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## Visualization: Seeing Contracts for What They Are, and What They Could Become

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# VISUALIZATION: SEEING CONTRACTS FOR WHAT THEY ARE, AND WHAT THEY COULD BECOME

Thomas D. Barton,<sup>\*</sup> Gerlinde Berger-Walliser,<sup>\*\*</sup> and Helena Haapio<sup>\*\*\*</sup>

## ABSTRACT

*Commercial contract users read their contract documents infrequently, and understand them inadequately. The disincentives may be several: contract language may be too technical and too long; contracts may be organized around ensuring or avoiding legal liability rather than providing guidance toward performing contractual responsibilities; or contracts may rarely include frameworks that would prompt the parties to explore new opportunities. For whatever reason, the neglect by users of contractual documents can lead not only to unpleasant surprises in the performance or enforcement of particular contractual duties, but also to chronic underuse of contracts as potential instruments for planning, innovation, commercial relationship-building, and optimal business results.*

*Visualization techniques—i.e., adding graphic images to supplement written words—could invigorate the effectiveness of contract documents and processes. Greater understanding and use of contract materials could reduce transaction costs, prevent disputes, and help to achieve business goals. This paper explores the possibilities for using visualization techniques within and about contracts, and invites others in the legal and commercial contracts community to join collectively in that effort.*

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## I. INTRODUCTION

“Visualization” uses graphical images to convey information, organize data, promote learning, or stimulate imagination and reflection.<sup>1</sup> Sometimes images stand alone, as in art or traffic signs. In other contexts, images accompany words to enliven the language and make underlying concepts more comprehensible. This Essay posits that visualization techniques might be applied to contracting processes and documents in order to make them easier to plan, draft, read, understand, and implement. Doing so may inspire and support stronger commercial relationships and cross-professional collaboration between business people and their legal advisers.

The Essay begins with the idea of “visualization” and speculation about its possible advantages. The main body then describes the possible kinds of information that could be more easily understood by supplementing words with accompanying graphic images. Some ideas are far easier portrayed graphically than others, like equipment and other physical objects of exchange. Sequences of events, responsibilities, and relationships can also be readily simplified through diagrams. More challenging are graphical portrayals of contract law concepts, the “invisible terms” of default contract provisions, and the purposes and relational expectations of the contract. Depicting these ideas graphically requires imagination. But images have the potential to communicate in ways that are different from words, which is worthy of community-wide investigation and assessment.

The Essay concludes by anticipating a future internet-based Visualization Project that may hopefully spark experimentation with images. This effort would enlist decentralized investigation, assessment, and possible contract reform. Hence, the voice adopted throughout this Essay is not that of disinterested scientific investigation, but rather of advocacy toward a common enterprise of exploration.

## II. POTENTIAL ADVANTAGES OF ADDING GRAPHIC IMAGES TO WORDS

Visualization techniques add images to words. Such techniques could be used directly *in* a contract, as part of the drafting process. On the other hand, visualization can be *about* a contract, a separate document that assists all those who are involved in the planning, review, or approval of a contract or in monitoring or implementing its terms. Whether inside a contract or alongside it, visualization could supplement contract language through diagrams, images, maps, timelines, decision trees, charts, icons, clip art, sketches, drawings, symbols, or photographs (collectively referred to here as “graphics”).

*None of these graphics would displace the priority of written contract language; the graphics would simply illustrate the words and actions based on them. But graphics could possibly speed up negotiations; focus attention on*

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1. See, e.g., Univ. of St. Gallen, et al., *Visual Literacy: An E-Learning Tutorial on Visualization for Communication, Engineering and Business*, VISUAL-LITERACY.ORG, <http://www.visual-literacy.org> (last visited Sept. 5, 2012); *The VizThink Community*, VIZTHINK, <http://www.vizthink.com/the-vizthink-community> (last visited Sept. 5, 2012).

important clauses; help users to find and convey embedded information quickly; or act as a reference guide for implementing the agreement. Beyond these efficiencies, visualization could also make the contracting process more transparent, participatory, and trust-inspiring.<sup>2</sup>

Adding graphics to the contracting process and documents in thoughtful ways could potentially transform contracts from traditional legal instruments for rent-seeking or risk-shifting toward what they could more often become: devices to facilitate better collaboration, relation-building, innovation,<sup>3</sup> strategic planning, and social value. Visualization could improve the communications among those who work with and through those contracts: the parties; their suppliers, customers, financiers, and insurers; engineers, designers, contract and commercial managers; implementation teams; and lawyers. Such stronger communication could contribute to each individual contract becoming more functional and easier to use. Collectively, the process of visualizing contracts could contribute to the emerging emphasis on greater flexibility and stronger relationships in commercial exchange.

The mechanisms for achieving these goals need not be difficult. Graphic images could animate the words of a contract, simplifying technical, financial, and legal concepts as well as all the other particulars of an exchange.<sup>4</sup> This broader understanding of contracts could promote stronger communication and participation by the contracting parties and contract implementers, which advances mutual trust and collaboration.

Better understanding, communication, and trust could then lead to several benefits. First, when the scope and the parties' roles and responsibilities are clear, fewer technical, financial, or legal problems would be likely to arise. And if a dispute does ensue, the parties may be less likely to resort to litigation. Second, when the contract's core can be communicated quickly and easily, efficiencies could follow, leading to faster time to market of new solutions and time saved at the pre-contract stage. Third, innovation could be encouraged as better feedback prompts new ideas for product and service improvement. Finally, relationships may improve—not only between the contracting parties, but also among all of the managerial, technical, and legal professionals who contribute to the making and completion of a contract. Each group can better understand the specialized vocabulary of the other, and each group can better contribute their judgment and experience.

