Tamás Fekete & Ádám Porkoláb Skeuomorphism as a possible novel method of word formation: On the nature of lexical skeuomorphs

Jóska & Sanyi, please accept our humble contribution, which is partly based on the knowledge we gained from you.

Abstract

In this paper, we investigate the phenomenon of skeuomorphism in language. The word and the phenomenon itself originates in design and to our knowledge only very few scholarly articles have been written on the subject Veszelszki (2017: 104) defines it as "meaning extension". In the Hungarian literature, this area is virtually unknown. Our aim is to point out that skeuomorphism could be construed as a method of word-formation. In our contribution, we present the semiotic and historical linguistic aspects of skeuomorphism and cite lexical examples to support our hypothesis.

Keywords: skeuomorphism, word-formation, language of computing, analogy, netlinguistics

1 Introduction

Bloomfield tells us that "[t]he signals can be analyzed, but not the things signaled about" (Bloomfield 1933: 162). But as we have learned from the two scholars celebrated in this volume, every axiom should be questioned, thus as young researchers, we would like to contradict Bloomfield's statement cited above.

Skeuomorphism, the central notion of our paper, is used very infrequently both in English and in Hungarian, apart from the field of design and architecture, thus everyday speakers rarely encounter it.

According to the definition of the *Oxford English Dictionary*¹ the word *skeuomorph* first entered the language in the late 19^{th} century. The word itself is a Neoclassical compound, created via the combination of Greek *skeuos* 'container, implement' and *morphē* 'form'.

Romano (2016) traces the first use of the word back to H. Colley March's *Transactions of the Lancashire and Cheshire Antiquarian Society*, which was published in 1889. March's definition concentrated on those characteristic features of artifacts that have been rendered useless and obsolete by technological development but are continued to be used on newly

¹ https://en.oxforddictionaries.com/definition/skeuomorph (accessed: July 7, 2018.)

made objects solely for the purposes of ornamentation (Romano 2016: 3). In other words, skeuomorphs "perform the cultural work of nostalgia" (Jones 2017: 4).

The Oxford English Dictionary gives the following primary definition for skeuomorph: "[a]n object or feature which imitates the design of a similar artefact made from another material", while the word's second definition in the dictionary is related specifically to computing: "[a]n element of a graphical user interface which mimics a physical object". As it can be seen, the linguistic sense of skeuomorphism is not included in the OED. However, we believe that the notion of purposeful archaism is not only valid for design and architecture, but it can also be made good use of in the field of linguistics. Therefore, we propose the linguistic use of the word's *skeuomorph* and *skeuomorphism*, as explained through and illustrated by the examples further below.

Apart from design, these two words sporadically crop up in other fields as well, further refining and enriching their meaning. From the perspective of industrial design, Blitz (2015: 665) considers an artifact to be skeuomorphic if it is the reproduction of a given object in a different material or with a different technique. The notion is used with similar meanings in archeology as well, for instance, Bronze Age plankboats exerted significant structural and design influence on Bronze Age logboats (Kastholm 2015). Basalla's work (1988: 107) on technological development emphasizes the seemingly purposeless nature of skeuomorphism, as it is seen to be "an element of design or structure that serves little or no purpose in the artifact fashioned from the new material but was essential to the object made from the original material".

The phenomenon of skeuomorphism is much more prevalent in modern industrial design, as purely aesthetic non-functionality gives way to deliberate design choices. Kreps et al (2016: 62) argue that in the case of elderly patients suffering from neurocognitive illnesses, a skeuomorphic approach to design can be fruitful, given that the long-term memory of such patients typically remains intact. Access to technology for patients suffering from dementia can be significantly improved if the icons of the graphical user interface (GUI) are skeuomorphic (ibid.).

In her thesis, Campbell-Smith (2014) argues that realistic or skeuomorphic user interfaces of online forms can prove to be helpful for those who do not speak English (Campbell-Smith 2014: 8).

