

Smile! You're on-line

An Enquiry into the History of the Emoticon

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In this paper the smiley (or emoticon) is investigated: a short history of the smiley, the conditions surrounding its conception, its purpose and the way it has evolved throughout recent multimedial history. Particular interest goes to how the emoticon tries to make up for the lack of emotional information that is being conveyed through mechanistic conduct (CMC: computer-mediated communication): computers and the internet. Though the phenomenon is most commonly referred to as a smiley, it is far from just that nowadays. Emoticons are visual augmentations—deriving from textual elements that ought to mimic human interrelational behavior—of texts. Where will this development ultimately end up? Do we move towards a textual world of documentation and registration or do we bend off towards visuals as means of quicker and - supposedly - more effective means of communication? An inquiry into the thin line that divides text from image, where the two meet and where they overlap or find discrepancies.

1. Conception of the smiley

We live in a digital world, the so-called information era. We document and record and stash all the available information in digital archives, based on computer sciences. Computers are machines that do nothing more than calculation, based on human input and programming. Text¹ is what the digital discourse is made of, and text is what it can produce, be it strings of 1's and 0's (binary code), digitally accessible volumes of prose or science (basically also binary code) or imagery (also an elaborate composition of 1's and 0's, interpreted through software to be depicted as an image—a *protocol*). Information takes its shape through the mechanical conduit we know as the computer: the interpreter of code.

In this virtual world (a for human beings inaccessible place inside the hardwiring of the calculating machines) nothing but text exists. These texts are mutually connected in the internet (where it becomes *hypertext*), the protocol that allows the textual virtual discourses of different computers to communicate with each other, allowing its human operator to communicate with other human communicators anywhere on the globe. The transmission of information between these two actors takes place through the mechanical conduit, via textual input, and doesn't allow the implementation of subtle nuanced visual cues like body language and expressions or vocal inflection. The use of humor like irony, sarcasm and cynicism is thus hardly interpretable, which could prove a problem in effective communication and could even start serious arguments based on misinterpretation.

This problem was encountered in the childhood years of the internet, when it was still known as ARPANET,² supposed to connect computers of educational institutions to share knowledge and pursue the ancient *Bildungsideal*, "Knowledge is power". Professor Scott E. Fahlman, affiliated with the computer science department of Carnegie Mellon back in the early 80's, acknowledged the problem of effective emotive communication. This was especially the case with humor, poorly recognized by Fahlman's colleagues, I assume. Or poorly practiced. Carnegie-Mellon made extensive use of online bulletin boards where a variety of announcements was made. These were predominantly serious in nature, but there was also the occasional wit to be detected. That is, if the wit was recognized as such.

¹ Mind you, I am not referring to the philosophical notion of text much practiced by postmodernists, as a synonym for discourse. Text, in this case, is a collection of signs, letters or numbers, that form legible information, either for a machine or a human being.

² <http://www.zakon.org/robert/internet/timeline/>

Fahlman noticed that the human ‘tagging’ of the intended wit was failing. The textual discourse didn’t allow emotive cues. The solution should be to tag remarks with a marker to emphasize its emotive nature, preventing lengthy tirades born of misinterpretation of sarcasm that frustrated the original intent of the announcement.³ A difficulty in this was that CMC was ASCII-based in those days: not allowing the use of imagery, unless this image was composed of letters, numbers or punctuation marks.⁴ Fahlman contributed to a solution by suggesting the use of :-)⁵ that should be read sideways, as a highly simplified smiling face (possibly inspired by the famous smiley-design by Harvey Ball in 1963).⁶ For dead-serious matters the unhappy equivalent :-(was put forward.⁷ Ergo, the smiley was born, introducing the emotive icon, or, in a *portmanteau*, the emoticon.

Professor Fahlman couldn’t ever have remotely estimated the influence of his thumbing brainchild. Today’s information technology-based world, relying heavily on the text-based digital world the ARPANET has grown into, needs visual augmentation badly. Today’s assumption is, that if it is not on the internet, it does not exist. The sheer size of it is immeasurable, it expands at enormous rates. A massive part of global communication takes place through internet bandwidth, squeezing the “*now and then, here and there, real and artificial, original and manipulated*”.⁸ People can lead reclusive lives but still be very active in virtual social existences. Modern applications specially designed for virtual leisure tie people to their desks, endlessly pursuing gain of knowledge, getting up to speed with the most recent *lolcats* (an example of a *meme*, I will get back to later) or just kill time and involve in social traffic with strangers in non-existent⁹ virtual spaces like *Second Life* or *HabboHotel*.¹⁰ These virtual environments demand digital equivalents of visual cues, eventually going back to professor Fahlman’s smiling face.

