MEMORANDUM

To: Language Creation Society ("LCS")

From: Dentons US LLP

Date: October 21, 2014

Subject: IP Protection for Constructed Languages

I. COPYRIGHT

A. Introduction

If constructed languages ("conlangs") represent an idea, they would fall outside of the scope of protectable subject matter under copyright law. (17 U.S.C. § 102(b)) Additionally, there is a notion of property inherent in copyright as evinced in the U.S. Constitution (Art. I, § 8, clause 8[1]) that may be inconsistent with the goals of a traditionally evolved language: that it be common, shared, usable and not subject to restriction. Notwithstanding the foregoing, works of expression, such as a dictionary of the language, may contain the necessary elements of creativity required for copyright. Another potential barrier to conlang copyright protection is that the language may be a useful article, meaning it has a utilitarian function, which is a bar to copyright unless the creative aspects can be separated from the functional aspects. Finally, because the object of language — communication — implies that it should be shared, the concept of "fair use" would also apply under certain circumstances.

B. Conlang: Idea or Expression

"In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work."[2] A conlang could be a non-protectable "idea" of how people can express themselves or communicate, whereas a writing about the language could be a protectable expression of the idea of a specific way to communicate.[3] In *Baker v. Selden*, copyright protection was granted for the parts of a book that contained original expression about a system of accounting but did not extend to grant an exclusive right to use the double-entry accounting system that was being illustrated.[4] The book contained an explanatory essay about a system of book-keeping and illustrations demonstrating how to use the book-keeping system consisting of forms with columns and headings.[5] The plaintiff argued that a book written by the defendant about the same type of accounting system but using a "different arrangement" of columns and headings infringed upon the

[1] "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;…."
[2] 17 U.S.C.A. § 102 (West).
[3] *See* Baker v. Selden, 101 U.S. 99, 25 L. Ed. 841 (1879).
[4] *Id.* at 100-02.
[5] *Id.*

plaintiffs copyright.[6] The court held that the copyright in the book can only extend only to the "description of the art" in the book and does not grant an exclusive right in the method of accounting itself.[7] The parts of the work that "must necessarily be used as incident to" the idea are not copyrightable.[8] Explaining and demonstrating the accounting system does not grant a copyright in the exclusive use of the accounting method because it is a mathematical science open to public use, and the public cannot make use of the idea without "employing the methods and diagrams used to illustrate" the method since the form of the accounting system depicted in the book is essential to "practical application" of the method taught in the book.[9] The "ruled lines and blank columns" that make up the structure of the accounting system, and the unprotectable nature of the accounting system, are analogous to a language. The structure and logic of the language, such as the grammar, may be similar to the lines and columns of an accounting system since they form the basis of the concept, and, without being able to utilize these foundational elements, the concept of the language or accounting system cannot be practically utilized.[10] Languages, potentially including conlangs, are also analogous to scientific ideas or concepts, meant to be utilized by the public, like the accounting system at issue, and copyright cannot grant the exclusive right to a process or concept underlying the expression of an art.

Computer Assoc. Intern v. Altai, a case relating to the protectability of computer software, decided more than 20 years ago, further explained this concept, holding that useful processes themselves and those elements of a computer program "that are necessarily incidental to its function are similarly unprotectable."[11] A conlang reduced to writing, such as an instruction manual on what the language is, could be characterized as a necessary incident to the conlang having a purpose. If this is the case, then likely only the elements of such a book that are not necessarily incidental to the use of the conlang would be protectable. In *Reiss v. National Quotation Bureau*, the court found that a book of cable code that consisted of 6,325 meaningless coined words of five letters each, all capable of pronunciation, was a writing by an author that could be protected.[12] The code was created by a cable company so that customers could use the coined words and assign them private meanings to communicate on the cable system.[13] The plaintiff, creator of the coined words, was not seeking exclusive use of the words, but wanted to copyright the book that contained the created words.[14] The defendants argued that because the words had no independent meaning, they should not be classified as a writing by an author, and therefore the book could not be copyright protected.[15] The court held that writings do not require a preexisting meaning to be a protectable art form since meaning is not a requirement of other works of art, such as patterns, paintings or ornamental designs.[16] As examples of the issue at hand, the court said the meaningless code language was a more complicated issue than (i) if someone created "a set of words or symbols to form a new abstract speech, with inflections, but as yet with no meaning, a kind of blank