Perhaps influenced by such findings, Apple, one of the largest technological companies of the world, also utilizes elements of skeuomorphic design in the graphical user interfaces of their well-known devices (Payne 2013). Payne points out that skeuomorphic and its related tend of two-dimensional, so-called "flat" design has been prevalent in Apple products since the introduction of the iOS7 operating system (ibid.). According to Payne (2013), this cannot be construed as functionless decoration, as Apple's design hints at conscious metaphorical usage.

Li et al (2014) cite further distinguishing features of skeuomorphic and flat design. Skeuomorphic elements are characterized by the need to produce a mimetic copy of a real-world object or some of its properties, while flat design is marked by extensive simplification by doing away with shadows, gradients and perspective (Li et al 2014: 1659).²

² Due to topical and length constraints, unfortunately, we cannot go into greater details concerning various aspects of industrial design. For a discussion of skeuomorphism in the graphical user interfaces of operating systems and programs see Li et al. (2014) and Roberts (2015).

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It is important to note that this approach, which is valid for industrial design and archeology, is not fully adequate if used in a linguistic sense. The most important difference is that elements of language cannot be transferred into some other medium³. The reason behind this is the abstract nature of linguistic structure, which cannot be copied onto new materials or serve as a physical basis of derivation. Furthermore, as opposed to design, we cannot talk about (purposefully) ornamental features in language, at best we can only talk about elements which are semantically or functionally empty in the present-day form of the given language. On the other hand, in our case, a meaning that used to be semantically transparent in an earlier state of the language becomes abstracted in a later stage of historical development, thus the meaning (i.e. the usage of the linguistic sign) changes. We chose to label this skeuomorphism because, in a lexical sense, a motivated change of meaning takes place, similarly to the motivation behind physical skeuomorphism, which results in the establishment of an associative and identifiable link between the original and the newly emerged meaning. The linguistic phenomenon at hand can be seen, among others, as an important and almost unknown trend in netlinguistics, because with the ever increasing pace of development in computing we can expect new skeuomorphic words and expressions to emerge in the future.

To illustrate the process, we would like to cite the example that inspired us to write this paper. Ever since Microsoft Word for Windows 2.0 was released in 1991, which was one of the earliest versions of the software to feature a graphic user interface, the icon for saving a file has been a floppy disk⁴. At the time when the first version of Word was released in 1983 (Allan 2001, Chapter 12, Pingdom 2009, Tsang 2000), and for at least a decade more afterwards, the primary medium of data storage was the floppy disk (given that hard disk drives were of limited capacity), which at that time was in fact flexible, hence the name "floppy". The gradual development of computing rendered the floppy disk obsolete, and eventually, it was superseded by more modern storage devices. The obsolescence took place relatively quickly, within 10-15 years, but the icon for saving in Word has remained the same up to the latest version (Office 2016). In about three decades, the meaning of this sign became abstracted and detached from its original, motivated semantic content (i.e. saving data to an actual floppy disk), and became, in the Peircean sense, indexical and largely empty⁵ (Peirce 2004: 95), as it is now the symbol for saving data onto any medium, not just floppies.

As we mentioned above, the purpose of skeuomorphic elements is to provide historical continuity and establish associative relations between old and new functions of software, thereby making the software easier to use. The previously discussed save icon is a design element, however, in this paper, we are going to survey lexical elements which emerged on the basis of a similar analogy.

³ Of course, spoken language can be transferred to written or sign language and vice versa, but this way we are only conveying the meaning through a different medium, yet the actual structural units of language (e.g. phonemes, morphemes, etc.) cannot undergo processes seen in the case of design elements.

⁴ It should be noted that the term "icon" is used here to refer to elements of a graphical user interface and not in a semiotic sense (i.e. as part of Peirce's trichotomy).