The sky seems to be the limit in modern computer science. The latest attempt at fathoming computer science and human minds concerns the emulation of emotions and the recognition of them by computers, software that knows what the user wants and gives it to him, eventually aiming at assembling a digital (or virtual) brain,¹¹ mimesis of the workings of the human brain, working towards perfect artificial intelligence. So, for as far as the virtual reality hasn’t yet overtaken the empirical one, how do we extend our existence in this new world of text-based interfaces and binary code? How do we utilize our human behavior in digital environments and implement emotional cues and layers human beings practice and use in communication, consciously or not? What has professor

³ <http://www.cs.cmu.edu/~sef/sefSmiley.htm>

⁴ ASCII-art, elaborate text-based drawings, has unfortunately lost most of its charm, but is still worth a Google-query.

⁵ It actually demands the necessary actions to have the smiley appear in its text-based shape, since Microsoft Word has the visual image of the smiley (☺) pop up as an automatic replacement of the ASCII-version. This gives an illustration of the implementation of the smiley in modern culture.

⁶ <http://www.bitwisegifts.com/page/bg/CTGY/smiley-face-history>

⁷ <http://www-2.cs.cmu.edu/~sef/Orig-Smiley.htm>

⁸ Douglas Davis, “The Work of Art in the Age of Digital Reproduction (An Evolving Thesis: 1991-1995),” *Leonardo*, Vol. 28, No. 5, Third Annual New York Digital Salon (1995), pp. 381-386, 383.

⁹ Again, forget any philosophical connotation to the word existence. With non-existent I mean there is no empirical referent.

¹⁰ *Second Life* being a very mature equivalent of empirical life in three-dimensional virtual reality and *HabboHotel* serving as something similar, though less sophisticated, for children, exemplifying the internet’s grip on demographic varieties.

¹¹ <http://portal.acm.org/citation.cfm?id=1150561> ; on emotion recognition & <http://www.cs.uu.nl/research/ozis/jj.html> ; similar research subjects in development by one of my professors at Utrecht University.

Fahlman's smiley face grown into and how is it manifest in the virtual world of text? What does the human brain do with these impulses and where does text move into empirical subtext?

2. Virtual emotivism

Human interaction depends on visual cues like vocal intonation and body language. If these are taken from the equation, language becomes an ambiguous means of communication, prone to misinterpretation. To make up for the lack of these cues, textual communication is being enriched by emoticons. From their conception they have been increasingly popular and nowadays they do not only communicate irony or sarcasm, but also much more nuanced messages. The new digital generation knows how to read and apply these visual augmentations of the textual discourses, due to high exposure and practice in the working of icons. One could say that digital communication through on-line blackboards, fora and instant messaging programs is as effective and the spoken word was one generation back. The most important issue, however, is that emoticons can be deceiving, and are gladly made use of in this way. Does the lack of sincere emotion in im-convo's (instant messaging conversation) thereby add up to the increasing individualism and isolation it implies for a generation of internet users?

All in favor: smile!

The emerging smiley-culture is a mixed blessing. There's some serious opposition to this modern way of expressing one's feelings. Editor Leigh Buchanan, responsible for a last-page column of *Inc. Magazine*, expresses her disgust with the smiley by accusing them of not contributing to the human discourse.¹² This is a fair indication of her not belonging to the *folk* or subculture that benefit from emoticons by making use of them. There are numerous advocates for the use of the smiley as an addition to the discourses, in that it says things in "feelings", conveyed by an image just like art (commonly) says things through imagery instead of text.¹³ Some might consider the image to rule over the text, because text only needs more text to clarify and an emotion is honest in itself and doesn't leave much room for misinterpretation. Buchanan calls emoticon "juvenile glyphs", stigmatizing the emoticon as part of an ignorant youth-culture. But why place the textual discourse on a pedestal? The emoticon will not chase written text out of the discourse. It only contributes to understanding in virtual reality, as the decoding and processing icons demands a double effort from the brain. Research learns that "translating" an icon demands both recognition and the self-generation of information. An icon, like an emoticon, is an impoverished stimulus, or gathering of stimuli, depicting a generic class of objects. The brain processes icons in the *visual word form area* (VWFA), located in the *left bilateral fusiform gyrus*, meaning it demands recognition, interpretation and additional generation of information to turn the icon—generic objectclass—into something workable.¹⁴ It demands a bigger effort to 'decode' an emoticon than to decode a word, implying that there's a deeper meaning to the visual representation (albeit highly abstracted) to emoticons than to words. Thus, the effort in 'reading' another's mental state or mood is simplified by the use of emoticons. Apart from the core meaning, or interpretation, of the emoticon, there is also

