# Research Proposal

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**Abstract**

Many data vendors and financial service suppliers extract information from authorised sources of real-time data. It is common to display this data in terms of simple figures, charts, or tickers[1]and to navigate via symbol lookup.

This projects attempts to determine the effectiveness of the approaches above, suggest alternatives, and provide appraisal of these alternatives.

## Specific Objectives

- Evaluate the conventional ways of presenting and interacting with financial data.
- Suggest and implement modifications of the above, e.g. attraction of user's attention to more relevant figures such as high volume trade and volatile share values.
- Investigate the potential advantages of the proposed alternatives.

## Literature Sources

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[1] Dynamic repetitive display of figures.

## Research Design

This project will use a deductive approach to building the theory. Firstly, research into HCI will derive the criteria for evaluation of HCI approaches.[2] Analysis of the existing methods should then take place with respect to the derived criteria. Discovering the correlation between time measures, productivity and the system involved will complete the first phase of the project.

The implementation phase of this project, which should occupy the largest proportion of the time, attempts to practically prove that more advantageous HCI approaches can be produced. An OO computer language will be used to construct an innovative user interface that will be operated by alternative means of interaction e.g. media cubes.

Once one or more desirable alternatives have been constructed, the evaluation criteria, as defined before, will be used to measure the performance of the new system/s.

Finally, comparison between the various systems can take place and conclusions on users' performance with respect to the system used will be drawn.

## Contribution of Research

- Providing concrete proof that some alternative interfaces:
  - may save time and effort.
  - can point users at more relevant figures.
  - are more appropriately customised to their users.
- Showing that some interaction devices will be more suitable than others in the context of financial data.
- Defining and constructing new ways of viewing and interacting with financial data. These should offer convenience, simplicity and higher usability.

Commercial interest and extensive past research in this field are highly likely to decrease the impact of this project. I am therefore aware of the possible need to readjust my research plan.

[2]The evaluation process may involve observation on people to confirm theoretic hypotheses.