⁵ There is still no scholarly consensus about the nature of skeuomorphs as linguistic signs. We accept Vickers and Gill's (1994: 106) stance, namely that skeuomorphs can be seen as indexical signs because they indicate the presence of the original sense or form of the word they were based on. They cannot be considered iconic, because there is no one-to-one correspondence between the original and the skeuomorphic word. As we have discussed above, the meaning and function of the skeuomorph is different from those of the original. Still, Roberts (2015: 2) considers skeuomorphism to be symbolic, while Knappett (2002: 109) sees them as iconic in a semiotic sense.

These lexical items do not come about organically, but are the results of linguistic creativity motivated by the purposeful establishment of an associative link with an earlier lexical element or meaning. Thus, we consider such items to be linguistic skeuomorphs. This notion has hitherto not been part of linguistic terminology, as its use is restricted to the realm of design, specifically to the description of a trend whereby earlier forms are purposefully taken over into newer artifacts purely ornamentally.

From a semiotic perspective, a feature of skeuomorphic expressions is that the meaning and denotative reference attached to the signifier changes and becomes more abstract with time. Although skeuomorphs can be encountered in several semantic fields, they seem to occur mostly in the language of computing, because rapid technological progress brings about the rapid obsolescence of lexical items as well. From a historical perspective, however, such forms usually require to be passed down several generations of speakers until the process is complete.

In order to be able to work with the notion of skeuomorphism in a linguistic sense, a definition rooted in semiotics and pertaining to word-formation needs to be given. Since such an approach has yet to gain currency in linguistics, we shall provide our own definition of lexical skeuomorphs. We consider two types of words to be lexical skeuomorphs: (i) words whose signifier was fossilized in a previous state of the language, but their meaning is to at least some degree motivated, because it is based on an earlier meaning of the word but used in a different semantic field, and (ii) words whose form is based on word-forms created by synchronically unproductive processes which used to be productive in an earlier state of the language. The current meaning of such lexical elements is the result of a historical change, and might not be directly related to their original meaning, but an associative link and continuity still exists with one of the earlier meanings. Within the category of lexical skeuomorphs, we call such elements semantic skeuomorphs. On the other hand, we consider those lexical items to be morphological (or structural) skeuomorphs which were newly created by speakers via the utilization of a synchronically unproductive mode of either inflectional or derivational word-formation (e.g. *dive* and its relatively recently emerged past form *dove*).

In our view, lexical skeuomorphism can be manifested in two different types: semantic and morphological skeuomorphism. In the remainder of our paper, we will be concentrating on the former category. Here, instead of copying the structural characteristics of a word, the original meaning of a lexical item is reinterpreted in a new context, in our case in the language of computing.

The category of morphological skeuomorphism comprises, for instance, the newly created analogical "irregular" past and plural forms in American English. Examples for the former is the above-cited *dove* past form of the verb *dive* or the novel past form of the verb *squeeze*, which is *squoze*. An example for the latter category could be the mutated plural of *moose*, which would be *meese*. All three of these words are analogical formations: the past forms are based on the synchronically unproductive process of root vowel alternation (ablaut), while the plural form is based on the similarly unproductive *i*-mutation (umlaut). Both ablaut and umlaut used to be productive processes⁶ and the remnants of their operation are still visible in present-day English (e.g. *drive* ~ *drove*, which very likely served as the basis of *dive* ~ *dove*,

⁶ However, it should be noted that only ablaut can be considered a genuine mode of word-formation, because its main purpose was to create different grades of the same root, thereby expressing different inflectional categories (or it could be used derivationally as well, as in *sing* ~ *song*). Umlaut, on the other hand, is a purely mechanical process of distant regressive assimilation, conditioned by the phonetic environment of the root. Thus, its purpose is not to mark any morphosyntactic categories, as it is only a byproduct.

or *foot* ~ *feet* on which *moose* ~ *meese* was based). In essence, this phenomenon entails the analogical copying of an earlier word-form or the analogical revival of a no longer productive mode of word-formation. This present-day "revival" of ablaut and umlaut is motivated by humor, which ultimately indicates a pragmatic motivation. Given that our data is of a semantic nature, we do not wish to investigate morphological skeuomorphism in greater detail in our paper.

