

# Towards Swifter Interstellar Mail Delivery

Johanna Swift, Egon Stellaris, Oliver Liam

## Abstract

Recent advances in space-based document processing have enabled faster mail delivery between different planets of a solar system. Given the time it takes for a message to be transmitted from one planet to the next, it is estimated that even a one-way trip to a distant destination could take up to one year. During these periods of interplanetary mail delivery there is a slight possibility of mail being lost in transit. This issue is considered so serious that space management employs P.I. agents to track down and retrieve lost mail. We propose A-Mail, a new anti-matter based approach that can ensure that mail loss occurring during interplanetary transit is unobservable and therefore potentially undetectable. Going even further, we extend A-Mail to predict problems and apply existing and new best practices to ensure the mail is delivered without any issues. We call this extension AI-Mail.

## 1. Introduction

Our concept suggests three ways that A-Mail can be best utilized.

- First is to reduce the probability of the failure of a space mission. This problem, known as the Mars problem, suggests that the high round-trip time required for communication between Mars and Earth inhibits successful human developments on the planet. Thanks to A-Mail's faster-than-light delivery system this problem could be solved once and for all.
- As A-Mails are written using pen and paper, no digital technology is needed for short and long distance communication. This suggests a possibility of reducing the communication monopoly currently held by an entity known as the "internet". Our suggestion of A-Mail being responsible for postal delivery would reduce dependence on online services by delivering the vast majority of mail offline. Space is a place where drastic changes in methods of production and distribution can easily occur.
- Lastly, A-Mail is capable of performing high-level complex calculations. It is this capability that distinguishes A-Mail from traditional space mailers. This is an especially useful capability when planning long-distance space missions.

The delivery speed of an A-Mail can be determined through this simple formula:

$$v(t) = \lim_{t \rightarrow \infty} \int_0^t c \cdot \sqrt{t^2} dt$$

Building on the strong foundations of A-Mail, we extend our platform to predict problems and apply existing and new best practices to ensure the mail is delivered without any issues. We call this extension AI-Mail. AI-Mail is a new concept designed and delivered by artificially intelligent (AI) agents. The AI-Mail agents are intelligently designed to solve problems at various points in the delivery chain. These problems are related to targeting, delivery delay, tone of delivery, product information, product return, system crash, shipment error and more. AI-Mail provides a one-stop solution for A-Mail's shortcomings.

Table 1. A cool table.

Substance	Subcritical °C	Supercritical °C
Hydrochloric Acid	12.0	92.1
Potassium ...	24.7	24.7
Sodium Myreth ...	16.6	104

### 1.1. Proven technology

A-Mail has been under development for the past ten years and in the process has consolidated different space programmes. Over the course of the last year, our space P.I.s have already found over ten thousand lost letters. These letters had been drifting in space since the stone ages when they were originally mailed. Only now we had the technology to recover them. In this way, A-Mail technology has

already proven invaluable to human advancement and research, bringing us closer to our ancestors.

### 1.2. *Limitless possibilities*

Through A-Mail's *faster-than-light* technology, for the first time, humans have the capability to reach far away solar systems to find out whether we are, after all, alone in this universe. During our research, we have already established pen pal relations with at least three potential extraterrestrial living forms.

### 1.3. *Direct implications*

One of the most direct implications of A-Mail is the solution of the Mars problem. This means that people stuck on Mars can now finally watch football games live, a significant achievement on the grand scale of things. The complex communication interactions arising between Earth, Mars, and the +



Fig. 1. Visualization of the FTL Earth-to-Mars communication capabilities enabled by A-Mail.