

The GovStat Content Delivery Template (CDT) for Creating Explanatory Animations

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Abstract

In this demonstration we present an advanced prototype of a content delivery system that we have developed to assist in the explanation of government statistical terms. We describe the structure of the content template, its parts, and the context in which the template may be used. We conclude with an explanation and brief discussion of the technical requirements and restrictions of the system. We will demonstrate the use of the system for organizing and presenting glossary definition animations and other content presentations.

1 Introduction

Federal statistical agencies are placing data and other publications on the web, putting complex statistical information within reach of many consumers who have little experience with statistics, and who may not understand the statistical terms used by the agencies. There is a gap between what consumers know and what they need to know to successfully use these rich sources of information. The GovStat Project¹ is a multidimensional research effort that seeks to bridge this knowledge gap on both theoretical and practical fronts. Our goal is to help users “find what they need, and understand what they find,” and to create a Statistical Knowledge Network (SKN) of tools, interfaces, databases, business rules, and people, all oriented towards that goal. GovStat is a collaboration between UNC-CH School of Information and Library Science, the University of Maryland Interaction Design Lab, and is funded by NSF, EIA 0131824.

The Statistical Information Glossary (SIG) is a component of the SKN that provides definitions and explanations of statistical terms and concepts. Definitions are presented contextually, within the user’s task, rather than in an isolated list. There are many forms of contextual help: “tutorial, FAQ, reference, mediated assistance, customized on demand, and animated demonstration.” (Marchionini, 2003) The GovStat SIG combines several of these into a single presentation system to deliver just-in-time definitions and animated explanations.

2 Description

The Statistical Information Glossary definitions are developed by statistical specialists who may have little training in instructional design. Therefore, we have developed a Content Delivery Template (CDT), a simplified authoring and presentation framework. The CDT allows content creators and subject experts to develop pieces of an explanation autonomously, and then integrates them into a single presentation. The framework requires content to be placed into a defined content structure; however there is significant flexibility within the sections of the structure. The CDT, in conjunction with the SIG and the GovStat Ontology, can deliver both general and specific definitions of statistical terms (e.g., *index* and *Consumer Price Index*) enabling consumers to choose the most helpful level of generality for the definition. The CDT is designed to be used within the context of a consumer’s information-seeking task. The explanation

¹ <http://www.ils.unc.edu/govstat> will provide you with an overview and a list of papers and projects that are a result of GovStat

does not separate the consumer from the focus of the task, generating a swift, on-demand, customized explanation will help them make better use of the statistical information on the website.

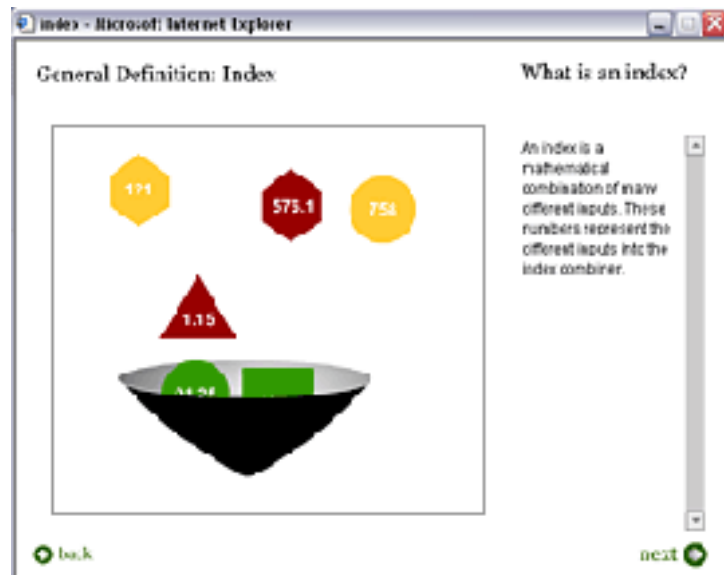


Figure: A view of the CDT displaying the general definition of 'Index'

3 Technical Implementation

The CDT is currently implemented in Flash MX, and relies on ActionScripting to control the progression of the presentation. The CDT separates structure and content, which allows expanded creative control and easier maintenance. Many different authors are able to present their definitions in a single sophisticated interface. The CDT is defined by three elements: the template, a text file, and the animated segments. The template populates the various sections of the CDT from the text file and animation segments by defining variables within the framework. This templated arrangement enhances otherwise separate pieces of content; the sum is greater than its parts.

For SIG explanations, the text file has seven parts: a title, a question illustrating the assumed information need, a definition, and four optional variables that are used in tandem with the animations to explain or define the concept. The text file is a list of variable keys and associated values. This is a simple file that can be written in any text editor. The animated segments, however, are more involved. Each animation is an independent Flash movie that is loaded dynamically into the template from variables set in the initial frame of the CDT. Each segment communicates its state to the template. When a segment is complete, it triggers a cascade of actions that result in a signal to the user to continue or review the segment. Each animation must be self-contained; it cannot transverse the template's content divisions, even though it is often convenient to do so. This slight inefficiency is counterbalanced by the control gained by standardization.

Future explanations will include business rules (guidelines for comparing or manipulating various statistics), and illustrations of the life cycle of a statistic.

References

Marchionini, G., et.al. "Portal Help: Helping People Help Themselves Through Animated Demos." 2003. Available at <http://ils.unc.edu/ils/research/reports/TR-2003-01.pdf>