Finally, it would also be worthwhile to investigate the phenomenon of skeuomorphism in the technical vocabulary of new or currently emerging scientific disciplines or occupations. Such an analysis could also be fruitful from a historical aspect, through the investigation of whether or not lexical skeuomorphism is detectable in the vocabulary of trades and occupations that emerged in past centuries (for instance during the Industrial Revolution).

2 A "new" mode of word-formation

In the previous section of this paper, we attempted to provide an adequate definition of skeuomorphism. We placed it within the framework of linguistics and suggested its application for the description of certain phenomena in language, as it is important to contextualize and give function to this notion. On the basis of the data to be investigated below, skeuomorphism could be construed as a new mode of word-formation in the paradigm of linguistics.

We have already discussed several aspects of skeuomorphism above⁷. It is important to note, though, that if we are to take skeuomorphism to be a new mode of word-formation then it would be a productive one, even though it builds on the semantic fields of obsolete or out-dated artifacts, ways of life and activities, sometimes utilizing unproductive modes of word-formation. The present-day meaning of the skeuomorphic word is abstract, semantically only partially transparent, and can become entirely opaque with time (first becoming indexical, then symbolic in meaning).

As we have noted before, we consider those expressions (chiefly found in the semantic field of computing, though not limited to it) to be semantically skeuomorphic that maintain the form and some aspects of meaning of a lexical item that has already been in use in the language. Concerning the meaning, however, it is not just a simple historical change that takes place, but an indexical transformation of meaning, whereby the original function and denotation of the lexical item is maintained. The newly emerged meaning will be relevant only to a specific semantic field, while the other meanings of the word could remain in use in other fields. Thus, semantic skeuomorphism tends to operate in a given semantic field, where the original meaning of the lexical item is (often metaphorically) extended or reimagined.

Concerning the treatment of methods of word-formation, Hungarian grammars and other scholarly works on netlinguistics (e.g. Adamikné Jászó 2007, Keszler & Lengyel 2008, Rácz & Takács 1983, Veszelszki 2017: 92–105) do not describe skeuomorphism or skeuomorphic word-formation. According to Kiefer, Siptár & Bakró-Nagy (2006: 421–422) the three ways of internal vocabulary extension are word-formation proper, compounding and extragrammatical word-formation. Lexical skeuomorphism, if we are indeed to take it to be a new method of word-formation on the basis of our discussion above, can be categorized as extra-

⁷ With the exception of the effectiveness of nostalgia as a marketing device, which we will not analyze in this paper.

grammatical. This category includes splinters, affix fossilization, reduplication, backformation, lexical split, clipping, blending, conversion, acronyms and initialisms (Kiefer et al 2006: 423–424, cf. also Martsa 2007 Chapter 6).

Depending on their frequency, word-formation methods are typically classified as frequent or rare, which could also be paralleled with the productivity of a given method. Istók (2016, 2017, 2018) on the other hand believes that this binary configuration is inadequate in modern linguistics. To remedy this situation, he proposes an intermediate category which enables communication between frequent and infrequent modes and calls it "rarequent"⁸ (Istók 2017: 174–175). This category includes those methods of word-formation which are considered infrequent by traditional grammars but are becoming more frequent and productive nowadays as a result of computer-mediated communication, and we consider skeuomorphism to belong to this group too.

Figure 1 below summarizes the methods of word-formation, indicating the proposed place of skeuomorphism if it is in fact taken to be one of the methods.



Figure 1. A novel categorization of word-formation methods (Based on Istók 2017: 175)

It is also important to investigate to what extent can the skeuomorphic expressions of the language of computing be considered neologisms or "netologisms". It is especially crucial since in the language use of online texts (Porkoláb 2015) two significant driving forces can be identified behind vocabulary expansion: one is the use of neologisms and in the case of written spoken vocabulary digital neologisms (or "netologisms") (K. Witten 2012, K.A. Witten 2014) and the other is the borrowing of English technical vocabulary items.