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2. See generally Gerlinde Berger-Walliser, Robert C. Bird & Helena Haapio, *Promoting Business Success Through Contract Visualization*, 17 J.L. BUS. & ETH. 55 (2011). Through visualization, contracting may be better used “as a strategic tool, improving business outcomes, creating value, and preventing problems.” *Id.* at 57.

3. On contracting for innovation see generally Matthew C. Jennejohn, *Collaboration, Innovation, and Contract Design*, 14 STAN. J.L. BUS. & FIN. 83 (2008); Ronald J. Gilson et al., *Contracting for Innovation: Vertical Disintegration and Interfirm Collaboration*, 109 COLUM. L. REV. 431 (2009).

4. The “business substance,” as distinct from the legal risk planning features of a contract, includes “technology, scope, deliverables, project plan, schedule, resourcing, [and] pricing.” Berger-Walliser et al., *supra* note 2, at 62; see also IAN R. MACNEIL & PAUL GUEDEL, *CONTRACTS: EXCHANGE TRANSACTIONS AND RELATIONS* (3d ed. 2001) (distinction between performance planning and risk planning).

Contract language is often dense, invoking concepts and techniques in ways that are familiar only to experts. Visualization could be especially helpful where contracts are made or implemented without professional assistance. In those cases, graphics could potentially transform what otherwise would be perceived as futile encounters with incomprehensible documents to which there can be no practical response. Moreover, it is not only individuals and businesses that could benefit from lowering these “barriers to entry.” The legal system itself could be strengthened when contracting practices promote user understanding, party interaction, and mutual accommodation rather than detached rationality, separation, and power.<sup>5</sup> Putting contract law within the conceptual and creative grasp of non-lawyers could help everyone regard law as less of a power game, manipulated by forces beyond ordinary people’s control, and more as a framework for individual and collective flourishing.

The sections below first explore how graphics could focus meaning by identifying the objects of exchange, directing a sequence of events, explaining the reciprocal relationships of the parties, and setting a tone for communication and negotiation. The paper then describes the conventional preference of words over images, a preference so deeply rooted in cultural and philosophical traditions that it is rarely questioned in academic literature. But a confluence of cultural, economic, and technological changes may now be reversing that preference. If so, the time may be right to launch a Visualization Project toward designing and testing images and standardizing their use. The essay concludes with some general advice about creating those images, together with suggestions for how they may be used.

The work of contract visualization is just beginning. It will evolve as new graphics and applications are suggested and tested, and either gain broader acceptance or are rejected in favor of better ones. The process for establishing meanings and clarifying thoughts and understandings through graphics should be as broadly inclusive as possible. It should include participation by business users, consumers, lawyers, and communication designers, since the project will thrive only if helpful images are created and then actually employed in the creation and communication of contracts.

### III. WHAT INFORMATION CAN IMAGES COMMUNICATE?

In assessing the prospects for changing perceptions and capabilities toward implementing contracts through visualization, consider the analogy of an instruction manual that accompanies a piece of “ready to assemble” furniture. The value of using pictures, diagrams, and flow-charts can scarcely be doubted when putting together a new furniture item.<sup>6</sup> Like many contractual transactions and

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5. THOMAS D. BARTON, PREVENTIVE LAW AND PROBLEM SOLVING: LAWYERING FOR THE FUTURE 8–10, 185–191, 251–178 (2009).

6. See generally *Assembly Instructions*, IKEA, [http://www.ikea.com/ms/en\\_US/customer\\_service/assembly\\_instructions.html](http://www.ikea.com/ms/en_US/customer_service/assembly_instructions.html) (last visited Sept. 6, 2012) for a collection of assembly instructions for IKEA products; for a chair, for instance, see IKEA, BALSER, available at [http://www.ikea.com/ms/en\\_US/customer\\_service/assembly/B/B30093154.pdf](http://www.ikea.com/ms/en_US/customer_service/assembly/B/B30093154.pdf). Although many furniture purchasers attempt to put together their new items without referring to the instruction manuals, mechanical hubris should not count against the value of using pictures and diagrams in an assembly manual. The folks who disregard a well-designed set of pictures to explain

relationships, the assembly of a piece of furniture can be complex. Several steps must be performed, often in a prescribed sequence, using the correct parts. Each party bears some responsibility: the furniture maker for proper items, design, and packaging, and the consumer for following directions properly to assemble the parts. The furniture must often be fastened together using a variety of small hardware pieces that many consumers could not identify by name. Therefore, an assembly manual that relies on words alone will be inefficient and frustrating. In just one example of this, how many consumers—or even people with significant mechanical experience—could correctly pick out, using words alone, more than a few of the nineteen different screw head types that Wikipedia identifies?<sup>7</sup> Notably, Wikipedia does not attempt to communicate this information without supplying drawings of each type of screw head to accompany its formal name; the information would simply not be helpful to anyone not formally trained or well-experienced in their use.

A photograph or drawing depicting the shape (and perhaps a life-size image that mimics the actual dimensions) of any of these screw heads is essential to the success of an assembly manual. Only by supplying graphical analogues of the hardware, and diagrams of how these fasteners connect with the furniture panels, are the steps of assembly accessible to the consumer without a tedious trial-and-error process.

Perhaps a professional mechanic or carpenter could cope with an instruction manual comprised solely of words. But an assembly manual using language alone is likely written by professionals, for use by professionals—as most contracts are written by lawyers essentially for use by other lawyers.<sup>8</sup> We might even begin to suspect that the author of a words-only assembly manual did not want average consumers to be able to use it, but instead wanted to force buyers into hiring trained members of an assemblers' guild. A picture dramatically reduces the information costs to the assembler of the furniture, and thus enables consumers to do it. Better assembly manuals confer a competitive advantage on companies that offer them with their products.

