

# USING NUMBERS AS LETTERS IN VISUAL COMMUNICATION AND THE EFFECTS OF THIS USE ON LEGIBILITY

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## ABSTRACT

*In the 21<sup>st</sup> century, typography has developed as a means to enrich and broaden the borders of visual communication providing a wide range of new approaches. These new approaches provide a challenging and unexpected perspective for visual communication, such as using numbers instead of letters to enable designers to create new ways of expressions. We are indeed familiar with numbers being used to represent letters, syllables or phonemes. Today we experience two basic approaches in using numbers instead of letters. The aim of the first approach is to use numbers as phonetic symbols, and make the viewer to perceive them in this manner. Second approach uses the shape resemblance of numbers to the letters. It aims to make the viewer to perceive the numbers as they are and also as letters. These new ways of graphic approaches have opened a new window in visual communication and enabled designers to express two or more concepts at the same time. Therefore, the essence of syntax has evolved. The purpose of this article is to represent the existing design approaches in using numbers as letters and discuss which ones are favorable to express, introduce or promote a message. Moreover, it aims to evaluate some examples to investigate how legibility is affected. This article is based on a descriptive analysis to define and sample the existing design approaches of using numbers as letters as well as how the viewer perceives them and how they should be designed in order to deliver the message more efficient.*

**Key Words:** Letters, Numbers, Legibility, Graphic design, Visual communication

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# GÖRSEL İLETİŞİMDE HARF OLARAK RAKAMLARIN KULLANIMI VE BUNUN OKUNURLUĞA ETKİSİ

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## ÖZET

21. yüzyılda görsel iletişimin sınırlarını genişletmek ve zenginleştirmek anlamında pek çok yeni tipografik yaklaşımda bulunulmuştur. Bu yeni tarz yaklaşımlar görsel iletişime beklenmedik perspektifler kazandırmıştır. Örneğin grafik tasarımda harfler yerine rakamların kullanılması fikri, tasarımcıların yeni ifade biçimlerinde bulunmalarını sağlamıştır. Öyle ki, artık harflerin, hecelerinin veya seslerin yazımsal ifadesi yerine rakamların kullanılmasına aşına olmuş durumdayız. Günümüzde bu alanda kullanılan 2 farklı yaklaşımla karşılaşmaktayız. İlk yaklaşımın amacı, rakamların harflerle ve hecelerle olan ses benzerliğinden yola çıkmak ve izleyicinin onları sesleri ifade eden semboller olarak algılamalarını sağlamaktır. İkinci yaklaşım ise rakamların harflere olan biçimsel benzerliğinden yola çıkmaktır. İzleyicinin rakamları hem oldukları gibi hem de harf olarak algılamasını sağlamaktır. Bu yaklaşımlar tasarımcılara yeni bir bakış açısı kazandırarak, tasarımcıları iki ya da daha fazla içeriği aynı anda ifade etme olanağına kavuşturmuştur. Söz dizimi kurallarının özü evrimleşmiştir. Bu makalenin amacı da harfler yerine rakamların kullanımının bir mesajı iletmede ne kadar etkili olduğunu incelemektir. Dahası okunurluğun bu durumdan nasıl etkilendiğini örnekler üzerinden göstermeye çalışmaktır. Bu makale, harflerin yerine rakamların kullanıldığı örnekleri inceleyen betimsel analize dayalı bir makaledir. İzleyicinin bu yaklaşımları nasıl algıladığı ve bu yaklaşımın bir mesajı izleyiciye daha etkili nasıl iletebileceği örneklerle gösterilmeye çalışılacaktır.