The *Lexicon of Stylistics* gives the following definition: "Neologisms are those new words, expressions, meanings and grammatical forms which enrich language by reflecting on its ever-changing social and intellectual context"⁹ (Szathmári 2004: 154–155). According to Zsemlyei neologisms are created "on the one hand because our cognition is constantly developing: the new ideas and objects need to be named, and, on the other hand, as a result of the inventiveness of writers and poets striving to rejuvenate language" (Zsemlyei 1996: 24).

We believe that words created through lexical skeuomorphism can fit Szathmári's abovecited definition of neologisms. Furthermore, they also fit into the category of netologisms (Veszelszki 2010, 2017: 67, K. Witten 2012, K.A. Witten 2014) not only because they are

⁸ Istók calls this category "gyakoritka" in the original Hungarian version of his paper, which we rendered as "rarequent" here. The original term is a blend of the Hungarian equivalents of *frequent* (gyakori) and *rare* (ritka), and we followed this logic in the English translation.

⁹ Unless indicated otherwise, every direct quote in this paper that does not come from an originally Englishlanguage source was translated by the authors of the paper.

very recent formations, having been coined only a few decades ago, but also because the internet was instrumental in their propagation.

There are, however, some differences between skeuomorphic expressions and netologisms, because according to the literature, the ultimate goal of netologisms is "to strive for linguistic economy and to speed up writing" (Istók & Szerdi 2016: 70–71). The skeuomorphic expressions we identify in this paper did not come about as a means of reducing the amount of time taken up by typing but in order to easily convey an abstract meaning to users via metaphor or metonymy.

Most of the lexical items we are about to present in the next section belong to the basic vocabulary of computing, and because they were coined with a practical and utilitarian goal in mind, they can be considered conscious coinages (Minya 2011: 16). Concerning their nature, these skeuomorphic elements are neologisms (Minya 2011: 21–22), and concerning their frequency of use, they are widespread (ibid.).

It is important to note that these skeuomorphic lexical elements, given that their signifiers already exist in language, cannot be considered ephemeral (cf. Fábián 2009), but are in fact key terms in the language of computing.

3 The analysis of skeuomorphic expressions

Previous approaches to skeuomorphic lexical elements were mostly from the perspective of cognitive metaphor theory (cf. Kövecses 2005 Chapters 15–16). Coyne points out that metaphor use is a basic and necessary element of scientific discourse, but the metaphors used there are different from the ones in fiction and literature (Coyne 1992, 1995: 64). Scientific metaphors are mostly used for setting up and making predictions (ibid.). Skeuomorphism can be considered to be a subtype of these metaphors, which very often come about as a means to bridge the gap between different technologies and to convey abstract meanings. These expressions provide a way to grasp binary systems, logic, formal languages and hierarchical structures (Coyne 1992, 1995: 65-66).¹⁰

The reasoning of Miklósvölgyi and Nemes Z. (2017) also supports our standpoint. The authors, unbeknownst to them, discuss lexical skeuomorphism when they remark that "the most important IT terms of digital capitalism, for instance, *cloud, stream* or *mining*, borrow their names from meteorological and geological phenomena" (Miklósvölgyi & Nemes Z. 2017). The authors themselves talk about "metaphors" and "hypermetaphors" but skip the actual interpretation of these terms due to reasons of brevity. In Roberts' (2015: 2) view skeuomorphism "has defined in the digital age its own form as the functional design strategy 'Interface Metaphor".

