html`