



Friday, May 16, 2008
2:00 pm – 3:00 pm
COOK 31 18 A&B

Direct-to-Consumer Personal Genome Service: A review of its nature, availability and public perception

Cheryl Lee – Masters Student

ABSTRACT:

Direct-to-Consumer (DTC) personal genome service is a burgeoning business where a novel type of genetic testing service is provided. The business commercializes the advanced technologies of genome-wide profiling of genetic variants used by researchers to find association of these variants with common, yet complex diseases, health-related conditions, or non-health related traits. Furthermore, the businesses advertise and sell services directly to the general public; the consumer orders the test directly and receives the results without the involvement of an independent health care provider serving as an intermediary. Following the first official launch of the service on November 6, 2007, a handful of startups rushed into the market. The highly science-and-technology-based industry appears to be a controversial entity. Pros and cons are prevalent in the press, blogs and the academic community.

This project aims to systematically examine the nature of DTC personal genome service in terms of the science and technology behind the service, potential benefits and disadvantages, appropriateness of the service evaluated by the relevant professional societies, and governmental regulation and oversight with respect to consumer protection. In addition, a preliminary review of the availability of and the public's perception of the service is conducted to explore future research topics on the ethical, economic, legal or social impact entailed by the emergence of the business.

Research Advisor:

Simon Lin, Feinberg School of Medicine

Independent Component Analysis of fMRI Acupuncture with attention to Auditory and Visual Cortex

Omar Akbik – Masters Student

ABSTRACT:

After introducing the basic mechanics of fMRI and reviewing the methodology of acupuncture, Independent Component Analysis (ICA) will be reviewed and applied to the data set. The strengths and weakness of such an analysis for this particular type of fMRI treatment will be reviewed as well non-acupuncture treatment. The discussion will conclude with review of the results, areas of activation, as well as suggestions for the next stage of experiments.

Research Advisor:

Todd Parrish, Department of Radiology
JiPing Wang, Department of Statistics