

The Affinity Program

William Clocksin, September 2022

Affinity is the name of a computer program written in Java and JavaFX between October 2020 and May 2022 by William Clocksin as one of the deliverables of the project *Understanding Spiritual Intelligence* funded by a grant from the Templeton World Charity Foundation to the International Society for Science and Religion, TWCF0542. The first deliverable release, **Affinity 1.0**, is a code listing that is published online as an object of study. **Affinity 1.0** is a working program, and can be executed by a suitable JavaFX environment. **Affinity 1.0** implements all the basic functionality intended by the theory, but with only a few examples of each component (components are types of value, social object, relationship, and more). Further releases will contain more components.

The **Affinity** program is being built as part of a project that is concerned with how intelligent systems might reason about the values and relationships that are most significant to them. Central to this concern is the concept of an *affinity*, the degree of an individual's opinion or belief about a proposition. Because individuals survive in communities, and the identity of an individual is partly or mostly determined by its interactions and relationships with others, we are interested in how affinities develop through relationships within the community. We describe the most significant values and relationships held by individuals and communities as *spiritual*, because they transcend basic functional values and physical relationships, and have potential for personal transformation and social impact.

The purpose of Affinity is to simulate a community of entities that possess certain *values* concerning *social objects*, and may engage in *relationships* with other entities. Entities are driven by a set of internal *narratives*, which are information bearing sequences extended in time. Narratives can be compared to small algorithms with a reduced control structure.

The deliverable consists of three files:

1. This document.
2. A .zip format file consisting of the **IntelliJ IDEA** project package containing the source code and libraries. After decompressing the .zip file, the source code can be found in the directory `./Affinity/src/affinity`.
3. A set of slides as a .pdf document that describes most of the internal representations and workings of the **Affinity** program. Reading that presentation is essential to gain an understanding of the program. The presentation also lists items for further work. It is intended to implement most of these items in future versions of Affinity to be delivered before July 2023.