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[6] *Id.*
[7] *Id.* at 103-05.
[8] *Id.*
[9] *Id.*
[10] *Id.*
[11] Computer Associates Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 704 (2d Cir. 1992); See Lotus Dev. Corp. v. Paperback Software Int'l, 740 F. Supp. 37, 46 (D. Mass. 1990).
[12] Reiss v. Nat'l Quotation Bureau, 276 F. 717 (S.D.N.Y. 1921).
[13] *Id.*at 718-19.
[14] *Id.*
[15] *Id.*
[16] *Id.*

Esperanto" or (ii) a mathematician creating a "new set of compressed or more abstract symbols, and left them for some conventional meaning to be filled in."[17] The court determined that the meaningless coined words were a writing and that the book they were contained in can be copyrighted. However, like the accounting system in *Baker*, the concept of communicating by means of cable, employing the code and exclusive use of the code are not covered by a copyright in the book, which is the expression of the idea or process of communicating via cables.[18] The limited holding in *Reiss* provides a basis for copyright protection of a writing containing the words that makeup the conlang, but *Reiss* also establishes that the purpose of a language is to serve as a system of communication to be used by others, which may put copyrighting a conlang itself at odds with the language's natural purpose of communication.

C. Computer Elements Applied to Conlangs

Copyright protection for software programming language may serve as a useful analogy by which to analyze conlangs. The nonliteral elements of software programming language, such as the "overall organization of a program, the structure of a program's command system, and the presentation of information," may be granted some copyright protection if the nonliteral elements can be separated into copyright protectable artistic aspects that are independent from the unprotectable functional aspects.[19] The grammar of the conlang and how this information is presented could be nonliteral elements of a work that are similar to the nonliteral elements of software contained in the software's programming language, which arguably are protectable under copyright law. In *Altai*, the "general flow charts" and organization of the software were not copyright protectable subject matter under the "abstraction, filtration, comparison" test which examines the structural parts of a work (in *Altai*, software) to determine what parts of the work are expression "necessarily incidental to those ideas, and elements that are taken from the public domain" compared to protectable expression.[20] In *Altai*, the parameter lists and macros were not protectable as copyrightable subject matter because they were "functional elements and elements taken from the public domain" or were "dictated by the nature" of interacting with other programs.[21] Additionally, the organization charts were "so simple and obvious to anyone exposed to the operation of the programs" that they were regarded as standard elements, not protected because it is "virtually impossible" to write the software without using these standard devices.[22] Arguing that a conlang is substantially different from the software in *Altai* is a plausible argument for copyright protection. A conlang that is entirely original in structure and different from preexisting languages may be able to overcome the test laid out in *Altai* if the construction of the conlang could not be characterized as "simple and obvious" when compared to other languages.[23] In the "abstraction, filtration, comparison" test, the court would look at the steps taken to construct the language, filter out the elements of the language necessary to implement the language and the elements of language that are in the public domain, and then compare the possibly protectable expression of the idea inherent to the language to preexisting expressions of language.[24]

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[17] *Id.*
[18] *Id. Baker*, 101 U.S. at 103-05.
[19] *Lotus*, 740 F. Supp. at 46.
[20] *Altai*, 982 F.2d at 706.
[21] *Id.* at 714-15.
[22] *Id.* Plot elements common to dramatic productions — chases on horseback, in Westerns, for example — are "scenes à faire," and not copyrightable. Language of this sort is treated in the same way.
[23] *Id.*
[24] *Id.* at 707-12.

In *Altai*, the court noted that although Congress deemed computer programs to be literary works entitled to copyright protection, patent protection, as opposed to copyright protection, may be better suited to the "highly functional, utilitarian" nature of computing.[25] This may also be true of languages with the general purpose of enabling communication amongst people. However, in *Lotus*, the court rejected the defendant's argument that language is not inherently copyrightable because the court does not believe that "language" and "sets of statements or instructions," which is the Copyright Act definition of a computer program,[26] cannot overlap.[27] This seems to mean that language could be copyrightable so long as the artistic aspects of the language are separate from the function the language serves.

This dicta in *Lotus* provides some guidance that copyright for a language is not inherently invalid if the design and artistic elements of the language can be separated from the language's functional purpose as a means of communication. This argument is also the argument expounded by those that believe the Elvish languages contained in J.R.R. Tolkien's writings are protected in their own right, separately from the overall writings they are contained in.[28] Some believe that the Elvish languages can be separately copyrighted because the languages are artistic expression, not based on facts, solely created for the use in the novels and without an inherent function since the languages are not complete and cannot be fully conversed in.[29] However, this is rebuttable by the argument that Tolkien's languages are not actually unique or original creations because they are adapted from a combination of many preexisting languages, such as Gaelic or Welsh, so the Tolkien languages are simply derivatives of languages that are all in the public domain, and therefore are not copyrightable other than to the extent that the copyright covers the works of art created by Tolkien for which there is a legitimate copyright.[30] This argument has also been used against copyright protection for conlangs more generally, since many conlangs are derived from or bear resemblance to preexisting languages that are in the public domain.[31]