Visualization could also confer possible competitive advantages<sup>9</sup> for those businesses that incorporate helpful images in or about their contracts.<sup>9</sup> Well-visualized contracts could be more attractive and trust inspiring at their formation.

the steps of assembly would certainly not read a manual comprised solely of prose.

7. *Screw Head Shapes*, WIKIPEDIA, [http://en.wikipedia.org/wiki/Screw#Screw\\_head\\_shapes](http://en.wikipedia.org/wiki/Screw#Screw_head_shapes) (last visited Mar. 5, 2012) (examples listed include “Polydrive,” “Security Torx,” “Triple Square,” “Torq-set,” and “Spanner head”). We note in passing that Wikipedia also identifies the last example, “Spanner head,” under the common name of “snake eye.” The metaphor of a snake’s eyes has apparently evolved alongside the formal name of this screw head because the spacing of two holes in the screw head so strongly evokes the image of a snake’s head. The metaphor is vivid and memorable and therefore its use has spontaneously evolved to identify this particular type of screw.

8. Berger-Walliser et al., *supra* note 2, at 56. “Lawyers and the language they use are part of the problem. . . . [T]hey get paid twice: once for drafting contracts that only the lawyers understand, and again for interpreting what these contracts mean.” *Id.* at 56 (citing Steven Weatherley, *Pathclearer: A More Commercial Approach to Drafting Commercial Contracts*, L. DEP’T Q., Oct.-Dec. 2005, at 39, available at <http://www.iaccm.com/members/library/files/pathclearer%20article%20pdf.pdf>).

9. See generally GEORGE SIEDEL & HELENA HAAPIO, *PROACTIVE LAW FOR MANAGERS: A HIDDEN SOURCE OF COMPETITIVE ADVANTAGE* (2011).

They could also be more effective in the implementation of contractual undertakings—especially in complex or long-term contracts.

But assuming the economic, relational, and cultural value of visualization, what types of information in or about a contract might be conveyed well by images, and what cautions should accompany their use? The paragraphs below offer examples of some promising uses of contract graphics in identification; sequence; relationship and responsibilities; contractual concepts and risks; invisible terms; and overarching purpose and tone of the exchange.

### *A. Identifying the Objects of Exchange*

In a sale of goods transaction, words or serial numbers alone can identify the object being exchanged in a contract. Just as construction contracts or contracts to fabricate machinery typically include technical drawings to clarify the object of exchange, sales contracts could helpfully convey information about shape, size, color, decorative design, packing, marking, or possible flaws or evidence of wear in used goods where the words are supplemented with photographs or other highly “indexical” images.

Images are indexical to the extent that the graphic actually resembles that which it is meant to represent.<sup>10</sup> As will be discussed further below, the design of successful graphics often relies on indexical qualities to convey information intuitively. A photograph of an object, for example, is most highly indexical. But often objects to be represented graphically cannot be photographed. In that event, less indexical graphics must be created that evoke the object. Finally, certain ideas have no tangible existence that can be portrayed. For them, graphics must be designed that are associated in meanings through metaphor, or through learned conventions like the use of the symbol “?” to represent the posing of a question.<sup>11</sup>

Where buyers need reassurance about exactly what they are buying, and its appearance and condition, multiple photographs are most helpful. Absent the detailed information conveyed by a picture, many buyers would either turn away from the risk or demand strong assurances from the seller. In that event, buyers may be forced to overpay and sellers lose sales. Good graphics can lower risk-avoidance costs by providing more information, to the benefit of both parties.

As to the quest for competitive advantage among sellers, marketers clearly have learned the power of partnering photographs with the written word in depicting an object for sale. Under the heading “Creating Effective Listings,” for example, prospective eBay sellers are advised on how to use photography effectively in selling objects. “A great photo sets your listing apart,” reads the introductory text.<sup>12</sup> Business-to-business sellers clearly understand as well the marketing value of good proposal graphics or a well-designed graphic interface on a website, as opposed to relying solely on a text-based listing of item numbers with a

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10. STEPHEN SPENCER, *VISUAL RESEARCH METHODS IN THE SOCIAL SCIENCES: AWAKENING VISIONS 2* (2011).

11. *Id.*

12. *Help: Creating Effective Listings*, EBAY.UK, <http://pages.ebay.co.uk/help/sell/listings.html> (last visited Sept. 5, 2012).



corresponding price list. The objects of exchange can be identified through a serial number, but that object can be made more attractive, as well as clearer, through an accompanying photograph or drawing.

### *B. Sequence of Events, Responsibilities, and Relationships*

Images can do far more than help to identify or describe what is being exchanged in a contract. Services contracts or joint ventures, for example, can usefully employ flow-chart diagrams to illustrate a sequence of events or shared responsibilities. Going back to the furniture assembly manual, pictures or drawings are usually placed on a page and marked by numbers to identify the order in which steps should be performed. Where multiple parties must perform duties to other people or within a complex process, “who must do what, when” information can be portrayed in time-lines accompanied by icons designated to represent particular parties. When responsibilities are shared, interactive relationships can also be easily depicted with lines joining the parties or arrows that connote the direction of a performance.

Responsibilities related to the transportation of goods, such as who needs to load and unload the goods, carry the risk of loss, arrange and pay for carriage, export/import duties, insurance, etc., can be clarified by the use of images. For example, the International Chamber of Commerce (ICC), the publisher of Incoterms, makes use of illustrations in their guidance charts. These images make comparisons easier, for instance to illustrate the differences in transfer of risk from seller to buyer under the different Incoterms trade terms, or between these terms and various domestic or international sales laws.