¹² Leigh Buchanan, "The Office: I am not ☺," *Inc. Magazine* (March 2005), 144.

¹³ Neil Stephenson, "Smiley's people," *The New Republic* (September 13th 1993), 26.

¹⁴ Y.-W. Shin et al., "Objects and their icons in the brain: The neural correlates of visual concept formation," *Neuroscience Letters* 436 (2008), 300-304

the context in which it is uttered to take into account. That should generally make the decoding only easier, since it provides extra information on the nature of the dialogue. However, the higher efficiency of emoticons in the conduct of emotivism could imply cerebral laziness due to the short attention span as a result of the overload of visual information that surrounds us nowadays. A second explanation for this laziness is the lack of interaction in traditional teaching and learning, while students nowadays demand this, as a result of the interconnectedness of their overall environments.¹⁵ This could develop into a higher awareness of (interactive) visual information or a stricter selection of visual input.

Nowadays, the world spins round much faster than it did in the days of Leigh Buchanan's youth—placing her on the proverbial *offside*, so to speak. In the modern discourse there is a lot less time to consume a lot more information. Just look at the crowded shopping streets or Times Square and it will be obvious that imagery does a better job at conveying the message than text. We glance over newspapers to find the gist of the message so we can move on to the next page and we rush through television channels to find the most relevant one.¹⁶ Only to stick to it for a couple minutes. Our eyes and our brain is highly trained to analyse the subtle cues for relevancy and decode them into workable dialectical information. To use the lengthy body of text Buchanan suggests to explain the nature of a message is counterproductive. In an age of efficiency, who would prefer a string of words to a 3- (-:)), or even 2-character (:)) tag, universally applicable?

¹⁵ Diana G. Oblinger and James L. Oblinger, eds. *Educating the Net Generation* (Educause, 2005), 2.13.
<http://www.educause.edu/educatingthenetgen>

¹⁶ Although it does take a lot of reading and highlighting to find adequate, accurate and relevant sources to base these findings on.

Hurrah ☺! Boo ☹!

Whether we agree on something, or on a higher level, find it morally applicable, is not only expressed in language. With a little creativity, this can be rooted back 300 years. As George Berkeley stated back in 1710:

*“The communicating of Ideas marked by Words is not the chief and only end of Language, as is commonly supposed. There are other Ends, as the raising of some Passion, the exciting to, or deterring from an Action, the putting the Mind in some particular Disposition.”*¹⁷

This complies with the philosophical notion of emotivism, where emotions as a message take an important place in human conduct. The ‘other ends’ Berkeley mentions are easily transferrable to the need for expression in online environments like im-convo’s. Only, since there is a lack of focus and a short attention span that characterize the generation that makes most use of these means of communication, an elaborate waterfall of words—quasi-poetry maybe—that should convey an emotional state, is far from effective. Not only does the emoticon thus function as a tag to indicate a certain style or irony, it also adds a new layer of information to the discussion. The visual and the legible complement one another by adding information to the other. The smiley turns a remark into a joke and the text indicates the nature of the smiley. In that respect, the emoticon does function as a word,¹⁸ but also as the *signifié* itself: the smile or happiness or wit that is meant to go with the remark, instead of a textual interpretation of it.