**Anahtar Kelimeler:** Harfler, Rakamlar, Okunurluk, Grafik tasarım, Görsel iletişim

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## 1. INTRODUCTION

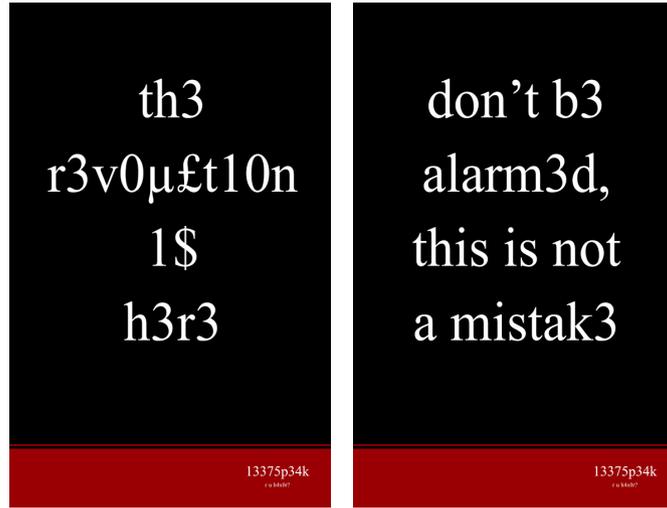
The effect of rapidly emerging technology in present era created a concern on designers to search for different and more efficient approaches of visual communication methods. Today, extraordinary visual communication and graphic approaches attract the attention of viewers more than ordinary ones, for instance works which are done with sense of humor and wit can raise attention by evoking curiosity among the viewers. Raising attention means; turning the message into sifted data and having a chance to convey it to the viewer by stopping them rushing from one place to another. Our challenge today is to invent ways of sifting through the multitudes of data that bombard us daily, often numbing our senses and scrambling our brains. “Katz (2012)”

The need for swifter communication is emerged in the beginnings of 1980s as the chat services and SMS (short message service) texting started to be used by people. SMS<sup>1</sup> is an electronic communication sent and received by mobile phone. This SMS language enabled people to gain time and space in virtual communication world. For example, people started to use 2 instead of typing “to”, 4 instead of “for” and even they used “8” in “gr8” instead of typing “eat”. The design of grammar is evolved by changing the construction of phrases into numbers, while the spelling of a language is still the same. Over time, this shortcutting evolved to a different alphabet, an alphabet that directly uses the resemblance of numbers to letters. It was also given a name, which was called “Leet” and it is written as l337, where 1=L, 3=E, and 7=T. “Thomas (2013)”. This language was originally created as an unbreakable code for elite (referred to as e-leet or ‘leet’) computer users by using common characters and symbols on a computer keyboard to replace letters “Ferrante, (2008)”. It is an alternative alphabet and later designed as a font<sup>2</sup> for English and it was used primarily on the Internet subculture that is pushing the boundaries of traditional language. It uses various combinations of characters and numbers to replace Latin letters. It is a specialized form of symbolic writing, a substitution cipher widely used in online gaming and computer hacking. Numbers which are found long before the evolution of written language are the first samples of encoding an abstract context “Lunde, (2009)”. Although many Leet font varieties exist in different online communities, here are some Leet Speak Font Poster examples designed by Dave Thomas (Visuals 1, 2, 3).

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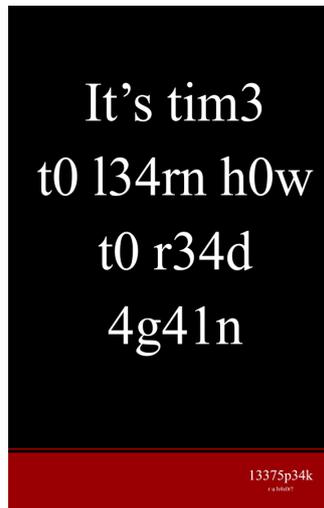
<sup>1</sup> Text Message, [https://en.oxforddictionaries.com/definition/text\\_message](https://en.oxforddictionaries.com/definition/text_message)

<sup>2</sup> A font is a set of characters of the same size and style containing all letters, numbers and marks needed for typesetting “Carter, Day, Meggs (2002)”



