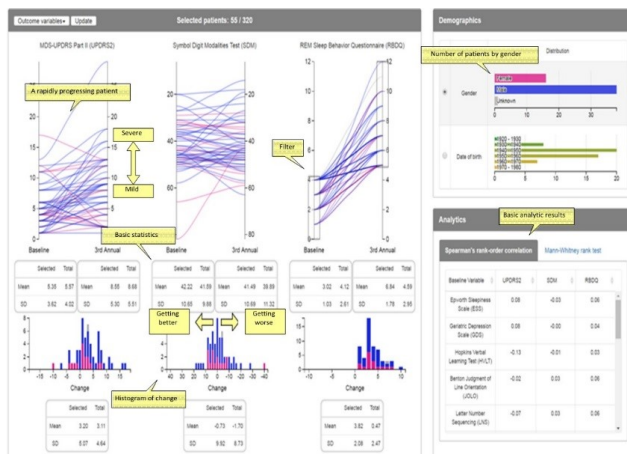


TECHNOLOGY

A Data Visualization Tool to Explore Multidimensional Clinical Datasets

OVERVIEW

Winnow™ is an innovative tool to efficiently sift through arrays of longitudinal data, identify patterns, generate hypotheses, and subject these hypotheses to rigorous statistical analysis. It has an intuitive, interactive and insightful platform- valuable to all stakeholders including scientists and clinicians, and flexible for application to a broad range of datasets with diverse components. **Winnow™** currently consists of **three main panels to detect patterns of disease progression: (a) an Outcomes panel, (b) the Demographics panel, and (c) the Analytics panel**. The widgets included in (a) and (b) allow interactive filtering of patients and, through the brushing and linking of widgets, the filtering applies simultaneously to other widgets. Winnow can also explore subgroups to investigate and analyze specified patient subsets to compare baseline characteristics of disease progression



APPLICATIONS

In health care, the expanding scope of clinical and biologic markers of disease in large patient cohorts results in an increasing complexity and quantity of data. These new insights and opportunities have led to new challenges: 1) models of disease progression need revision to encompass progression of multiple diverse components, 2) up-to-date methodologies are needed to visualize patterns in big datasets with multiple, complex domains, and 3) novel quantitative tools are needed to analyze disease progression based on diverse domains and biologic markers. Advanced analytics that can be applied to patient profiles could help identify high-risk patients while supporting improved selection and matching of patients for specific disease-management and preventive care programs. Such analyses could also provide metrics to measure the success of such programs. Additionally, the ability to analyze disease patterns provides valuable insight to pharmaceutical and medical products companies to guide strategic decisions for R&D investments and improve clinical trial design. The predictive modeling market for advanced analytics in 2015 was about \$2.0 billion and is expected to reach nearly \$2.2 billion by 2020 at a CAGR of 1.5%.

STAGE OF DEVELOPMENT

- Testing and design for other data sets
- Developing additional user features and broadening statistical tools

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Additional Information

INSTITUTION

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PATENT STATUS

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LICENSE STATUS

Available for licensing and commercialization

CATEGORIES

- Software + Algorithm
- Healthcare
- Information Technology
- Genomics/Proteomics/Database

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ATTACHMENTS

-  [Download UMB Website Invention Summary LS-2016-024 061517.pdf](#)

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