Open Source Solutions
for a Master Person Index

Battle of the Bands
Picnic Day
UC Davis
April 2005

Will Ross & Stuart Turner
Open Source Health Care Summit
SCaLE 5x / LAX Westin

[c]

Overview of the OpenEMPI Project

OpenEMPI seeks to provide an open community to develop and to critically evaluate open source solutions for use as an Enterprise Master Person Index (EMPI)

- Articulate an accessible framework for development of open source MPI in any computing environment (J2EE, PHP, .NET, etc.)

- Contribute meta-analysis useful for open source MPI implementations on any computing platform

- Seek recommendations for a standards based approach towards development of an EMPI

- Aim for a structured evaluation process

Open Source MPI Projects

project	code	sponsor
OpenEMed	Java	*Public Project (USA)*
OpenHRE	Java	Browsersoft / Connecting for Health
CDX Gateway	.NET	CSC / Connecting for Health
OHF	Java	IBM / Eclipse / IHE
Febrl	Python	*Public Project (Australia)*
OpenRHIN	Java	California HealthCare Foundation

http://openempi.org

Open Source MPI Projects

- **TeleMed** built by Los Alamos National Labs in 1990s

  - Based on Object Management Group distributed object specifications

  - Renamed **OpenEMed** in 2000

  - J2EE environment

  - Available on Sourceforge

http://openemed.org

Open Source MPI Projects

- **<u>OpenHRE</u>** built by Browsersoft, Inc. in 2004 for the Mendocino SHARE project
    - v 0.1 released August 2004 showing a basic health information exchange services
    - v 0.5 released February 2006 for Connecting for Health demonstration of a Record Locator Service
    - v 1.0 released January 2007 for NHIN Prototype Architecture
    - J2EE environment

http://www.openhre.org

Open Source MPI Projects

- **<u>CDX Gateway</u>** built by CSC for the Massachusetts SHARE project as part of the NHIN Architecture Prototype

    - Version 1.0 released January 2007 for the NHIN Prototype Architecture

    - Runs in a .NET 2.0 Framework

    - Download as is, no support available from CSC

https://ehr.consult.csc.com/cfh/code/download.aspx

Open Source MPI Projects

- Eclipse **Open Healthcare Framework** (OHF) plugins developed by IBM for the NHIN Architecture Prototype

  - Based on the **Integrating the Healthcare Enterprise** (IHE) developed by HIMSS for the annual Connectathon

  - In IHE, **PIX/PDQ** profiles enable patient queries, uploads and merges

  - IBM plugins for Eclipse OHF implement PIX/PDQ client actor profiles

PIX/PDQ

http://wiki.eclipse.org/index.php/OHF_IHE_Client_plugins

Open Source MPI Projects

- **Febrl** (Freely extensible biomedical record linkage) is developed by a collaboration between the Data Mining Group at the Australian National University (ANU) and the New South Wales Department of Health

  - Implementation of the Fellegi and Sunter probabilistic matching method

  - Still in development, not in production use

  - Written in Python

http://datamining.anu.edu.au/projects/linkage.html

OpenEMPI Website

- Launched by **Stuart Turner** in January 2007
- Additional editing by **Will Ross**
- Three active pages
    - Home page
    - Links to known projects
    - Bibliography
- **Collaborators wanted**

http://www.openempi.org

Home Page

Open EMPI | An Open Source Master Patient Index for Healthcare

Blog   About   Resources   Code   Literature   Glossary   RSS   Site Admin

About

OpenEMPI seeks to provide an open community towards development and critical evaluation of open source solutions for use as a community or enterprise master patient index ("MPI").
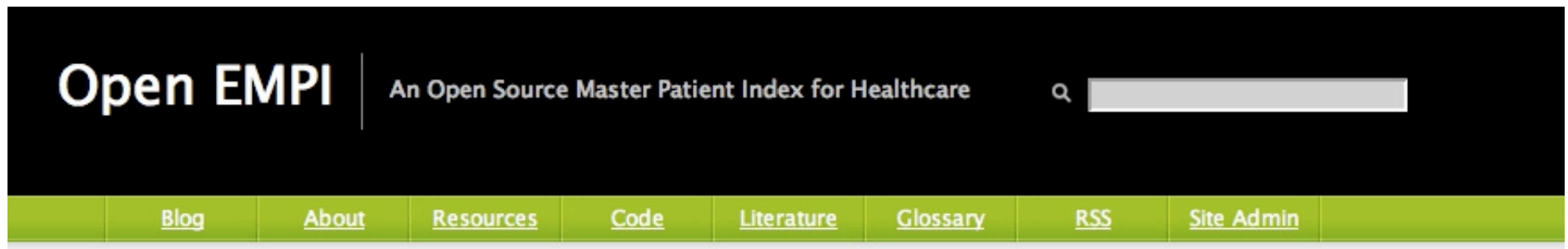
Key goals include:

- To articulate an accessible framework for the development of open source MPI solutions in any relevant computing environment (e.g. Java EE, PHP, .NET, etc.)
- Contribute towards useful open source MPI implementations for any relevant computing platform
- Seek critical appraisal of existing components and recommendations for a standards based approach toward the community development of an MPI. This should include a structured evaluation process, with meta-analysis, of production open source MPI solutions.

Contributors:

- Will Ross, Mendocino Informatics
- Dr. Stuart Turner
- *Your Name Here?*

Edit this entry.

Links to MPI Projects

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Resources

Links

Healthcare Services Specification Project

Summary: "Recognizing the need for specifications for services to support healthcare IT as part of national infrastructures (such as US NHII and Australia's HealthConnect), Health Level Seven and the Object Management Group have forged this agreement to collaborate to the advantage of the health domain sector. This charter outlines high-level distribution of responsibilities and separation of concerns specifically related to this services effort."

Object Management Group (OMG) Healthcare Domain Task Force (DTF)

Summary: "The OMG Healthcare Domain Task Force is actively engaged as part of a joint collaboration with the Health Level 7 (HL7) Standards Group in producing industry healthcare SOA standards. The Healthcare Services Specification Project (HSSP) is the moniker under which these join activities are occurring.

OpenEMed

Summary: OpenEMed software has been tested in two separate implementations and demonstrate the "usefulness of the specifications of the Object Management Groups' Healthcare Domain Task Force" as mentioned above.

MPI Literature Listing

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Literature

Matching Patients and their Data: Background Paper
US Department of Health & Human Services, Health Information Technology (HIT)
Date: Unknown | Author: Unknown | File Type: PDF

RIDE (Roadmap for Interoperability of eHealth Systems): Patient Identifiers
Date: | Author: | File Type: Microsoft Word

Standard Guide for Properties of a Universal Healthcare Identifier (UHID) [Document # E 17140-0]
(purchase only)
November, 2000 | Author: ASTM International (an SDO) | File Type: PDF, 13 pages

Analysis of Unique Patient Identifiers, Final Report
Publication Date: 24 Nov 1997 | Author: Soloman I. Appavu, Department of Health and Human Services

Analysis of Approaches to Uniquely Identifying Patients in Massachusetts
2004 | Author: Massachusetts Health Data Consortium | File Type: PDF (428KB)

Any Questions?

"San Francisco, 137 Miles"
Highway 128 meets the Navarro River
Mendocino County, California