### *C. Contract Concepts and Risks*

More challenging are the depictions of contractual concepts like “promise,” “consideration,” “condition,” “warranty,” “modification,” “repudiation,” “breach,” and “remedy.” First, since these concepts have no physical existence, they cannot be photographed or represented by a strongly indexical icon. Icon design must therefore rely more heavily on metaphor or learned convention. Second, often the concepts would not be fully understood by non-lawyers even if an icon could successfully summon the concept in the mind of the contract user. That is why, in any contested meaning between the words of a contract and accompanying images that are added, the words must prevail.

Early experiments in the field of using images to depict contract-related concepts like “obligation”, “prohibition”, “permission”, and “risk” have been made at University of Oslo, Norway, Faculty of Law. Using icons and legal risk diagrams, a graphical modeling language and a method for proactive legal analyses were developed.<sup>13</sup> In a case study, a group of lawyers, managers, and engineers were asked to analyze the risks related to a contract proposal using this method.

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13. TOBIAS MAHLER, LEGAL RISK MANAGEMENT: DEVELOPING AND EVALUATING ELEMENTS OF A METHOD FOR PROACTIVE LEGAL ANALYSIS, WITH A PARTICULAR FOCUS ON CONTRACTS 273–310 (2010).

The case study showed that the diagrams were perceived as very helpful in communicating risk amongst the case study participants. However, the need for simplicity and usability also led to some limitations and the need for a combination of graphical and natural language for improved decision-making.<sup>14</sup>

Visualization is also increasingly used in other areas to communicate risk. *Risk visualization* “employs charts, conceptual diagrams, visual metaphors, and mapping techniques to improve understanding and subsequent management of risks. Risk visualization uses the power of graphics to help experts, decision makers, and laymen to better deal with risks in the areas of management, health, and security.”<sup>15</sup>

One source of contract risk is posed by the parties’ unexpressed expectations that easily lead to misaligned interests and misunderstandings. For example, one party may wish to have a long-term commitment, while the other wishes to be able to walk away from the deal with short notice. The parties’ different expectations can lead to a less than amicable end of the contract. Due to their different perceptions, they may differ on the interpretation of contract terms, especially those that are vague. In a Canadian case, a termination clause was interpreted differently by the two parties. The vagaries of the text lead to an eighteen-month dispute over the meaning of a single comma in a clause.<sup>16</sup> It would have been best for the parties to discover their different views of the contract at the negotiation stage, which they did not do. This they could have done using a simple timeline drawing.<sup>17</sup>

Technical, financial, and legal terminology sometimes take on specialized meanings, often carefully tailored by professionals, that images cannot readily convey. Images are more successful if they are instantly recognizable and interpreted within the industry or by the public. Such universality of meaning cannot and should not push aside more complete and precise language. Specifying clearly that visualizations are only an *aid in interpreting* the contract—like a statement of purpose or preamble to a contract—would also reassure lawyers and encourage their use of images.

Notwithstanding the design challenge, it may be worthwhile making contract concepts more accessible to users even while not binding. Legal concepts can be so far beyond the reach of clients and consumers that they will not know how to frame questions about them, or how to interpret or price out the responses if questions are posed. This spawns the sense of futility that discourages even business users from reading contracts. Contracts are most often seen as less useful

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14. *Id.* at 237–262.

15. Martin J. Eppler & Markus Aeschimann, *Envisioning Risk: A Systematic Framework for Risk Visualization in Risk Management and Communication*, ICA Working Paper Version 1.0 (2008), available at [http://www.risk-visualization.org/ENVISIONING\\_RISK.pdf](http://www.risk-visualization.org/ENVISIONING_RISK.pdf) (last visited Mar, 5 2012).

16. Ian Austen, *The Comma That Costs 1 Million Dollars (Canadian)*, N.Y. TIMES, Oct. 25, 2006, [http://www.nytimes.com/2006/10/25/business/worldbusiness/25comma.html?\\_r=3](http://www.nytimes.com/2006/10/25/business/worldbusiness/25comma.html?_r=3).

17. For a discussion of this example and a visualization showing how this dispute could have been prevented by making the invisible expectations visible, see Larry DiMatteo, George Siedel, & Helena Haapio, *Strategic Contracting: Examining the Business-Legal Interface*, in PROACTIVE LAW IN A BUSINESS ENVIRONMENT 59-106, (Gerlinde Berger-Walliser & Kim Østergaard eds., 2012).

when not read,<sup>18</sup> and such disparities in sophistication lead to unbalanced contracts of adhesion. Relying on *ex post* contract interpretation often leads to unexpected results, including negative surprises, such as excessive risk and liability exposure, or to invalidation through doctrines like unconscionability. Such outcomes are expensive, unreliable, and introduce unpredictability into contracting that could be averted where contractual terms are better understood *ex ante*.

#### D. Invisible Terms

Metaphors may help contract users understand better the underlying ideas, or at least see where in a contract a given concept comes into play. This latter point raises another possible advantage of bringing graphics into a contract: the images could help a user “see” what Helena Haapio calls the “invisible terms” of an agreement.<sup>19</sup> Invisible terms do not appear in the contract, such as statutory default rules,<sup>20</sup> case law, and domestic and international principles of contract law. “The lawyer knows these terms, the non-lawyer does not.”<sup>21</sup> Hence supplying information about these background provisions could be helpful to the users of a contract not only when planning, pricing and constructing contracts, but also in the implementation stage.

Even if a graphic suggesting the presence of an invisible term could do no more than prompt a user’s follow-up telephone call to a lawyer, many legal problems could likely be prevented through that alerting function, to the financial and relational benefit of all concerned. Although depicting invisible terms graphically may sound challenging, it is actually not more so than the task of representing rights, responsibilities, and remedies in a particular contract. Furthermore, once completed the invisible term images could be used repeatedly. Indeed, standardizing the inserted images would further the comprehension of the terms as well as the graphics. Convening a group of contracts users, scholars, practitioners, and information designers on a Visualization Project to experiment with, assess, and possibly generate a standardized “vocabulary” of contracts graphics to accompany or alert the reader to typical default rules and legal regulation could, therefore, be socially and commercially valuable.