*Visual 1. Dave Thomas, "The revolution is here" leet speak poster  
<http://www.iamdavethomas.com/print/leetspeak-poster-series/>*

*Visual 2. Dave Thomas, "Don't be alarmed this is not a mistake" leet speak poster  
<http://www.iamdavethomas.com/print/leetspeak-poster-series/>*



*Visual 3. Dave Thomas, "It's time to learn how to read again" Leet speak poster  
<http://www.iamdavethomas.com/print/leetspeak-poster-series/>*

Such attempts in using the resemblance of numbers to letters opened a new window in the minds of designers. Today this approach is used in many kinds of graphic designs such as, brandings, logo-marks, posters, movie titles, advertisements, information design etc. Legibility of a font is now standing on a thin edge since the visual appearance of the context is gaining greater importance. Font legibility is the function of many factors in addition to the way the font is designed and drawn, among which are: size at which used, letter spacing, leading, color, value and especially context "Katz (2012)".

## 2. Legibility and Basic Design Approaches in Using Numbers as Letters

Legibility is related to how fast the reader recognizes the letter or the letter combination which is each word “Brady (1988)”. All the parts of a letter, including the serifs are important to legibility. Legibility is widely misunderstood; it means “ability to be read.” It is the clarity of visually presented text which is affected by factors such as the size of the text, the contrast between similar letters, the quality of printing, the line spacing, word spacing and the shape of individual letters.<sup>3</sup> The characteristics of letters and numbers should make it possible to differentiate one from another and therefore easily deciphered and understood by the viewer. Therefore, using numbers instead of letters due to their resemblance can compromise the legibility of the written word or the phrase. On the other hand, according to the continuance principle of gestalt theory<sup>4</sup>, adjacent elements are positioned to be understood as a whole “Bowers (2011)”. That is; human mind does not read every letter by itself, but the word as a whole, numbers that are used, as letters can still be leastwise legible. Which is why using numbers as letters in visual communication, needs to be executed with a good sense of design in order to deliver the desired content or the message in a more efficient way. This re-search is limited with two basic design approaches in using numbers as letters: First approach is, using numbers as letters according to their phonetic sound. Second approach is using numbers as letters according to their shape resemblance.

### 2.1. Using Numbers as Letters According to Their Phonetic Sound

In this approach, numbers used as phonetic sounds with letters to verbally sound out a word. Using numbers as letters according to their phonetic sound, is to use them to represent the desired sound of a word, syllable or phoneme. The term phonogram refers to a character or symbol used to represent a word, syllable or phoneme “Clair, Snyder, (2005)”. Moreover, it is very widely used and popular amongst graphic designers who want to; create attention, use less space in composition and express two meanings at the same time. For example, The Weinstein Co. which is an American independent film studio has released posters for Academy Award winning writer/director Quentin Tarantino’s latest film “The Hateful Eight”. In the logo on one of the posters, designer used the number “8” instead of letters “ate” in the word “hate”, thus created a graphic image both indicating number “8” and the sound of it. At first sight number “8” stands out and then, eye makes connection between the number “8” and the word “eight” later the word “hateful” is read. It is neither perfectly legible nor illegible. Just in between. The typeface of the logo deliberately selected as a slab-serif in order to reflect the western style and number “8” is perfectly blended in the logo in order to create unity (Visual 4).

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<sup>3</sup> Clair, Basic-Snyder, *A Typographic Workbook: A Premier History, Techniques and Artistry*, 2005, p.184

<sup>4</sup> This branch of psychology examines how we perceive visual form by organizing its components into a meaningful whole “Bowers (2011).”



Visual 4. <http://www.blackfilm.com/read/wp-content/uploads/2015/08/The-Hateful-Eight-logo.jpg>

Furthermore, another animation movie poster can be a good example of using phonetic sound of a number instead of a syllable (Visual 5). In this poster design, the number “2” is used instead of preposition “to”. So the designer both indicates that the movie is the second of the series and the preposition “to” between the letters “escape” and “Africa”. What he/she achieved by doing this is more space in the composition and created an attention on the movie title.



