News Timeline: A Visual Analysis Tool for Heterogeneous Text Data

Roy G. Biv* Starbucks Research Ed Grimley[†]
Grimley Widgets, Inc.

Martha Stewart[‡]
Martha Stewart Enterprises
Microsoft Research

ABSTRACT

{TODO: Add the abstract after complete the summary}

Index Terms: K.6.1 [Management of Computing and Information Systems]: Project and People Management—Life Cycle; K.7.m [The Computing Profession]: Miscellaneous—Ethics

1 Introduction

Exploring heterogeneous data from different sources can be complicated and error pruning if not well dealt with hidden relationship between entities or possible data conflicts between materials. In the MC1 of VAST Challenge 2014, to extract relationship between POK and GAStech we need to extract important people from different sources of file, e.g. employee resume, email, research report, and a huge volume of news with conflicts. In our design of the analysis tool News Timeline. {TODO: Choose a better name for our tool}, we integrate different kinds of source files into a timeline-based view, providing a quick overview for user to choose important file to focus for efficiency.

In this poster, we will first introduce our design consideration of visual analysis tools for heterogeneous data and then introduce how we use these tools to analyze MC1 data to solve these problems.

2 DESIGN PRICIPLES

Data provided in MC1 mainly includes 845 news articles, 35 resumes, employee records, email headers and some other report on both POK and Kronos. These data have the following features: 1. Data from

3 VISUALIZATION TOOLS

3.1 Resume reader

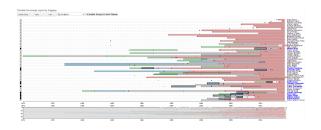


Figure 1: Resumer viewer

Resume reader is the first paragraph. ¹.

3.2 News timeline

{TODO: Finish description for newstimeline.}

*e-mail: roy.g.biv@aol.com

†e-mail:ed.grimley@aol.com

‡e-mail:martha.stewart@marthastewart.com

3.3 Email Reader

{TODO: Finish dealing with email reader.}

4 DATA EXPLORATION

 $\{TODO: Describe how do we explore data sources to extract details.\}$

5 CONCLUSION

 $\{TODO: What do we achieve with our tool.\}$

ACKNOWLEDGEMENTS

We have special thanks to Miss Dong Liu for her dedicated exploration with raw materials to inspire our design on visualization tools.

REFERENCES

- G. Grinstein, D. Keim, and M. Ward. Information visualization, visual data mining, and its application to drug design. IEEE Visualization 2002 Course #1 Notes, October 2002.
- [2] G. Kindlmann. Semi-automatic generation of transfer functions for direct volume rendering. Master's thesis, Cornell University, 1999.
- [3] Kitware, Inc. The Visualization Toolkit User's Guide, January 2003.
- [4] M. Levoy. Display of Surfaces from Volume Data. PhD thesis, University of North Carolina at Chapel Hill, 1989.
- [5] W. E. Lorensen and H. E. Cline. Marching cubes: A high resolution 3d surface construction algorithm. In *Computer Graphics (Proceedings of SIGGRAPH 87)*, volume 21, pages 163–169, July 1987.
- [6] N. Max. Optical models for direct volume rendering. *IEEE Transactions on Visualization and Computer Graphics*, 1(2):99–108, June 1995.
- [7] G. M. Nielson and B. Hamann. The asymptotic decider: Removing the ambiguity in marching cubes. In *Visualization '91*, pages 83–91, 1991.
- [8] C. Ware. Information Visualization: Perception for Design. Morgan Kaufmann Publishers, second edition, 2004.

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