It could be argued, though, that emoticons aren’t really non-verbal. Since they are deliberately interjected in the written version of spoken word—lacking the prerequisite of correct spelling and grammar—they are part of the idiom used deliberately and thereby only convey consciously chosen information and cues. The visual idiom sinks into the textual one. Not only implicitly and unintendedly (since the smiley—:)—is almost an automatic reflex, as I myself have experienced, that outweighs scriptorial expression of joy in quantity by far),¹⁹ but also explicitly in that the punctuation marks of the colon, :, and the closing parenthesis,), automatically dissolve into the graphic image of the smiling face, ☺ (in various forms, dependent on the software one uses). For these reasons the smiley is a natural part of our discourse, though restricted to the subgroup—the Net Generation²⁰—that makes use of the virtual/textual discourse. This particular *lore* adds to the sense of community but also articulates one’s personal preferences. There’s even sub-subgroups using a specific subkind or dialect of emoticons, either customized design or as a feature offered by specific IM applications. A striking example of the overflow of the emoticon from written text to image to (dynamic) pictorial representation of mood as a feature of *Windows Live Messenger* software. It offers the opportunity to display one’s own face while

¹⁷ <http://www.mnstate.edu/gracyk/courses/web%20publishing/BerkeleyTreatiseIntro.htm>

¹⁸ “Word meanings determine sentence meaning and the meaning of the sentence as a whole determines the meaning of individual words.” Paul Whitney, *The Psychology of Language* (New York: Houghton Mifflin, 2001) p. 34-35.

¹⁹ Here a tiny philosophical reference to H.P. Grice’s *conversational maxims* is mandatory. Quantity is one of the maxims (the others being quality, relation and manner) and refers to the most efficient utterance in the given context. Provided the smiley represents joy, and is as such interpreted by the second CMC-agent, then it certainly outweighs any possible semantic/syntactic construction. <http://www.cs.cmu.edu/~ref/grice-final.pdf>

²⁰ Diana G. Oblinger and James L. Oblinger, eds. *Educating the Net Generation* (Educause, 2005).
<http://www.educause.edu/educatingthenetgen>

winking, smiling or frowning, triggered by the use of the related (textual) emoticons.²¹ Hereby, emoticons do not only serve a purpose as the indicators of mood, but also (in either absence, presence or variety) emphasize once preference *in casu* the software or protocol to use and the usage of online infrastructure.²² One can distinguish by selective or conscious consumption in cyberspace. Since cyberspace has a certain egalitarian effect on all its users (it reduces agents to accountholders and IP-numbers), this distinction is highly appreciated by (semi-)professional users, found in the (early) Net Generation.

Now we're moving towards the bigger importance and relevance of textual imagery in on-line human trafficking. The discourse is moving towards a more visually-oriented environment, propagated by *Web 2.0* for instance, that supports the graphic depiction and multimedial storage of information.²³ It is the living, breathing body of data that has grown out of the static, text-based Internet as it was conceived in the early 80's.²⁴ It also supports improved ways of usability so that (layman) users can design their own virtual datastorage environments and access it in various ways from various locations. The MediaWiki-software illustrates this.²⁵ It allows anyone—basic knowledge of networking provided—to design a conglomerate of data and tie it together through linking, creating an expanding body of hypertext.²⁶ But, on the other hand, there's a lot of non-text-based information in the form of audioblogging and podcasts, miniblogs with pictures uploaded by mobile phone users (*moblog*)²⁷ and Twitter: a bloggingprotocol that is based on short-message-concept inspired by SMS (mobile phone short messaging service).²⁸ This is undeniable proof of the staggering influence of mobility in communication and infrastructuring of data: anything, anywhere, always.

Hypertext is usually relatively short, not only because the attention span of the public is shortening, but also because it's uncomfortable to read from a screen. Usability is a magic word in the Web 2.0-era and long bodies of text are subject to decrease of that. It seems that the total body of text, on the internet as well as in regular bookprinting, is growing exponentially.²⁹ Project Gutenberg³⁰ and Google Books³¹ are noble attempts at digital documentation of that expanding mass of writings, but they will never catch up. And who is going to read all that if there's only shortening of attentionspan and a tendency to reduce relevant information to infographics? Reading texts seems to no longer be a privilege. Literacy has been revised, since the emerging visual culture can no longer be ignored as part of the general discourse. We are past the days of print and stepped into the

²¹ <http://windowlive.ninemsn.com.au/messenger/article/792313/create-a-dynamic-display-picture> : Creating a dynamic display picture is one of the most entertaining ways to personalise the new Windows Live Messenger — all you need is a webcam and few silly faces to pull, and then you're just a few clicks away.

²² There is much more available than just common MSN. Examples of different IM-protocols are ICQ, Jabber, GoogleTalk, AIM, Yahoo and iChat. Software that support these protocols are, for instance: Adium, Pidgin, Gaim, Miranda and Trillian. All have their own emoticon-idiom. The connoisseur knows the pro's and cons and doesn't take his pick on impulse.