Visual 5. Anonymous,  
<https://s-media-cache-ak0.pinning.com/564x/e6/32/af/e632afeaebd87b13c326b257a691f60.jpg>

Additionally, on a print advertisement of EASYJET which is executed by the creative team of “Hugo Bone and Tony Elements” agency, number “2” is used instead of preposition “to” in order to indicate both the seat numbers and the famous phrase of Hamlet; “to be or not to be”. “2B” as a seat number is read at first glance then the whole phrase makes sense. Arising→ the question whether you prefer to sit in front of the plane for an extra charge or not? The witty approach makes the title more meaningful and interesting (Visual 6).



Visual 6. Hugo Bone and Tony Elements Creative Team, <http://hugoandtony.co.uk/easyjet/>

## 2.2. Using Numbers as Letters According to their Shape Resemblance

In this approach, the shape resemblance of numbers to the letters are used rather than referring to a phonetic sound. Numbers are directly used instead of letters to form the word or phrase. This approach is generally used to infer two meanings simultaneously. The resemblance of some numbers to specific letters can be so obvious to designers that they prefer to use them instead of letters in their works in order to evoke feelings or information in the minds of viewers. For instance, number “4” can be used instead of letter “A”, number “8” can be used as letter “B” or lowercase “g”, 7 can be used as letter “T”, 5 can be used as letter “S” and 1 can be used as letter “I” according to their shape resembles to the letters. Examples can be multiplied and varied according to the rotation of numbers. Such as the artwork, which is designed by Chachi Hernandez is a good example of showing the resemblance of numbers to letters (Visual7) The word “Numbers” is created solely using numbers instead of letters. Legibility is compromised as the proportions of the numbers are different than the letters. However, the word “Numbers” is still apprehensible.



*Visual 7. Chachi Hernandez, "Numbers" <http://www.chachihernandez.com/misc.html>*

Another example can be the branding of "Eight Branding Communications" from Budapest, Hungary. The agency's logo-mark is a classic example of one those simple yet so clever designs that immediately draws sighs of appreciation and approval. Formed out of italicized lowercase lettering, the word "eight" is reinforced by the clever displacement of the letter "g" with an actual number "8"; thus, viewer both sees and reads the number eight simultaneously, which is making a double impact (Visual 8).



*Visual 8. Creative Director Gergely Kadar, "Eight" logo-mark design  
<http://www.logo-designer.co/design-studio-eight-brand-communications/>*

Making double impact on viewer is an effective way of communication in the means of expressing two concepts at the same time by using single image. For example, letters "S" and "I" are substituted by numbers "5" and "1" in order to express the festival's 51st anniversary on the poster design for the "51st Thessaloniki International Film Festival" which is designed by "Dolphins Communication Design". The calligraphic style of letters also kept in numbers in order the word "FESTIVAL" to be perceived as a unified whole. Addition to that, number "51" is emphasized by using a different color (Visual 9).



*Visual 9. Dolphins Communication Design, "51st Thessaloniki International Film Festival Poster" [http://www.filmfestival.gr/inst/Festival/gallery/PressReleases/2010/51\\_TIFF/2010\\_11\\_09\\_51\\_tiff\\_poster.jpg](http://www.filmfestival.gr/inst/Festival/gallery/PressReleases/2010/51_TIFF/2010_11_09_51_tiff_poster.jpg)*

Here's yet another example to substituting numbers with letters can be an anniversary logo-mark proposition for a jewelry company called "ATASAY" in Turkey. Graphic designer Çağlar Okur proposed to substitute "T" with "7" and "S" with "5" on the original logo-mark of the company to express the 75th anniversary of the company (Visual 10). The logo-mark is still legible as he provided the integrity by using numbers of the same type family. He also created an emphasis on "75" by differentiating the color.

