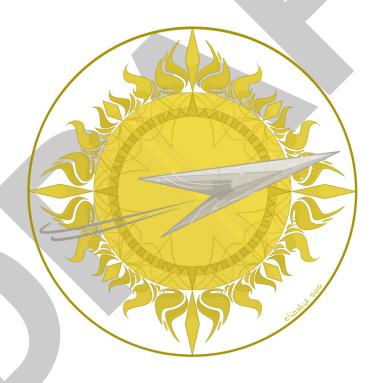# **The Seldon Plan** — *A socioeconomic and anthropological analysis of long-term consequences of the current astropolitical policies across the Galactic Empire*

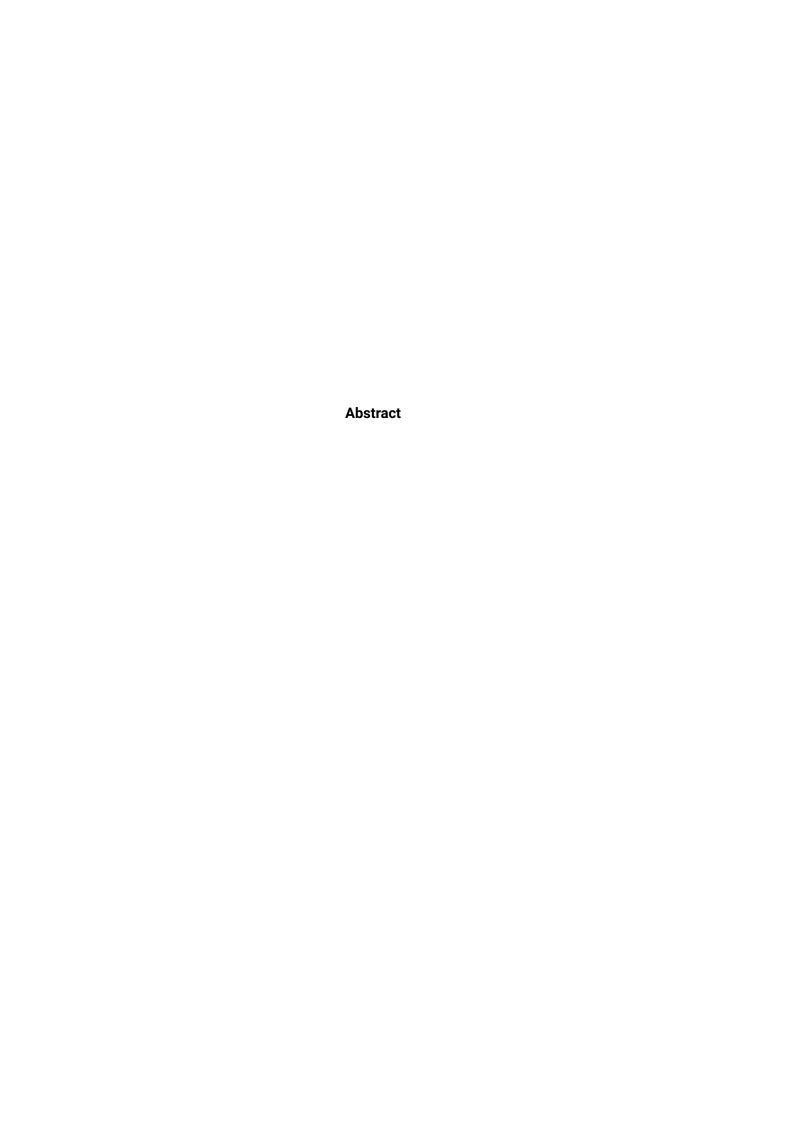*Dr. Gaal Dornick, Dr. Yugo Amaryl, Prof. Dr. Hari Seldon*

Field of Study	Psychohistory
Topic	Statistical analysis of astropolitical policies
Examiner	Prof. Dr. Hari Seldon

Abstract

Contents

1 How to use this template

1.1 Requirements and typesetting

This document is made to be compiled using X⅁LATEX or LuaLATEX and LATEX 2$_\varepsilon$. Do not compile it using `pdflatex` or very old LATEXversions, it will not work! The bibliography is generated with `biblatex` using the `biber` backend. If you work with the command line you need to execute the following commands:

```
$ xelatex Main.tex
$ biber Main.tex
$ xelatex Main.tex
```

Though this will generate a lot of auxiliary files everywhere so I recommend using `cluttex` instead:

```
$ cluttex -e xelatex --biber Main.tex
```

Which will run X⅁LATEX (or LuaLATEX) the right number of times and produce just a single PDF, while storing the auxiliary files somewhere else in a temporary directory.

1.2 Directory structure

The structure of this template in the filesystem is as follows:

```
$ tree --charset ascii Thesis
Thesis
|-- Main.bib
|-- Main.pdf
|-- Main.tex
|-- appendix
|-- figures
|   '-- galactic-empire.png
|-- parts
|   |-- abstract.tex
|   '-- howto.tex
'-- tex
    |-- docmacros.sty
    |-- hsrthesis.cls
    '-- titlepage.tex
```

There are two files called `Main` that may be renamed to something more pertinent to your thesis, though note that the new name cannot contain spaces. The `tex` directory only contains the "code", that means styling, macros and other special sources such as the title page. The content of your thesis should be stored under the `parts` directory, `Main.tex` should not contain any text except for the title, date and the authors. You are free to split your text into however many files you like, though I recommend one file per chapter. The `figures` folder and `appendix` are rather self explanatory, they contain the figures and the content of the appendix respectively.

1.3 The document macros file

In the style file `tex/docmacros.sty` there are a few help macros might be useful to electrical engineers. Feel free to look and tweak it to your liking. For now I have included:

- Probability operators `\E{X}` `\Pr{X}` `\Var{X}` ($\mathrm{E}\left\{X\right\}\Pr\left\{X\right\}\mathrm{Var}\left\{X\right\}$).

- Special functions `\sinc` `\argmax` `\argmin` ($\mathrm{sinc}\ \arg\max\ \arg\min$).

- Redefined the imaginary and real operator `\Re{z}` `\Im{z}` ($\mathrm{Re}\left\{z\right\}\mathrm{Im}\left\{z\right\}$) to look "normal", i.e. not with Fraktur font.

- Linear operators `\laplace` `\fourier` `\hilbert` ($\mathcal{L}\ \mathcal{F}\ \mathcal{H}$).

- Redefined vector notation `\vec{u}` ($\mathbf{u}$) to use a bold font, and a new unit vector macro `\uvec{u}` ($\hat{\mathbf{u}}$).

- Bold notation for the dot product `\dotp` ($\cdot$) and cross product `\crossp` ($\times$), to distinguish them from `\cdot` ($\cdot$) and `\times` ($\times$).

- Bold upright matrix notation `\mx{A}` ($\mathbf{A}$).