The Klingon conlang was granted a copyright, although this copyright has apparently never been challenged, so the validity of the copyright is untested. However, the copyright holder of Klingon (Paramount) allowed the Klingon Language Institute (KLI), a Klingon and Star Trek fan group, to become an authorized user of the copyright, and KLI assigns the copyright in any derivative works they create to Paramount.[32] Due to the "largely symbiotic" relationship, these fans have no apparent need to challenge the copyright.[33]

D. Protection for Derivative Works

Even if the conlang itself is not copyrightable, a dictionary of the language or a book on the grammar of the language would provide some copyright protection because that expression could qualify

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[25] *Id.* at 712.
[26] 17 U.S.C.A. § 101 (West).
[27] *Lotus*, 740 F. Supp. at 72.
[28] Carl F. Hostetter, Resources for Tolkienian Linguistics, THE ELVISH LINGUISTIC FELLOWSHIP (Jan. 29, 2006), http://www.elvish.org/resources.html.
[29] Hostetter.
[30] Robert P. Wade, Legal Opinion on Languages and Alphabets. *See* Adelman, 27 Harv. J. Law & Tec at 551-552.
[31] Wade.
[32] Adelman 27 Harv. J. Law & Tec at 553-54.
[33] *Id.*

as an original work of authorship since a dictionary would contain the "minimal degree of creativity" required through choosing how to arrange the dictionary and the language used to define words.[34]

In general, derivative works based on a work not protected by copyright are not infringing and can receive copyright protection in the derivative author's original expression of the idea of the original copyrighted work.[35] Therefore, if the conlang is an idea or process that is not copyright protected, but is described in an original copyrightable work, such as a dictionary or book on the language, then an author can likely produce a derivative work, such as a poem or story using the conlang, and the original expression in the derivative work can be properly protected by the derivative author.[36] However, if the conlang itself is copyrightable, using the conlang to create any other works without permission or a license from the copyright holder could violate the copyright in the underlying work, because the copyright holder is the only one that can make derivative works.[37] Again, the determination of what would constitute infringement of the copyright hinges on whether the conlang is copyrightable subject matter.

E. Fair Use Defense

Even if the conlang is copyrightable, other creators who make works using the conlang may find protection under the fair use doctrine, determined by applying a four factor test.[38] Works that have an educational purpose, are transformative or creative, use only as much of the copyrighted material as is necessary to be useful or reference the original, and do not infringe on the market or impair the value of the copyrighted work are more likely to be a fair use (i.e. a grammar instructional book), compared to a work such as a television show that satirizes another television show by wholesale copying characters and most of the content of the original, thus harming the value of the original.[39] Suffice it to say that the fair use doctrine is complex and there is a considerable body of case law on the subject.

II. PATENT

A. Introduction

U.S. patent law may or may not offer protection to a conlang. Inventions directed to one of the four statutory categories are patentable - processes, machines, articles of manufacture or compositions of matter.[40] Additionally, an invention must be useful, novel, and nonobvious.[41] Case law precedent suggests that patent claims directed towards means of communicating using a certain language may not

[34] Feist Publications, Inc. v. Rural Tel. Serv. Co., Inc., 499 U.S. 340, 111 S. Ct. 1282, 113 L. Ed. 2d 358 (1991). See Nikanov v. Simon & Schuster, Inc., 246 F.2d 501 (2d Cir. 1957)(holding 2 sided chart of Russian alphabet pronunciation and use of cognate words was copyrightable expression to teach grammar or syntax).
[35] 17 U.S.C.A. § 103 (West).
[36] See Durham Indus., Inc. v. Tomy Corp., 630 F.2d 905, 912 (2d Cir. 1980).
[37] Anderson v. Stallone, 87-0592 WDKGX, 1989 WL 206431 (C.D. Cal. Apr. 25, 1989).
[38] 17 U.S.C.A. § 107 (West).
[39] Acuff-Rose Music, Inc. v. Campbell, 972 F.2d 1429 (6th Cir. 1992); Benny v. Loew's Inc., 239 F.2d 532, 533 (9th Cir. 1956).
[40] 35 U.S.C. § 101.
[41] 35 U.S.C. §§ 101-103.

be patentable.[42] To the extent that conlangs do not fall within the above four categories of patent-eligible matter, a conlang would not be deemed to be patentable subject matter.