ATASAY

original logo-mark

A7A5AY

proposed logo-mark

*Visual 10. Çağlar Okur, "ATASAY 75th Anniversary Logo-Mark Proposition"*

When we look at the advertisement design of Kit Kat: we see that the letters “A” are replaced by number “4” and the letter “B” is replaced by number “8” on the brand’s tagline aiming to engage a sense of fun on both the brand and the consumers. J. Walter Thompson advertising agency of London, created this advertisement for Kit Kat that subverts a universal symbol of buying, the barcode. Two fingers of Kit Kat are part of the barcode along with the brand’s tagline, “Have a break” (Visual 11). Again legibility is compromised a little but the message is delivered in a more interesting way.



*Visual 11. J. Walter Thompson advertising agency,  
[http://www.tomstockton.us/jokes/picture\\_pages/pictures\\_file\\_050.htm](http://www.tomstockton.us/jokes/picture_pages/pictures_file_050.htm) HAVE A BREAK*

As we mentioned before, the resemblance of numbers to letters are important for legibility. in the title of “FANTASTIC 4” movie, the word is stylized as FANT4STIC by replacing number “4” to letter “A” not just because of the shape resemblance but because of its central position. The word “FANT4STIC” is still legible because the eye perceives number “4” and completes the rest of the phrase automatically (Visual 12). The FANT4STIC title is often credited as the beginning of a new renaissance in title design because it shows us that a title of a movie can do more than just the name of a movie.



*Visual 12. J. Anonymous, “FANT4STIC movie title”  
<https://timedotcom.files.wordpress.com/2015/01/fantastic-four.jpg?quality=65&strip=color&w=1012>*

### 3. CONCLUSION

As a conclusion, attributing meanings other than the primary objectives of numbers and using them as design elements instead of letters on various graphic designs are broadening the borders of visual communication for sure, while compromising the legibility of text. This compromise can be worth it when the context gains more depth. When the context gains more depth, it becomes more interesting and attractive to the viewers. Viewed symbolically, numbers represent more than quantities; they also have qualities “Bruce, Mitford, (2004)”. Two approaches of using numbers as letters in this article are new ways of depicting a message for sure. Numbers can be taken advantage of either by referring to a sound or by resembling to the shape of a specific letter. Both approaches are indicated to emphasize the qualities of a number. Based on this point of view, using numbers as letters give chance to designers to infer two message simultaneously. This inference can be perceived by using numbers to refer a sound of a letter, syllable or a phoneme. Furthermore, using numbers as letters also enables designers to create simple yet effective designs by taking the advantage of letter-like shapes of specific numbers. Therefore, making viewers to read text and to see the content simultaneously as a unified whole. The important point is to combine numbers and letters in a way to create unity, continuity and integrity. In the examples that are given above unity, continuity and integrity are provided by proper typeface selection, suitable color choice and consistency in spacing between letters and numbers. Additionally, while using numbers as letters, the word or the phrase should be kept short and Gestalt principle of forming a unified whole should be kept in mind. Lastly as German architect and designer Ludwig Mies van der Rohe said “God is in the details” which he means details matter, and whatever it is you’re doing should be done thoroughly and with an attention to detail. Using numbers as letters can help designers to explore the next possible evolution of written language, discover a new language unknowingly.

