# Improving Adoption Outcomes through Intelligent Matching Technology

WHITE PAPER

#### Abstract

Matching is the process of bringing together a child in need of adoption with qualified prospective parents. It is an important stage prior to arriving at an adoption decision.

Matching involves choice — a choice that may forever alter a child's life and that of an adoptive family. It is a responsibility typically assumed by a team of professionals dedicated to the protection and well-being of children, including psychologists, social workers and jurists.

Matching is a serious and complex task that may result in negative consequences for both an adoptive family and child if an unsuitable match is made.

This White Paper discusses how innovative information technology can significantly enhance the adoption matching process. Specifically, what it will show is that there is a need for a very high degree of sophistication in the matching logic of an information system to mirror the complex process that occurs naturally in human judgment and reasoning.

When designed and implemented correctly, intelligent matching technology can be very valuable, enabling more informed choices that lead to better outcomes and a more streamlined and transparent adoption process.

#### **Matching Conditions and Criteria**

Profiles of the prospective adoptive parents and children provide the basis for adoption matching. For example, Article 15 of the Hague Convention requires that the following information be included in a parent dossier:

- Identity of the applicants
- Legal capacity and suitability for adoption
- Personal and family situation
- Medical information
- Social environment
- Motives
- Ability to undertake adoption

Achieving a good match for an adoptive family and child requires weighing various criteria found in their profiles. For the prospective adoptive child, this may include the consideration of the following characteristics:

- Age
- Gender
- Temperament
- Personality
- Special needs (physical, psychological and emotional)

In some jurisdictions, agencies also may take into account:

- Religion
- Ethnicity
- Physical appearance
- Socio-economic status
- Hobbies and common interests
- Resources
- Environment
- Proximity to siblings
- Medical issues

There is, of course, considerable debate about what are acceptable and correct criteria. Dissenters insist it is often impossible to achieve "realistic" matches due to conflicting criteria and priorities.

On the other hand, a "good match" is argued to be a necessary prerequisite in the well-being, safety and security of a child. Compatibility between the adoptive family and child improves the likelihood of a positive outcome, as long as the criteria and conditions guiding the work of the professionals at the agency responsible for matching are established by a competent authority.

Currently, most jurisdictions use a combination of objective matching criteria (which relies to a degree on human judgement) and some level of subjective interpretation by competent professionals to arrive at a decision.

# Challenges

Uniting a child with a family can be a daunting task. There are so many variables to consider, and there is so much at stake. Agencies are constrained by both time and resources. The number of children in foster care waiting to be adopted continues to grow.

The adoption matching process relies on the child's, birth parents' and prospective parents' information, most likely stored in a computerized information system. Adoption professionals

arrive at a matching decision by weighing criteria from profiles of many children and prospective parents. While this is often undertaken with great care, the sheer amount of information to be considered can be overwhelming. Sifting through all the profiles against various sets of criteria can be tedious and prone to human oversight and error.

Using an information system to guide the matching process can make a world of difference.

# **Search and Matching Concepts**

If prospective parent and child information reside in an adoption information system, it could be assumed that some form of database search would provide meaningful results.

Searching is generally considered the process of selecting records from a database that meet given criteria. All given criteria must be true to be part of the results. By being less specific – choosing fewer criteria – a larger set of results is produced. If the search terms are too specific, they may not produce results. There is always some kind of trade-off due to specificity.

# **Traditional Search and Reporting**

Traditional search methods – such as trying different search terms – is usually ineffective in finding a good match. The results can be literally "hit-or-miss" depending on the power of the search tools used. What actually occurs in matching goes beyond what a search engine typically can provide. We all have experienced this phenomenon when surfing the Internet.



Result: No Match

If searching is a process of finding suitable information, then matching is a more sophisticated method of searching – it is finding the best-suited information. This is a very important distinction.

Matching requires the ability to perform:

- Non-exact search (approximation) which may involve ranges and scoring
- If certain criteria may or may not be met completely, then a score can be calculated based on "proximity" to an exact match
- Bi-directional matching, where the criteria of both parties, child and parent, are taken into account
- Weighting, where some criteria are given more importance than others
- Iteration, the ability to drill-down further based on a subset of prior results.

Intuitively, adoption professionals use some or all of the above techniques to best match a child with a prospective parent. Unfortunately, this often occurs outside the adoption information system because standard reporting tools fall short and are too simplistic.

Matching requires complex information system processing to mirror the reasoning that we as humans take for granted; specifically, being able to weigh a myriad of factors to arrive at a "best fit". However, when this type of technology is designed and implemented effectively, it can be put to very good use.

#### **Intelligent Matching**



Score: 10/13 = 79%

Weighting of preferences enables quicker and easier ranking to determine best fit based on parent or a child's needs. Parent and child matching results can be ranked.

# **Benefits of Intelligent Matching**

Intelligent matching technology can benefit adoption agencies in numerous ways:

- Reducing the time and effort required to sort through vast amounts of information to find a best fit, resulting in greater confidence in decisions.
- Improving accountability by reporting matching results in a structured, factual manner that can be replicated. Choices and decisions are defensible and transparent.
- Eliminating the potential for oversight, guesswork and subjectivity that occurs when matching relies on human evaluation of complex criteria. The quality of decisions is enhanced, not compromised.

Ultimately, the result is a better outcome for children and parents, not only because a structured approach is used to assess compatibility, but because criteria are applied consistently and thoroughly to arrive at an informed adoption decision.

### Summary

Using an information system to help support adoption matching makes a lot of sense. Yet, a matching system needs intelligent and sophisticated capabilities in order to replicate the type of thinking used in human judgment and improve upon that.

Bi-directional and approximate search, ranges, iteration, scoring and weighting are some of the features which distinguish intelligent matching. This type of intelligent matching capability enables relevant matches to be presented based on "best-fit" criteria in a manner that is objective, consistent and insightful.

Adoption professionals, parents and children stand to benefit greatly from intelligent matching technology that can lead to improved outcomes.

In particular, agencies strapped for time and resources will benefit from a streamlined process which helps unite waiting children and adoptive families more quickly, while reducing chance and guesswork.

Sohema is a full-featured and flexible adoption management system used by governmental and non-governmental agencies. A comprehensive range of activities are supported including recruiting, client and child tracking, birth father and family reunion registrations, outcomes reporting and more.

Uniting children with permanent families is made possible by intelligent matching capabilities which "best-fit" the needs of prospective parents and children. This powerful Sohema feature provides the ability to:

- Perform bi-directional searches (parent to child, child to parent)
- Define an unlimited set of criteria and profiles
- Specify ranges in criteria definition
- Assign scoring with approximate results
- Perform multiple search iterations on search subsets
- Weigh individual criteria

As a Web-based, hosted solution, Sohema can be implemented quickly, easily and cost effectively, enabling almost anywhere, anytime access via a Web browser through a secure encrypted connection by all stakeholders.

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