Introduction to MindGenomics

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What is MindGenomics? (1)

Why?

A method based on industrial psychology,
   mathematics, and DataMining,
which can be used to promote
   products, services, ideas, opinions ...

What is the essence?

If one likes to sell,
   one has to listen to the needs of the prospect!

What is MindGenomics? (2)

Company assessment!

1. A firm with potentials is approached,
   and their capabilities are estimated,
   using methods from company auditing
   and financial engineering.

2. A product is selected
   with potentials for horizontal segmentation;
   the question is, how to figure out what the market needs!

What is MindGenomics? (3)

Data gathering!

3. Based on the principles of industrial psychology,
a set of N questions is generated,
which penetrate deep into the needs
of the target group of individuals.

4. A polling partner is engaged
to approach the target audience,
and to bring back the form filled in,
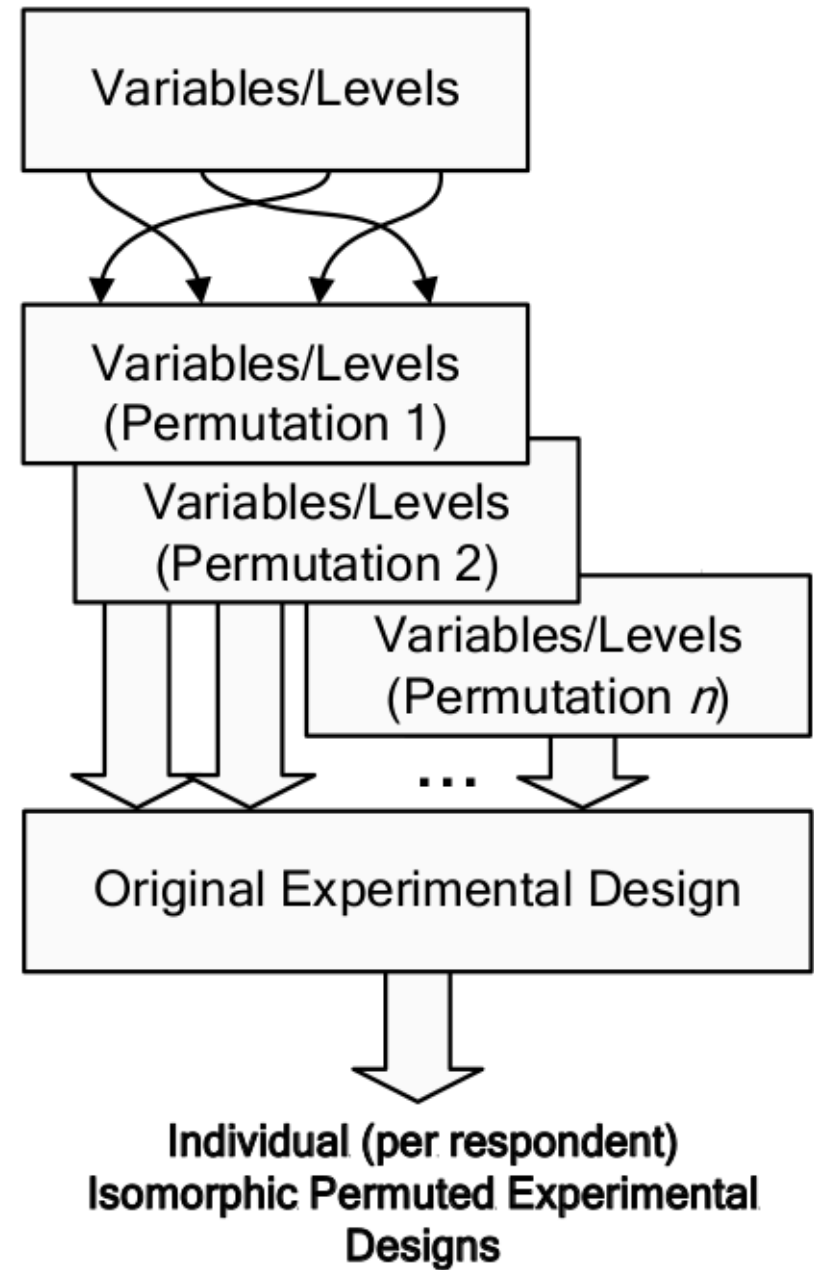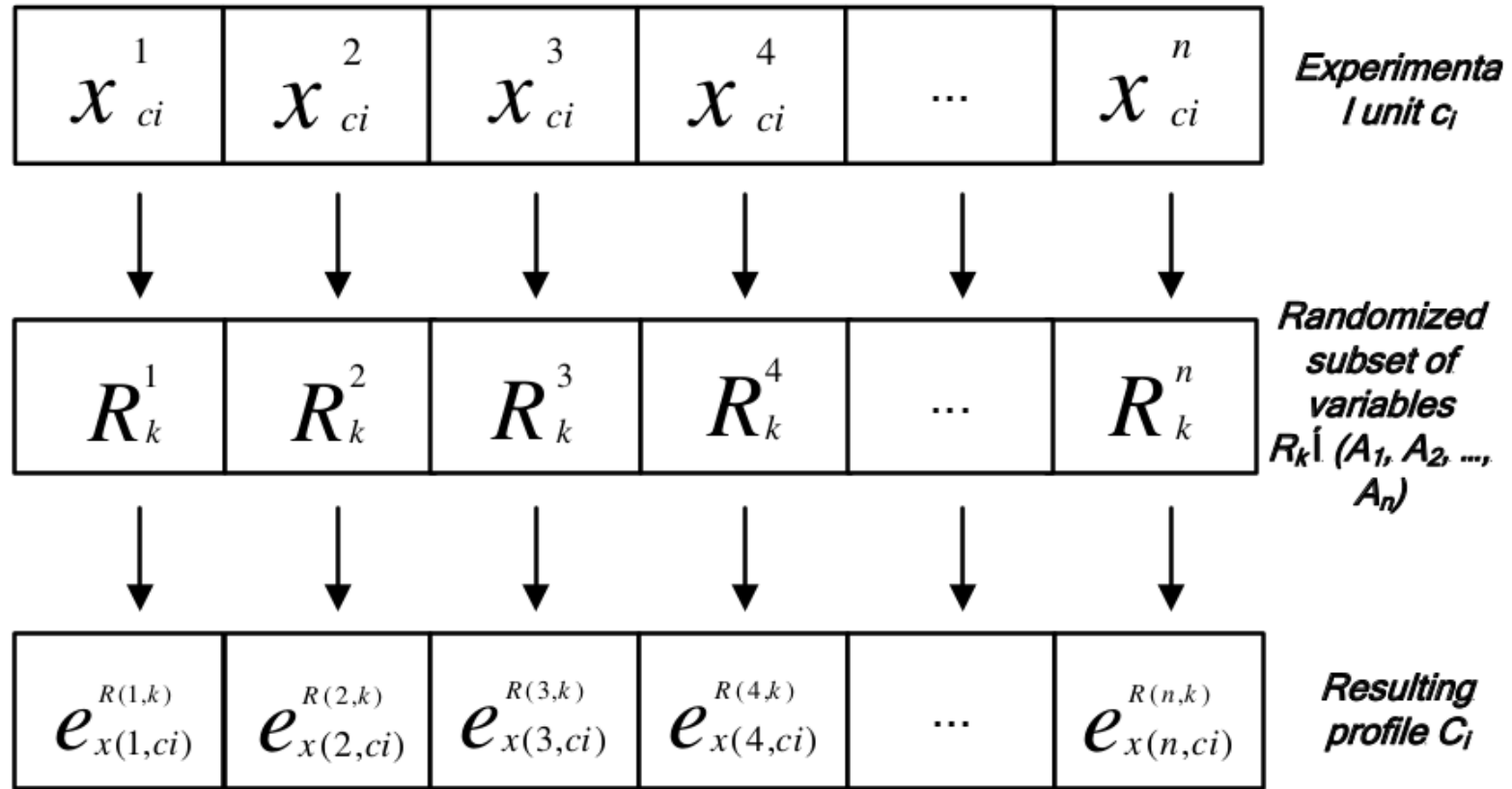which assumes the existing of a small motivation item.
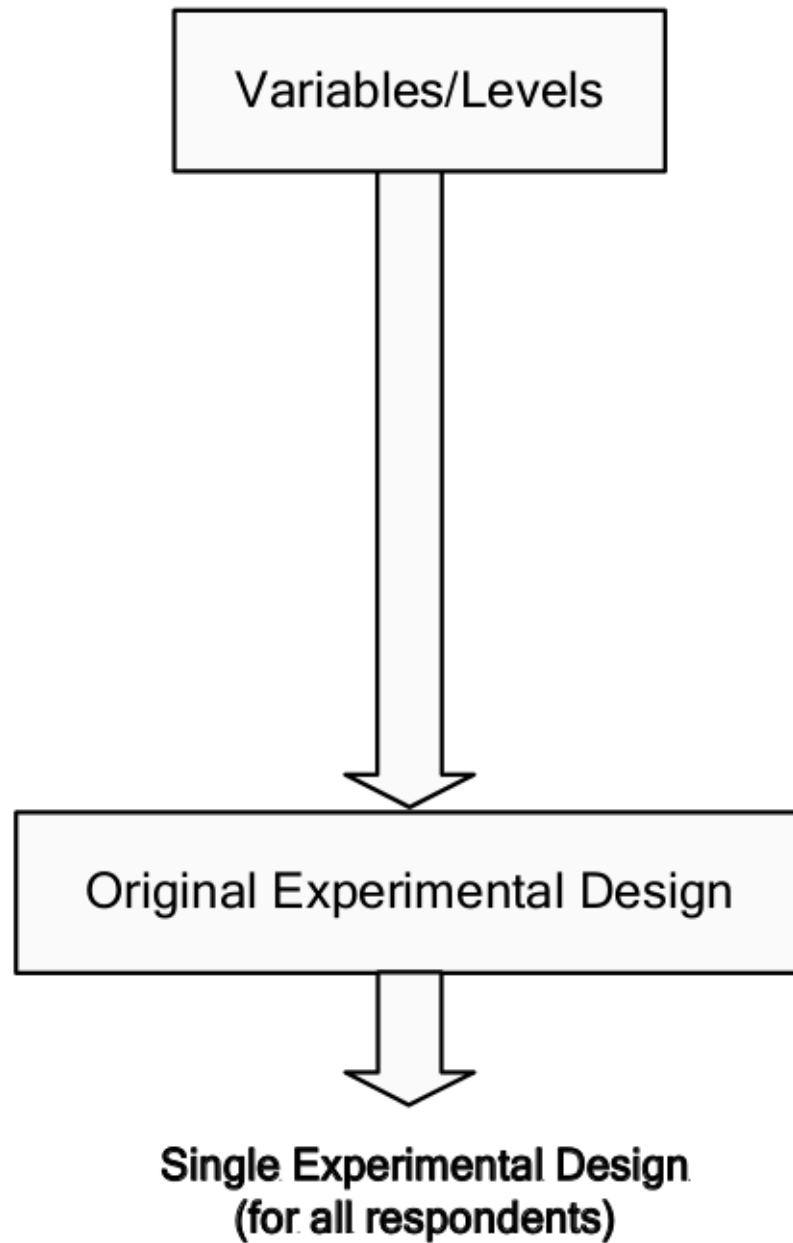
Figure 1. Conceptual model of traditional experimental designs approaches (on the left) and proposed individual isomorphic permuted experimental designs (IPED) (on the right).