²³ <http://www.techpluto.com/web-20-services/>

²⁴ <http://www.cdinucci.com/Darcy2/articles/Print/Printarticle7.html>

²⁵ <http://www.mediawiki.org/wiki/MediaWiki>

²⁶ <http://www.w3.org/WhatIs.html>

²⁷ <http://moblog.net/home/>

²⁸ <http://twitter.com/about#about>

²⁹ Note should be taken of the trendy big and heavy (and expensive) photo- and picturebooks printed that should serve for (artistic) inspiration or distraction.

³⁰ http://www.gutenberg.org/wiki/Main_Page

³¹ <http://books.google.com/books>

virtual world of photo (Flickr)³², video (YouTube)³³ and information esthetics³⁴. Nowadays, visual literacy is highly relevant.

3. Visual Literacy³⁵ and Emoticons

Reading images is of increasing importance. Imagery and pictorial representations are encountered regularly in our daily conduct. Consider traffic signs, for instance. They add to the legibility of our surroundings, when there's a lack of time and space to express more elaborate necessities. The same goes for emoticons: they express a relevant emotional layer that lacks in CMC. Without these, im-convo's would be verbose pleadings, and that's not what they are suitable for. Communication is moving beyond text, and emoticons are moving beyond the text-based images they once were. Although it still takes the old-style textual command, the eventual representation of it depicts a (yellow) smiling face with eyes and a mouth and occasionally even teeth.³⁶ The variety of emoticons is very broad and is being expanded every day by custom-made emoticons that do not even depict faces anymore: there's quite common emoticons depicting sheep, cake and an X-Box game console incorporated in the *MSN Messenger*-software. Reading these emoticons is relatively easy, although some—like the sheep—have a quite ambiguous meaning that's hard to fathom in quotidian CMC. Messenger also offers add-on software consisting of more and more elaborate emoticons, some even dynamic (they move or make a sound), big and shiny—conform the Web 2.0 popular graphic consensus.³⁷

These visual augmentations are part of a newer way of reading: the rise of visual literacy, also responsible for the decline of textual literacy—spelling and grammar—in CMC. Although the textual messages are part of the written discourse, the rules applied seem to be taken from the spoken discourse, with its own spoken laws, thereby allowing details of pronunciation and emphasis to seep through into CMC.³⁸ CMC is thus highly influenced by spoken word and leans on phonetics. Typed text in im-convo's resembles spoken word, and these convo's are not considered to be textual exchange of information. The volatile nature of CMC makes it highly sensitive to spontaneity and improvisation (the term *instant* messaging already suggesting that), and thus it resembles casual physical conversations more than the textual conduct practiced through the composition of written narratives. Added to that, transcripts are both in style and substance unsuitable to read on any other occasion than the spontaneous exchange of moods or trivia. Serious debating should take place in physical environments. The importance of bodylanguage and eye contact is acknowledged by the corporate world, as is being practiced in job interviews.

³² <http://www.flickr.com>

³³ <http://www.youtube.com>

³⁴ <http://infosthetics.com> ; information esthetics concerns itself with reduction of obsolete visual information (chartjunk) and improvement of readability of infographics.

³⁵ A term coined in the late 1960's by Kodak Eastman's John Debes. This initiated the International Visual Literacy Association (<http://www.ivla.org>).

³⁶ Again, dependent on the software/protocol used. Older Net Generation members even tend to use the inverted command—(:— to prevent the automated smileyface image to appear. An act of romantic revolt and nostalgia, in a sense, against the overvisualization of the textual discourse.

³⁷ See <http://www.addemoticons.com/> for an example of the level of visual augmentation that can be exercised in CMC.

³⁸ <http://www.sciencedaily.com/releases/2008/05/080501154219.htm> ; Paradoxically enough, the practice of this 'IM-slang' demands extra effort, whereas the popular use of emoticons should be explained by the practical ease. This needs extra attention in follow-up research.

Therefore, it's not reasonable to hold a sense of fear towards the use of emoticons in (semi-)professional conduct as Leigh Buchanan does.

