Chapter 10
The Quest for Clarity:
How Visualization Improves the Usability and User Experience of Contracts

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ABSTRACT

In today's networked economy, contracts are everywhere. Many of them are watertight and legally perfect documents attempting to refer to every conceivable contingency. For people expected to use or comply with them, such contracts are often difficult to read, comprehend, and/or implement. As an alternative to the current predominantly legal and textual approach, the authors propose a user-centered, visualized approach aimed at better usability and easier implementation. Both consumer and commercial contracts should be communicated in simpler and more user-friendly ways, and we believe that visualization can play a fundamental role in achieving this. This chapter introduces the concept of contract visualization and some early examples produced in this novel field. Results obtained in the first year of a five-year research project, carried out in collaboration with a partner company, indicate preliminary confirmation of positive effects in improving contract usability and related user experience through visualization.

INTRODUCTION

When we hear the words *visual analytics*, what immediately comes to mind is sophisticated computational tools, large datasets, algorithms and digital visual interfaces, all of them playing their part in generating images to represent complex data structures that humans will otherwise have difficulty interpreting. This paper directs attention to the utilization of visualizations in analyzing and communicating complex information using a more 'handcrafted' approach.

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Depending on whether you ask a computer scientist or a graphic designer, information design means a quite different set of practices and outcomes. One of the Authors of this chapter is a trained graphic designer who is fascinated by the idea of graphic design as a service, a way of displaying information and knowledge in a human-centered, simple and engaging manner.

Many areas of human social life are regrettably suffused with complexity, bureaucracy, dogmatic traditions and a lack of clear communication. One of these areas is contracts and contracting. The other Author of this chapter, a legal practitioner and long-time pioneer in crossing the boundaries of traditional law, has many years of experience in this field, and has always advocated the use of contracts to achieve business success and prevent problems, aims which require simplification and clarity.

The topic of this chapter comes from a genuine desire to conduct research in a multidisciplinary way in order to tackle a specific problem–contract complexity–that has negative effects on both consumers and private and public organizations. In addition to the traditional *reactive* legal perspective on contracts being minimized, other values from a range of disciplines enter the picture: efficiency, effectiveness and value (from business research), promoting successful outcomes, preventing problems, and balancing risk with reward (from *proactive* law and proactive contracting) (Siedel & Haapio, 2011), and user-centeredness and communicativeness (from design research). The novelty in our research is the focus on simplifying knowledge transfer and enhancing shared understanding in contracting by introducing visualizations and elements of information design into the contracting process and documents. We define this research area as *contract visualization.* In terms of sorting information in the belief that complexity can be made understandable and clarity can be reached through essential, rigorous abstraction (Irwin, 2002), it shares the goals of information design. Contract visualization can also be seen as a subset of the wider research area of knowledge visualization, which can be defined as the creation and transfer of knowledge by visualizations with or without the help of a computer (Burkhard, 2005a), with the aim of supporting cognitive processes in generating, representing, structuring, retrieving, sharing and using knowledge (Tergan, Keller, & Burkhard, 2006).

The benefits of visualization in supporting evidence analysis, explanation, and reasoning have been extensively described in the literature, especially by Tufte (1983, 1990, 1997, 2006), while other authors have begun investigating the possibilities of applying visualization and collaborative, co-located visualizing activities to managerial and organizational practices (e.g. Bresciani, Eppler & Tan, 2011; Roos, Bart & Statler, 2004; Eppler & Platts, 2009; Platts & Tan, 2004). These previous theoretical contributions, together with abundant evidential knowledge from the field of graphic design, constitute the basis for our hypothesis that beneficial results can be expected to flow from the application of visualization in contracts.

Even though visualizations started appearing in legal and contractual documents in recent years, very little research has been conducted so far and the work that has been done has not been systematic. This book chapter has three goals: to define the theoretical motivations behind contract visualization and the practical problems it seeks to tackle, to introduce an overview of the examples of early legal and contract visualizations that inspired our research, and to present the results of an experimental evaluation that appears to confirm the positive effects of visualization on the usability and user experience of contracts.