What is MindGenomics? (4)

Data analysis!

5. The results of the poll are analyzed,
   using a proprietary datamining software,
   based on sophisticated math,
   and recommendations are made
   (for the essence and the form)

6. Crucial Step: Analysis!

$$x^1_{ci} \quad x^2_{ci} \quad x^3_{ci} \quad x^4_{ci} \quad \cdots \quad x^n_{ci}$$

Experimental unit c_i

$$R^1_k \quad R^2_k \quad R^3_k \quad R^4_k \quad \cdots \quad R^n_k$$

Randomized subset of variables $R_k Í (A_1, A_2, ..., A_n)$

$$e^{R(1,k)}_{x(1,ci)} \quad e^{R(2,k)}_{x(2,ci)} \quad e^{R(3,k)}_{x(3,ci)} \quad e^{R(4,k)}_{x(4,ci)} \quad \cdots \quad e^{R(n,k)}_{x(n,ci)}$$

Resulting profile C_i

x^l_{ci} is the experimental unit c_i for variable l.

R^n_k is a variable placeholder j in randomization k

$e^{R(n,k)}_{x(n,ci)}$ is a level in the profile C_i, where $R(h,k)$ is the actual variable assigned to the placeholder h during randomization k

$x(h,ci)$ is the level number in the variable $R(h,k)$ corresponding to the experimental unit c_i

Figure 2. Creation of isomorphic permuted experimental designs. x^l_{ci} is the experimental unit c_i for variable l. With a set of variables $(A_1, A_2, ..., A_n)$, the experimental units are applied to an individually randomized

What is MindGenomics? (5)

Process analysis!

7. The life time monitoring of the process
   is absolutely mandatory.

8. Applications span from science and engineering
   to humanities and arts!

What are the alternatives to polling?

9. SocialnetworksDataMining

10. NeuroEconomyMindGenomics

Goran Photography

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