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18. Although not always so. Different attitudes may prevail in China, for example, about the sanctity and usefulness of a written contract. “Chinese see contracts as a picture of what they hope happens, a place to start, . . . Chinese gladly sign contracts for many reasons, two are that we insist and that a contract signing is a great reason for a big meal at company expense.” Carey Chambers, *How Chinese View Contracts*, DRAGON BUSINESS NETWORK (June 24, 2010) <http://www.dragonbn.com/articles/37> (quoting Greg Bissky, *Chinese Glasses: Chinese Ideas of Contracts*, YOUTUBE (June 6, 2007), [http://www.youtube.com/watch?v=9fSWEUhaJ94&feature=player\\_embedded](http://www.youtube.com/watch?v=9fSWEUhaJ94&feature=player_embedded))).

19. Helena Haapio, *Invisible Terms in International Contracts and What to Do About Them*, CONTRACT MGMT., July 2004, at 32, available at [http://www.ncmahq.org/files/Articles/81EEB\\_cm\\_July04\\_32.pdf](http://www.ncmahq.org/files/Articles/81EEB_cm_July04_32.pdf); e.g., Helena Haapio, *Invisible Terms & Creative Silence: What You Don’t See Can Help or Hurt You*, CONTRACT MGMT., Sept. 2009, at 24, available at <http://www.ncmahq.org/files/Articles/CM0909%20-%2024-35.pdf> (examples of invisible terms, including visuals).

20. Berger-Walliser et al., *supra* note 2, at 63.

21. *Id.*

The work of the Project can be inspired by and built on existing examples, some of which are available on the Internet. The use of visualizations has been explored, for instance, in the area of invisible terms applicable in a Battle of the Forms situation under Article 2 of the Uniform Commercial Code. The user of the demonstration can choose various details and the output shows the most likely finding as to whether a contract exists and the terms of that contract, along with a graph that explains the argument that will be advanced in support of the judicial finding.<sup>22</sup> Examples of modeling legal rules and legal language also exist in the fields of legal informatics, ICT, and law. In Central Europe, visualizing legal information has developed into a research field in its own right. In the German-speaking countries, the terms *legal visualization* (Rechtsvisualisierung), *visual legal communication* (Visuelle Rechtskommunikation), *visual law* (Visuelles Recht) and *multisensory law* (Multisensorisches Recht) have been used to describe this field of growing research and practice.<sup>23</sup>

### E. The Contract

It is remarkable how often consensus is lacking over what constitutes “the contract,” and how often there is debate over whether particular commitments or documents are “contractual.”<sup>24</sup> When hearing the word “contract,” many people tend to think of signed, formal, legal documents—often forgetting that these incorporate and refer to many other documents. Visualization could be used to illustrate, for instance, what is and what is not part of “the contract,” what is the order of precedence of the various documents; and whether what is provided in them is in addition to, or to the exclusion of, what is provided in the applicable default rules. If visualizations are used when constructing and compiling the deal documents, then the architecture, structure, and contents could become clear early on, and unnecessary gaps and conflicts can be avoided. Visualizations may also help guide the process of making and managing changes to the contract documents.

### F. Purpose and Relational Expectations

One final aspect of what images communicate explains the historical resistance to more widespread use of images in legal life. However well images may sometimes be used to clarify meanings or intentions, images are often more open to variation in interpretation than the written word. When used consciously as

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22. Seth J. Chandler, *Visualizing Legal Rules: Battle of the Forms*, WOLFRAM DEMONSTRATIONS PROJECT, <http://demonstrations.wolfram.com/VisualizingLegalRulesBattleOfTheForms> (last visited Mar. 5, 2012).

23. COLETTE R. BRUNDSCHWIG, VISUALISIERUNG VON RECHTSNORMEN – LEGAL DESIGN [VISUALIZATION OF LEGAL NORMS] (Doctoral Thesis. Zürcher Studien zur Rechtsgeschichte, vol. 45. Rechtswissenschaftliche Fakultät d. Universität Zürich. Schulthess Juristische Medien: Zürich 2001); Colette R. Brunschwig, *Multisensory Law and Legal Informatics – A Comparison of How These Legal Disciplines Relate to Visual Law*, JUSLETTER IT (Feb. 22, 2011), available at <http://jusletter-eu.weblaw.ch/issues/2011/104.html>.

24. INT’L ASS’N FOR CONTRACT & COMMERCIAL MGMT., THE STATE OF SALES CONTRACT MANAGEMENT 9, (2011), available at [http://www.iaccm.com/members/library/files/The\\_State\\_of\\_Sales\\_Contracting\\_Final.pdf](http://www.iaccm.com/members/library/files/The_State_of_Sales_Contracting_Final.pdf).

“art,” for example, self-reflection and individual interpretation by the viewer is much of the point of the image, and can provoke emotional impact. Neither the meanings to viewers, nor the conclusions to be drawn from those meanings, are expected to be uniform. Artistic images are successful—“better art”—the more powerfully they open inquiry rather than close it. Contracts, by contrast, are typically viewed as more successful and efficient where they focus meanings and guide the parties seamlessly through a transaction.<sup>25</sup>

The subjectivity of imagery is both intellectual and emotional. In the words of Richard K. Sherwin, “Visual meaning making is different from the way we make meanings in words alone. Visual meanings are written in the body, so to speak. We respond to images quickly, holistically, and affectively – the same way we perceive the world at large.”<sup>26</sup> And as social science methodologist Stephen Spencer writes, “[t]he visual is recognised as central to the human condition and to expressions of humanity which pre-date language, affecting our emotions, identities, memories and aspirations in a most profound way.”<sup>27</sup> Although historically undervalued, “the potential of visual methods to provide a deeper and more subtle exploration of social contexts and relationships is recognised.”<sup>28</sup> Spencer deftly summarizes the differences between word and image, but he ultimately explains why their combination should be the goal:

We believe in language; it is a bond which unites cultures, delineates relations of belonging, identity and difference. Language is one of the facets of culture we are most motivated to learn, enabling relative precision in the description of complex concepts, emotions, and other internal states. Pictures, on the other hand, are less reliable as vehicles for conveying simple messages; a painting can of course incorporate conventional codes and symbols. But a clear “reading” of the combination of elements and how they are intended by the artist [or the contract drafter—ed.] may be difficult to access and open to multiple interpretations.<sup>29</sup>

Yet this open quality of images offers something important: “The unique character of the visual communicates at a different level to the verbal. . . . [I]magery creates feelings and texture; the imagery speaks directly to the individual’s inner self-evoking memories, reflections, and feelings. . . . [I]mages may provide a conduit for emotions.”<sup>30</sup>

This very subjectivity and appeal to emotion is what raised suspicions about imagery during the Enlightenment era, the heritage of which is reflected in

25. As in art and diplomatic negotiations, however, some contracts or parts of contracts are most successful when knowingly left open to future negotiations or changed understandings.

26. RICHARD K. SHERWIN, *VISUALIZING LAW IN THE AGE OF THE DIGITAL BAROQUE: ARABESQUES AND ENTANGLEMENTS 2* (2011).

27. Spencer, *supra* note 10, at 1.

28. *Id.*

29. *Id.* at 2.

30. *Id.* at 16.

the virtual monopoly of the written word to communicate legal thought.<sup>31</sup> The “historical antipathy toward images as opposed to words” is vividly described by Neil Feigenson and Richard K. Sherwin.<sup>32</sup> They describe how the rationalist (“*cogito ergo sum*”) Rene Descartes “stopped up his senses precisely in order to avoid being distracted in his search for certainty and true knowledge. For Descartes, ideas are clear and distinct and thus certain precisely to the extent they have been cut off from the body.”<sup>33</sup> Religious iconoclasm takes this skepticism and distrust of imagery to violent levels,<sup>34</sup> but a grain of truth remains: the visual and linguistic do seem to dwell in separate spheres.<sup>35</sup> For contract drafters, the trick will be to make these differences into something of value, as good negotiators are trained to do.<sup>36</sup> How can images enhance clarity to facilitate contract formation and ease implementation, as suggested by the analogy to the furniture assembly manual, and yet avoid inviting subjectivity that brings uncertainty and egocentric contract interpretation?

Perhaps the best strategy is not to fight completely the imaginative and emotional qualities that attach to images. Instead, in choosing the icons for use (especially standardized use) in and about contracts, drafters should acknowledge that implicit messages,<sup>37</sup> mood, or spirit will inherently be conveyed by the image, and then choose accordingly.

The separate sphere of meaning raised by images should, in other words, be consciously directed to reinforce what the parties to the contract intend to achieve. Do they intend a collaborative relationship? Do they intend that the contractual arrangements remain flexible, with both parties willing to accommodate the terms of the contract to uncontrollable changes in the business environment surrounding performance? Do the parties intend to embed duties of ongoing consultation and good-faith communication? Images can project those intentions,

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31. Michele G. Falkow, *Visual Literacy and the Design of Legal Web Sites*, 97 LAW LIBR. J. 435, 435 (2005) (“[L]egal information is overwhelmingly word—rather than image—driven.”). *But cf.* Bernard J. Hibbitts, Assoc. Dean for Comm’n and Info. Tech. at the Univ. of Pitts. Coll. of Law, *The Re-Vision of Law: The Pictorial Turn in American Legal Culture*, paper delivered at the Annual Meeting of the College Art Association, Boston, MA (Feb. 1996) available at <http://faculty.law.pitt.edu/hibbitts/pictor.htm> (last visited Sept. 18, 2012) (the relative modernity of “word-primacy” is worth noting: “[L]aw is not as exclusively-textual as many of us have traditionally presumed. Law has a rich imagistic history, the manifestations of which range from ancient dramatizations of contract and conveyance, through the gesture manuals of the classical juristic orators, all the way to illuminated medieval legal manuscripts and the “Last Judgment” paintings which hung in Renaissance courtrooms. This truth is conveniently represented in the figure of Justice . . . . Justice is blindfolded, but she is not blind. Physically, she can see the pictorial and the imagistic, and indeed, prior to the seventeenth century, she did see those things. It was only the anti-imagistic biases of post-Reformation iconography that created the blindfold and stopped her sight. Restoring Justice’s vision does not require radical surgery; rather, it merely requires removing the blindfold.” Historically, then, we are perhaps poised to enter the second era of visualization following the interlude of Enlightenment values).

32. Neil Feigenson & Richard K. Sherwin, *Thinking Beyond the Shown: Implicit Inferences in Evidence and Argument*, 6 LAW, PROBABILITY & RISK 295, 303 (2007).

33. *Id.*

34. *Id.*

35. *Id.* at 304.

36. See generally ROBERT H. MNOOKIN ET AL., *BEYOND WINNING: NEGOTIATING TO CREATE VALUE IN DEALS AND DISPUTES* (2000).

37. Feigenson & Sherwin, *supra* note 32, at 295-96.

subtly or vividly. Designers should choose images that convey that flexibility and eschew the exploitation of temporary advantage. Images can project a sense of overarching purpose, beyond the particulars of exchange.