## REFERENCES

- Becer, E. (1997). *İletişim ve Grafik Tasarım [Communication and Graphic Design]*. Dost: Ankara, Türkiye.
- Bruce, Miranda (2004). *The Illustrated Book of Signs and Symbols*. Barnes & Noble: China.
- Bowers, John (2011). *Introduction to Graphic Design Methodologies and Processes*. John Wiley & Sons: Kanada.
- Brady, Philip (1988). *Using Type Right*. North Light Books: Ohio, USA.
- Clair, Cate and BUSIC S. Cynthia (2005). *A Typographic Workbook: A Premier History, Techniques and Artistry*. John Wiley & Sons: New Jersey.
- Carter, Rob, DAY, Ben and MEGGS, Philip (2002). *Typographic Design: Form and Communication*. John Wiley & Sons: New Jersey.
- Ferrante, C. M., FERRANTE, Thomas, (2008). *E-Leetspeak Puzzle Book*. AuthorHouse: USA.
- Jean, Georges (1999). *Signs, Symbols and Chiphers*. Thames Hudson: İngiltere.
- Karabıyık, F. B. (2012). *Sözün ve Sükutun Renkleri*. İz Yayıncılık: İstanbul.
- Karahancı, İbrahim (2016). *Sözcük Birimlerin Üslup Oluşumuna Katkisi I, Uluslararası Türkçe Edebiyat Kültür Eğitim Dergisi Sayı: 5/4: Türkiye*
- Katz, Joel (2012) *Designing Information*. Wiley & Sons: Canada
- Lunde, Paul (2009), *Şifreler Kitabı*. NTV Yayınları: İstanbul, Türkiye
- Meggs, Philip, PURVIS, Alston (2006), *Meggs' History of Graphic Design*. Wiley & Sons: Canada
- Sarıkavak, N. K. (2003) *Çağdaş Tipografinin Temelleri*. Seçkin Yayıncılık: Ankara, Türkiye.
- Sharma, Bhu, Dev. (2016) *Encyclopedia of Science: Salem Press*.
- Turgut, Erol (2013). *Grafik Dil ve Anlatım Biçimleri*. Anı Yayıncılık: Ankara, Türkiye.
- Twemlow, A. (2006). *What is Graphic Design for?* Roto Vision: UK
- Uçar, T. F. (2004). *Görsel İletişim ve Grafik Tasarım [Visual Communication and Graphic Design]*. İnkilap Publisher: İstanbul, Türkiye.
- Vignelli, M. (2010). *The Vignelli Canon*. Lars Müller: Baden, Switzerland.

## Web Resources

- Dave Thomas, "Leetspeak Poster Series" <http://www.iamdavethomas.com/print/leetspeak-poster-series/>  
(Date Accessed: 27 Ekim 2016)
- "Hateful 8 Movie Title"  
<http://www.blackfilm.com/read/wp-content/uploads/2015/08/The-Hateful-Eight-logo.jpg> (Erişim Tarihi: 27 Ekim 2016)
- "Madagaskar Escape to Africa Movie Title"  
<https://s-media-cache-ak0.pinimg.com/564x/e6/32/af/e632afeaebd87b13c326b257a691f60.jpg>  
(Date Accessed: 27 Ekim 2016)
- Hugo Bone and Tony Elements Creative Team "Easy Jet Advertisement Poster"  
<http://hugoandtony.co.uk/easyjet/>  
(Date Accessed: 27 Ekim 2016)
- Chachi Hernandez, "Numbers"  
<http://www.chachihernandez.com/misc.html>  
(Date Accessed: 27 Ekim 2016)
- Gergely Kadar, "Eight" logo-mark design

<http://www.logo-designer.co/design-studio-eight-brand-communications/>

(Date Accessed: 27 Ekim 2016)

Dolphins Communication Design, "51st Thessaloniki International Film Festival Poster" [http://www.filmfestival.gr/inst/Festival/gallery/PressReleases/2010/51\\_TIFF/2010\\_11\\_09\\_51\\_tiff\\_poster.jpg](http://www.filmfestival.gr/inst/Festival/gallery/PressReleases/2010/51_TIFF/2010_11_09_51_tiff_poster.jpg)

(Date Accessed: 27 Ekim 2016)

Walter Thompson advertising agency, "Have A Break – Kit Kat Print Ad."

<https://jwtd.co.uk/work/have-a-break-have-a-kitkat>

(Date Accessed: 27 Ekim 2016)

"FANT4STIC movie title"

<https://timedotcom.files.wordpress.com/2015/01/fantastic-four.jpg?quality=65&strip=color&w=1012>

(Date Accessed: 27 Ekim 2016)