Virtual genetics

The smiley takes on the role as a unit of communication, or *meme*. This term was coined by Richard Dawkins in his book *The Selfish Gene* (1976). He explains how (cultural) knowledge is transferred in units, and he calls one of these abstract, hypothetical units a *meme*. The meaning of a meme is contingent, connected to a larger body of cultural knowledge. The modern web-culture holds a very strict definition of meme: an initiative known as *Know your meme*³⁹ explains what this is more or less about. The internet is a very quick and effective way of communicating, and therefore appealing imagery travels at the virtual speed of light, racing through the fiberglasscables on the bottom of the ocean towards other IP's to communicate (mostly) jokes. An example of this is the *lolcat*-phenomenon: someone found it funny to add badly spelled statements to photo's of cats in funny positions, turning the whole into a visual gag.⁴⁰ It is unclear where this tradition originated, but the lolcats are known throughout the internetpopulation. One can even participate in the hype by building ones own lolcats.⁴¹

Memes are like genes, composing not your physical appearance, but your cultural structure and assumptions. The web-culture has these memes in very tangible shapes, since the web itself is as abstract as it can be, but it bears visuals to communicate with its operator. Much like CMC is founded on visuals where spoken (transcribed) or written word doesn't suffice, or isn't effective enough. The emoticon is a word in itself, comparable to Chinese characters. An semantical image, a crude abstraction of empirical data, representing an idea, a concept. This makes the emoticon a suitable carrier of meaning. Meaning that can, in cooperation with other meanings, exceed alphabetic images we know as letters. What are they more than placeholders for sounds that compose words that represent meanings, whereas visual concepts are much closer related to their actual meaning? I predict the emoticulture to evolve in a similar fashion Asian characterwritings has, and that's language with amazing depth.

³⁹ <http://knowyourmeme.com/>

⁴⁰ <http://icanhascheezburger.com/>

⁴¹ <http://cheezburger.com/lolbuilder.aspx?tiid=82550&tg=1#step2>

4. Conclusion

The combination of punctuation marks demanded for the portrayal of the smiley has developed into a short, illegible 'word' that signifies a visual meaning, dependent on the context of the message. Where professor Fahlman intended the :-) to be a marker of pun, wit or sarcasm, the modern meaning has soaked into CMC; the smile became a face and the face became an abstract character as a surrogate for emotive expression.⁴² CMC is hardly conceivable without the use of emoticons, as visual tags, transgressing the dichotomy between text and image, that illustrate the emotional backdrop and thus try and make up for the cues given in daily physical conduct. But the use of emoticons will never be able to fully mimic or replace physical conduct, because of their intent. One could easily mislead the other agent in CMC by using smiling faces, but that's hardly as reliable as a spontaneous smile or chuckling. On a more subtle basis, the total lack of nuances in bodylanguage or eye contact impedes the agents to successfully 'read'—or even estimate—the other's mental state. If we were to be dependent on CMC, communication would seriously be in deficit and understanding would only be possible through dry and soulless textual conduct, preventing intimate encounters and the matching of subtleties that are part of the non-spoken discourse.

The smiley is only a primer for the visual age we are in and is in development as we speak. The world is becoming more and more dependent on easily accessible information, preferably in visual form. Researchers dedicate themselves to extensive study of these tendencies and exponentially multiply the amount of written text available in libraries and virtual spaces, creating more and more material for following researchers and their further research into the world of visual literacy. I mean to say that the total body of knowledge is, though repeating itself largely, becoming too large to maintain an overview of. Visual communication will be the next level: it's quick, simple and effective. It's yet hard to imagine, but at some point in the future, we will be dependant on visuals instead of written text (for as far as that isn't visual). Consider barcodes: complex images that harbour large quantities of information encrypted in compositions of lines or squares. The way the computer reads the barcode for us is much like we read traffic signs and emoticons: they imply a lot more than they seem at first glance. The one thing necessary to correctly interpret these codes is basic knowledge (combined with tacit knowledge), and we are inevitably steering towards a society in which images will overtake written text. Not only in formal environments, but also in sciences: it is going on right now in information technology and social sciences, where diagrams and schematics are abundant. Companies dedicate themselves to legibility of charts. It will be the new standard. One could argue the efficiency of emoticons as adequate transferrers of vital information, but the emoticon is only signalling the bigger picture, the tendency towards the domination visuals and increasingly essential visual literacy.

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⁴² The character is even gaining a personality, while the image of the yellow-faced smiley has invoked new figurative depictions, including limbs. <http://us.fotolia.com/id/1486772>

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