Felluga (2015: 5–6) believes that the main goal of archaic, skeuomorphic language is to help users get acquainted with an unknown medium and to provide some sort of analogy for

¹⁰ Here we will cite just one example for scientific metaphors. The phrase "computer-mediated communication" (CMC) refers to the communicational process that emerges on the internet. We use this term in accordance with Herring et al (cf. Herring & Androutsopoulos 2015: 127), namely that the "computer" element of "computer-mediated communication" is used in a figurative sense , which refers to technological development. It expresses that communication is carried out via some kind of electronic device (be it a mobile phone, a tablet, etc), thus the term itself does not need to be updated regularly to include devices other than computers. It seems likely that in a few decades' time the original meaning of the expression after personal computers become obsolete, will have become obscured, but young researchers will still be able to make sense of it.

them. Felluga (ibid.) also claims that through the spread of digital devices, people can experience and make sense of the world in new ways, and language, being the universal tool of cognition, must keep up with these new phenomena.

Due to reasons of brevity, in this paper, we attempt to briefly analyze and explain the 17 most frequently used skeuomorphic lexical elements of the language of computing.

In our micro-corpus, we collected the 17 most frequent skeuomorphic words based on our own experiences and the examples cited in the scholarly literature, which we will analyze below. For each lexical element, we present its etymological background, the original meaning of the word, the abstracted meaning used in computing and the original semantic field the word belongs to. Unless indicated otherwise our data come from the *Online Etymology Dictionary* (https://www.etymonline.com/) and the *Oxford English Dictionary* (http://www.oed.com/) web pages.

Table 1 contains the results of our analysis.

Lexical item	Etymological origin	Original meaning	Abstracted meaning	Semantic field
bookmark	1840 from <i>book</i> + mark	ribbon or other device placed be- tween the pages of a book	a record of the address of a file or internet page	printing
briefcase	1908 from <i>brief</i> + <i>case</i>	portable folding case for holding papers	a special folder in Mi- crosoft Windows for file transfer (obsolete since Windows 7)	office
carbon copy	1895 from <i>carbon</i> + <i>copy</i>	copy on paper made using carbon paper	figurative sense from 1944, meaning to get an exact replica of a docu- ment or file in computing	printing
cloud	OE clūd	rock, hill	c. 1300 metaphorically used in meteorology this sense was carried over into computing in the 1970's in the current sense from early 2000's	geology
data mining	c. 1300 OF <i>mine</i> first as a noun then as a verb via conversion	pit or tunnel in the ground to extract minerals / dig a pit to extract minerals	discover patterns in large data sets	geology
desktop	1929, from <i>desk</i> + <i>top</i>	upper surface of a table	main GUI of an operating system, used in computing since 1958	furniture
dial (a phone)	early 15 th c. medieval Latin <i>dialis</i> 'daily'/ sundial	round plate over which something rotates	first used for telephones in 1879 (as a verb in 1923), originally the plate containing the numbers from 0-9 and the act of turning the plate, in the modern sense the physical dial doesn't exist, the word means pressing the number keys on a touchscreen to call some- body	architecture

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dogument	15 th a homewood from	lesson written	a file that contains taxt	minting
document	To c. bollowed from	lesson, written	a me that contains text	printing
	French <i>aocument</i> <	evidence		
	Lat documentum			
file	1520's French file	string or wire on	an aggregation of data on	office
		which documents	a storage device identified	
		are strung	by a name	
floppy	1972 as floppy disc	thin and flexible	thin and flexible magnetic	materials
	shortened to <i>floppy</i>	material	storage medium, going	
	by $1974 < flop + y$,		through miniaturization,	
	ultimately c. 1600 'to		the most modern floppy is	
	flap'		no longer flexible and no	
	1		longer used	
folder	1903 from $fold + er$	folding cover for	virtual container of files	office
	5	loose papers	on a computer (1958)	
manuscript	1590's medieval	document or book	mostly a typed, unedited	printing
(Balázs, 2007)	Latin manuscriptum	written by hand.	and virtual version of a	1 0
(, ,	I I I I I I I I I I I I I I I I I I I	often the only copy	book or scientific article	
		in existence		
page	1580's MF page <	a sheet of paper	website, a basic unit of	printing
1.0	Lat. pagina	1 1	hypertext	1 0
recycling bin	recycling:1922 from	recycle: reuse waste	temporary virtual storage	industry
	re + cvcle (verb) >	products in manu-	for deleted files (first used	5
	noun recycle + ing	facturing	in Windows 95)	
	1924	<i>bin</i> : enclosed recep-	······································	
	bin: OE binne	tacle		
streaming	OE stream first as a	to flow continuous-	continuous live transmis-	geography
(often live	noun then via conver-	lv	sion of digital audio and	Scography
(often inve streaming)	sion as a verb	Ty	video without storing it	
trash	late $1/t^{\text{th}}$ c perhaps	thing of little use or	deleted files which are	industry
uasii	ON tros	value waste	stored in the recycling bin	muusuy
	011/1/03	value, waste	and can be restored	
windows	c. 1200 ON vindauga	a hole that allows	a rectangular area on a	architecture
	< vindr + auga	light and air to	computer GUI displaying	
	'wind-eye'	enter an enclosed	the processes of a running	
		space	application	
	1	1 •		I