The sense of tone that emerges from imagery can have far-reaching effects. What would be the effect of drafters employing symbols that convey the sense of an arms-length, competitive, and secretive relationship? What if contract visuals were to employ the battlefield metaphors that lawyers so often use in conversation? If expressed openly, one wonders whether the metaphor would seem so appealing (or accurate to the real intentions of the client). One wonders whether competitive pressures would prompt the use of more welcoming, mutually respectful imagery. Additionally, over time one wonders whether the reality of the communication and relationship would evolve to match the images used to portray contractual aspirations. Visualization of contracts, in sum, offers an opportunity not only to make contracts more useful and to improve the working relationships between lawyers and their in-house and external clients, and beyond<sup>38</sup>; it may also change the culture, negotiation, and relationships of exchange.

As image-resistant Enlightenment attitudes lose their cultural and philosophical grip,<sup>39</sup> adoption of visualizing techniques in contracts seems more realistic than even twenty years ago. Technological change may have dramatically hastened a longer, deeper cultural shift from the primacy of words to a blending of words with images. The traditional format of a contract in a self-contained, linearly organized document comprised of words alone may no longer comport with the way people capture and apply information. Like some other aspects of the traditional legal system,<sup>40</sup> contracts may be becoming stylistically old-fashioned—even counter-cultural—while substantively they take on more and more importance in business and human relations.

People have become far more accustomed to using images and symbols when searching for and using information than they did in an older world dominated by books and newspapers. When in the early 1990s the DOS operating systems of computers moved from their original text-only format to images, electronic information everywhere began to be accompanied by images. People have accordingly learned to navigate through information by learning and using icons, and then to apply that knowledge individually.

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38. Helena Haapio, *Making Contracts Work for Clients: Towards Greater Clarity and Usability*, in TRANSFORMATION JURISTISCHER SPRACHEN. TAGUNGSBAND DES 15. INTERNATIONALEN RECHTSINFORMATIK SYMPOSIONS IRIS 2012 / TRANSFORMATION OF LEGAL LANGUAGES. PROCEEDINGS OF THE 15TH INTERNATIONAL LEGAL INFORMATICS SYMPOSIUM IRIS 2012 389–396 (Erich Schweighofer et al. eds., 2012), reprinted in JUSLETTER IT, Feb. 24, 2012 (en), Feb. 2012 (de), available at [http://jusletter-eu.weblaw.ch/en/issues/2012/IRIS/jusletterarticle\\_1071.html](http://jusletter-eu.weblaw.ch/en/issues/2012/IRIS/jusletterarticle_1071.html) (last visited Sept. 7, 2012); Stefania Passera & Helena Haapio, *User-Centered Contract Design: New Directions in the Quest for Simpler Contracting*, in PROCEEDINGS OF THE 2011 IACCM ACADEMIC SYMPOSIUM FOR CONTRACT AND COMMERCIAL MANAGEMENT 80 (Rene Franz Henschel ed., 2011), available at [http://www.iaccm.com/admin/docs/docs/HH\\_Paper.pdf](http://www.iaccm.com/admin/docs/docs/HH_Paper.pdf).

39. See, e.g. Barton, *supra* note 5, at 143–163; Feigenson & Sherwin, *supra* note 32, at 227–232. See generally, Sherwin, *supra* note 26; Christina Spiesel, *Law in the Digital Age: How Visual Communication Technologies are Transforming the Practice, Theory, and Teaching of Law*, 12 B.U.J. SCI. & TECH. L. 227, 227–232 (2006); Thomas D. Barton, *Troublesome Connections: The Law and Post-Enlightenment Culture*, 47 EMORY L.J. 163 (1998).

40. See generally Barton, *supra* note 39.

Instead of reading one or two long documents organized as a single author may see fit, people now search out information through word searches that they create, visiting many separate sources of information and extracting the most relevant parts for their particular inquiry. Without the Internet, sampling numerous sources in this way would have required hours or days inside a physical library. The dramatic lowering of information costs has changed how people expect to learn. We could expect that contracts in the future would be electronic, with supplemental information embedded by hyperlinks. This could be a way in which icons could better inform contracts users about their rights and responsibilities, about the standard terms and conditions used repeatedly in a series of contracts, about the most current scope of work or delivery dates, or about the “invisible terms” discussed above. A user wanting to learn more background about default terms or regulation affecting a contract could click directly on an icon that would be hyperlinked to an online library containing descriptions that themselves would be made easier to understand through images.<sup>41</sup>

Although only indirectly a matter of visualization, we can thus also expect that contract formation will trend toward more personalization. The same lowering of information costs that permits individualized sampling of multiple data sources also permits creation of personalized contracts in which contract “drafters” can be presented with multiple choices for particular offerings or clauses that can be “clicked” to be included. Just as a person can personalize the building of a computer that is purchased online, choosing to include a larger or smaller amount of working or storage memory, or including one optical reader over another or longer or shorter warranty period, business-to-business (B2B) contracts could also include more readily selected choices of contract options and clauses, accompanied by related higher or lower prices. Visualization is not required for greater individualization of contract building, but the demand for each has common cultural, technological and economic roots. Creating contracts through an iPad app may be some way off, but its development would not be surprising.

#### IV. DESIGNING GRAPHICS FOR THE LEGAL ASPECTS OF CONTRACTS

Incorporating visual images into contracts or communication about contracts is desirable and realistic. But to gain acceptance—especially among lawyers—the images selected for use must be helpful to advancing user

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41. For Creative Commons copyright licenses, icons, and tools see *Downloads*, CREATIVE COMMONS, <https://creativecommons.org/about/downloads> (last visited Sept. 18, 2012); *About the Licenses*, CREATIVE COMMONS, <https://creativecommons.org/licenses/> (last visited Sept. 18, 2012). In the latter, the licenses are depicted having three layers: the Legal Code layer, the Commons Deed layer (also known as the “human readable” version of the license), and the machine readable version of the license. For recent initiatives related to a visual language for website privacy policies and policy icons, see Aza Raskin, *Privacy Icons: Alpha Release*, <http://www.azarask.in/blog/post/privacy-icons/> (last visited Sept. 18, 2010). For further suggestive possibilities created by Susanne Hoogwater, see, for example, LEGAL VISUALS, <http://www.legalvisuals.nl/index-en.html> (last visited Sept. 18, 2012); GOOD MOOD LAW, <http://goodmoodlaw.com/blog/>; LEGAL SKETCHPAD, <http://legalsketchpad.com/> (last visited Sept. 18, 2012).



understanding of the agreement, the goals of the exchange, and hopefully the ongoing relationship of the parties. What principles might guide the design and selection of contract graphics able to achieve this?

