The Future of Spreadsheets in the Big Data Era

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The Future of the Spreadsheet in the Age of Big Data

- The Success of the Spreadsheet
- Challenges with current Spreadsheet technology
- Drivers of Change
- Directions of Change
- Research Directions
- Implications for Users
The Success of the Spreadsheet
The Success of the Spreadsheet

Ubiquity

An Open Box

Unconstrained Canvas

Mental Model
The Success of the Spreadsheet
The Success of the Spreadsheet
The Success of the Spreadsheet

Development

Accessible End user Programming
Integrated Development Environment
Formalise A Process
The Success of the Spreadsheet
Challenges with Spreadsheets
Challenges with Spreadsheets
Challenges with Spreadsheets

- Hidden Errors
- Ubiquity
- An Open Box
- Unconstrained Canvas
- Mental Model
- Model Scenarios
- Test Scenarios
- Modelling
- Development

Challenges with Spreadsheets
Challenges with Spreadsheets

Unconstrained Canvas

Adaptability

Formalise A Process
Challenges with Spreadsheets
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Challenges with Spreadsheets
Drivers of Change
Drivers of Change

- Online Collaboration
- Computer Literacy
- Tablets, Phones, Laptops

Enterprise Needs

Changing Working Patterns
Drivers of Change

DATA

The Rise of Big Data

The Heterogeneity of Data

Internet of Things

Unreliable Data

change
Drivers of Change
Drivers of Change

Data Dashboards

Business Intelligence

Enterprise Needs

Specialized Competitors

Changing Working Patterns

Cloud Computing

Software as a Service

App Ecosystems
Drivers of Change

- Regulatory Risk Awareness
- Enterprise Spreadsheet Management
- Data Dashboards
- Business Intelligence
- Online Collaboration
- Enterprise Needs
- Specialized Competitor Information
Directions of Change
Directions of Change

Auditing Tools

Regulatory Risk Awareness

Enterprise Spreadsheet Management
Directions of Change
Directions of Change

Cloud Computing

Software as a Service

App Ecosystems

The Rise of Big Data

The Heterogeneity of Data

Unreliable Data

Cloud based Analysis

External Big Data Analysis

Heterogeneous Unreliable Data
Directions of Change

- The Heterogeneity of Data
- External Big Data Analysis
- Heterogeneous Unreliable Data
- Data Analysis Tools
- Data Fusion
- Unreliable Data
Research Directions
Research Directions

Enterprise Needs

Online Collaboration

Computer Literacy

Changing Working Patterns

New Form Factors

Tablets, Phones, Laptops
Research Directions

- Support End user Programming
- Refactoring Tools for Spreadsheets
- Audit and Identify Errors
Research Directions

Support End user Programming

Refactoring Tools for Spreadsheets

Audit and Identify Errors

Refactoring Tools for Spreadsheets

Audit and Identify Errors

Structuring Spreadsheets

Enable Code Reuse
Implications for Users
Supporting Users

- The Same Model
- Working with Data
- Better Support
- Changing way of working