B. Patentable eligible subject matter

The subject matter of an invention must fall within one of the statutory categories of "process, machine, manufacture, or composition of matter" in order to be patent eligible.[43] Additionally, an invention cannot be directed towards a "law of nature, natural phenomena or abstract idea," similar to the exclusions of copyright law.[44] In the last five years, the Supreme Court has addressed the issue of patent eligible subject matter several times. Each of these decisions have limited or narrowed the scope of patent eligible subject matter.[45]

Here, as the conlang likely would not fall under the categories of machine, manufacture, or composition, the analysis is restricted to whether the conlang can be a process. A "process" according to patent law has generally been understood to be an act, or a series of acts or steps.[46] Language, as a sets of rules and a system of objects or symbols governing a means of communicating, may not fall within this definition of a process. Regardless of whether or not a language is a process, the process of developing a language may be separately patentable.

An act of communicating using a certain method has previously been deemed patent ineligible. In 1853, the Supreme Court addressed the issue of whether a patent claim directed generally towards a method of communicating using Morse code was patentable.[47] In the *Morse* case, the claims of the patent covered both the general idea of transmitting Morse code, as well as a physical means and method of transmitting the Morse code across cables in order to allow communication across great distances. In assessing the patentability of both types of claims, the Supreme Court concluded that the claims directed towards methods of communicating using cables, electric current, and so forth were patentable.[48] However, the claim directed towards generally communicating with Morse code — a system of dots and dashes, representing letters of the alphabet — was deemed unpatentable.[49]

Language may fall into one or more of the excluded categories, in a similar fashion as math or algorithms, which are "mental processes and abstract intellectual concepts" that "are the basic tools of science."[50] For example, claims involving an algorithm for converting binary-coded decimal numerals into

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[42] *O'Reilly v. Morse*, 56 U.S. (15 How.) 62 (1853).
[43] 35 U.S.C. § 101.
[44] *Bilski v. Kappos*, 130 S. Ct. 3218, 3225 (2010) *citing Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980).
[45] *Alice Corp v. CLS Bank*, 13-298 (2014); *Association for Molecular Pathology v. Myriad Genetics, Inc*., 133 S. Ct. 2107 (2013); *Mayo Collaborative Service v. Prometheus Laboratories, Inc*., 132 S. Ct. 1289 (2012); *Bilski v. Kappos* 561 U.S. 593 (2010).
[46] *See Gottschalk v. Benson*, 409 U.S. 63, 70 (1972) ("A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts…").
[47] *Morse*, 56 U.S. 62.
[48] *Id.*
[49] *Id.*
[50] *Benson, 409 U.S. at 67.*

pure binary form was ineligible for patent protection because it effectively granted a patent on the algorithm itself, which is an abstract idea.[51]

C. Novelty and Non-Obviousness

If a conlang is deemed to be patent eligible subject matter, the conlang must still meet the other patentability requirements such as novelty and nonobviousness.[52] Novelty means that an invention has not been previously disclosed either explicitly or inherently by another.[53] This includes that the claimed invention is not "described in a printed publication, or in public use, on sale, or otherwise available to the public" before the date on which the patent application is filed.[54] Additionally, the claimed invention must be nonobvious when compared to prior art. This is determined by looking at the "scope and content of the prior art" then comparing the "differences between the prior art and the claims at issue…."[55] The ultimate determination is whether the claimed invention is an obvious variation of the prior art.[56] Novelty and obviousness are fact specific inquiries that will vary depending on the claims at issue and the relevant prior art.[57]

III. TRADEMARK

A. Introduction

Trademark protection for the name of the conlang itself is precluded by *Loglan,* which determined names of languages are never eligible for trademark protection because languages are not goods or services. Additionally, terms cannot be registered as trademarks for "dictionaries and grammars" because such terms do not indicate the origin of the "dictionary describing the language." Therefore, trademark protection is only available for those goods and services associated with the conlang. Additionally, trademarks are only upheld if they are not generic or merely descriptive terms without a secondary meaning.