As stated in the introduction, this short paper cannot hope to do more than spark the imaginations of what we hope will be a broad community of contributors to a proposed Visualization Project. But in the paragraphs below, we offer some beginning thoughts about guiding principles and instincts for success in the work of that Project. As described above, some inserted images can be photographs or otherwise highly indexical. Product identification, description, packing, and marking can easily benefit from such images; but they are not available for contract concepts or invisible terms. For those ideas, icons or other more abstracted symbols are needed. Designing these cannot be done solely by visualization or communication professionals, however. Working alone, few of them are likely to understand the legal aspects of contracts well enough to depict them. But neither are lawyers likely to create good images without the help of professional designers. A partnership between the two and the intended audience—commercial contract users—is needed, but it will help each to begin by understanding the other’s world.

As a start, here are some helpful design criteria that could provide guidance for contract visualization:

- “The graphic’s message must be understood in a very short time or the reader will skip it.”
- “The graphic’s message must be clear without having to read the title or action caption.”
- “The graphic’s general message must be clear to the non-technical reader.”<sup>42</sup>

Icon designer Denis Kortunov’s listing of common mistakes in creating symbols is also instructive:<sup>43</sup>

- Insufficient differentiation between icons: “Sometimes within one set of icons, we have icons that look alike and it is very hard to understand what is what. If you miss the legends, you can very easily get the icons mixed up”
- Too many elements in one icon: “The simpler and more laconic the icon, the better. It is preferable to keep the number of objects in a single icon to a minimum.”
- Unnecessary elements: “An icon should be easy to read. . . . It is better if the whole image is relevant and not only part of it. Therefore, you have to pay attention to the context of using icons.”
- Lack of unity of style within a set of icons: “The uniting property can be any of the following: color scheme, perspective, size, drawing technique or a combination of several such properties.”
- Overly original metaphors: “Selecting what is to be displayed in an icon is always a compromise between recognizability and originality.”

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42. Dave Herndon, *Developing Effective Proposal Graphics*, CAPTUREPLANNING.COM, <http://www.captureplanning.com/articles/11833.cfm> (last visited Mar. 5, 2012).

43. Denis Kortunov, *Blog: Secrets from the Chef, 10 Mistakes in Icon Design*, TURBOMILK.COM (Feb. 12, 2008), [http://turbomilk.com/blog/cookbook/icon\\_design/10\\_mistakes\\_in\\_icon\\_design/](http://turbomilk.com/blog/cookbook/icon_design/10_mistakes_in_icon_design/).

- National or social characteristics not being taken into account: “It is always necessary to take into account the conditions in which your icon is going to be used. . . . Cultural traditions, surroundings and gestures can differ radically from country to country.”

Although challenging, icons can be most useful in making distinctions in the substance of what is being conveyed. In other words, they can actually aid analysis. “Text messages are not different from each other by shape or color. To distinguish one message from another you need to read it. In the event with icons, you need just a quick glance. Besides . . . [p]eople are good at remembering pictures. An icon can successfully serve as a visual anchor for any function in a user’s head.”<sup>44</sup>

## V. CONCLUSION

Visualization in and about contracts is a fledgling enterprise to join new technologies with evolving mentalities about contracting, lawyering, and learning. It looks at the traditions of contract drafting—the separation of parties at arm’s length and reduction of their relationship to the four corners of the agreement, the inaccessibility of concepts and language, and the search for certainty through rigidity—and asks whether both the products and the process can be improved. It looks at contract implementation—the hand-off to and needs of people who have no hand in its creation, who have no sense of the trade-offs or trust on which some provisions depend, and who read little of the document—and asks whether contracts could become better vehicles for communication and innovation.

Visualization anticipates a future that demands intense flexibility and personal trust as relationships accelerate and globalize, even as familiarity with the words of a contract or the language in which it is written may narrow. In coming months the authors of this Essay will launch an internet-based collective experiment aimed at generating, assessing, and possibly standardizing a set of images that can advance the transparency, accessibility, usefulness and business objectives of contracting processes and documents.

Visualization does not wait for the day when specialized words, and the lawyers who presume to control them, will no longer be up to the task. It recognizes the importance of communication and the paradox by which words become obstacles as well as claims and entitlements. And it tries something different, and more.

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44. Yegor Gilyov, *Blog: Secrets from the Chef, What Icons Are For*, TURBOMILK.COM (Nov. 6, 2008), [http://turbomilk.com/blog/cookbook/icon\\_design/what\\_icons\\_for/#more-389](http://turbomilk.com/blog/cookbook/icon_design/what_icons_for/#more-389).

Men and bits of paper, whirled by the cold wind  
That blows before and after time,  
Wind in and out of unwholesome lungs  
Time before and time after.

. . .

Words strain,  
Crack and sometimes break, under the burden,  
Under the tension, slip, slide, perish,  
Decay with imprecision, will not stay in place,  
Will not stay still.<sup>45</sup>

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45. T.S. Eliot, *Burnt Norton* in *COLLECTED POEMS 1909-1935* (1936).