B. Strong Marks

"Strong" trademarks are those that are "purely fanciful," a coined or arbitrary term as applied to the product, and are afforded the most trademark protection.[58] Such marks include "Kodak" and "Xerox" but do not include "Domino" or "Holiday."[59] To determine if a mark is "strong" or "weak," courts look at the number of other registered marks that use the mark and what type of product they relate to, if the marks are in competing markets, and the general meaning of the word.[60] For example, "Domino" as applied to

[51] *Morse*, 56 U.S. 62.
[52] *Id.*
[53] 35 U.S.C. § 102.
[54] *Id.*
[55] *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966).
[56] *KSR Int'l Co. v. Teleflex Inc*., 550 U.S. 398, 416 (2007)
[57] *Id.*
[58] Amstar Corp. v. Domino's Pizza, Inc., 615 F.2d 252, 260 (5th Cir. 1980).
[59] *Id.* at 259.
[60] *Id.*

the brand of sugar was not found to be a strong mark because over 72 third-party registrations made use of the mark.[61] However, EXXON "is rarely used by parties other than the owner of the trademark," so it is a strong mark.[62] The court held EXXON is a strong mark because, of the five other companies that at one time used the similar mark "Texon", none were in business at the time of the suit, and there was no connection between the town of Texon and any of the brands that used the mark Texon.[63] In relation to a conlang, if the name of the conlang is fanciful or arbitrary in relation to the invention, and not widely used by others, then there is a strong chance that it could qualify for trademark protection. However, as described in the next section, the name of the language, no matter how fanciful, is a generic term because languages are excluded from trademark protection as not associated with a good or service. Therefore, strong trademarks can only be registered for goods and services associated with the language that designate a single source of the good or services, such as the name of the conlang. Paramount holds a trademark for Klingon, and KLI has the right to use the trademark, but just like the copyright for Klingon, the trademark protection of Klingon has apparently never been challenged, so the validity of the trademark is untested.[64]

C. Generic Marks

Generic terms, or a term "that refers to the genus of which the particular product is a species," cannot be trademarked.[65] In *Loglan Institute, Inc. v. Logical Language Group, Inc.*, the court held that "a name originated for a new language is inherently not registrable for the language" because the language is not a good or service.[66] Additionally, the name of a language cannot be trademarked for a dictionary of the language because it does not indicate the origin of the good.[67] To determine if the term is a "generic designation identifying the language", courts look at how the relevant public perceives the mark, and if it denotes a single source of goods or services.[68] In *Loglan*, the relevant public were the people involved in creating or researching the language, and those who have written about the language.[69] The relevant public thought of Loglan as the generic name for a logical language.[70] The relevant public for other conlangs will likely consist of a similar group of people. Although, if the conlang is related to another work of art, such as a movie or book, then the relevant public will likely consist of the larger group of consumers of that work of art since they are exposed to the conlang. The relevant public's understanding of the term can be determined through testimony, surveys, and use in publications.[71] If the trademark is only used to identify the language, then it is not afforded trademark protection because it does not meet the statutory requirement of denoting a single source of goods or services, as described in *Loglan*.

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[61] Exxon Corp. v. Texas Motor Exch. of Houston, Inc., 628 F.2d 500, 504 (5th Cir. 1980)
[62] *Id.*
[63] 15 U.S.C.A. § 1064 (West); Park 'N Fly, Inc. v. Dollar Park & Fly, Inc., 469 U.S. 189, 193-94 (1985).
[64] Adelman 27 Harv. J. Law & Tec at 553-54.
[65] Loglan Inst., Inc. v. Logical Language Grp., Inc., 962 F.2d 1038, 1040 (Fed. Cir. 1992)
[66] *Id.*
[67] *Id.* at 1041.
[68] *Id.*
[69] *Id.*
[70] *Park 'N Fly*, 469 U.S. at 194.
[71] W. E. Bassett Co. v. Revlon, Inc., 354 F.2d 868, 871 (2d Cir. 1966).

D. Merely Descriptive Marks

A "merely descriptive mark" that describes "the characteristics of a good or service" can be registered if it has acquired secondary meaning.[72] Determining if a descriptive mark has secondary meaning is a fact dependent analysis to determine if the mark is used by the public to identify the source of the products.[73] In *Basset v. Revlon*, the trademark "Trim" used by a manufacturer of manicure implements was a descriptive mark with secondary meaning because consumers associated the mark with the manufacturer.[74] Factors the court examined to determine if the mark obtained secondary meaning were the length of use of the mark, amount of advertising using the mark, and confusion to the public if someone else uses a similar mark.[75]

For a conlang, if terms associated with the language use the term "language" in the mark or the mark is something that describes language, then it may be only a descriptive mark. To show secondary meaning, evidence would need to be presented to show that the consuming public associates the mark only with one source, and that if anyone else uses the mark it will confuse the public. Since this is a fact intensive analysis, more specific advice as to a successful trademark requires information about the purpose of the mark, the use of the mark, and the public's identification of the mark.

[72] *Id.*
[73] *Id.*
[74] *Loglan*, 962 F.2d at 1040-41.
[75] *Id.*