Table 1. The most frequent skeuomorphic expressions from the semantic field of computing

The words we collected, as mentioned above, came about through lexical skeuomorphism, and as Table 1 shows these words cluster around a few characteristic semantic fields, which include the domains of printing, offices and office work and certain occupations (architecture, mining). This seems logical since information technology mostly affected these areas of life.

It is also important to investigate, as we have already mentioned in connection with the features of lexical skeuomorphism, whether or not there is any correlation or link between the various meanings of the words. Our short answer is yes, there is because the new meanings are very often in a metaphorical or metonymic relationship with the old ones.

From the analysis of our micro-corpus, it emerges that the meaning upon which the specialized sense used in the domain of computing is built is itself already an abstracted meaning of the original word (for instance the noun *cloud* originally meant 'rock or hill'). Those lexical items that form part of the language of computing did not base their meanings on the original senses of the words but built on that semantic content of the word that was in use at the time when the meaning extension came about. This is very well illustrated by the example of *dial*, which went through a series of semantic changes from 'sundial' to telephony.

Our data also illustrates the nature and productivity of lexical skeuomorphism, and hint at a possible pragmatic motivation behind this meaning extension, given that in language use, certain contextual aspects are related to each other and show similarities (e.g. *stream* refers to water flow, while in a computational sense the word refers to data flow).

An important pragmatic feature of lexical skeuomorphism is its motivation (similarly to other methods of word-formation). The meaning change can be considered to be motivated, but this is not a change initiated by the speech community, but by a narrow but influential layer of society (e.g. software developers, major tech companies) that forces the speech community to accept the new meanings. It is crucial to note that we cannot talk about any loss of meanings, though, because the earlier meanings of the given lexical elements remain in use even after the operation of lexical skeuomorphism.

We would like to emphasize that our results are not conclusive and cannot be construed as generalizable. Without the thorough analysis of other semantic fields, we cannot claim with absolute certainty that these patterns of skeuomorphism can be paralleled in other registers and domains of language or that they play as significant a role there as they do in computing.

4 Conclusions and summary

In this paper, we attempted to provide a broad description of lexical skeuomorphism, a relatively newly emerged method of word-formation specific to the language of computing, and to give reasons for the term's use in linguistics. As we have shown, we consider this phenomenon to be both a method of word-formation and of meaning extension, because on the one hand speakers deliberately utilize it to create new word-forms (in the case of morphological skeuomorphism) and to enrich the semantic content of already existing words with new, abstracted and metaphorical meanings (in the case of semantic skeuomorphism).

In our paper, we identified, defined and through linguistic data embedded into framework of linguistics a phenomenon that others have already observed, whereby an already existing word is given a new, extended, abstract meaning. We consider a subtype of this phenomenon to be a method of word-formation, while the meaning extension is considered to be a deliberate and motivated semantic change.

Unfortunately, due to length constraints, we could not analyze every aspect of the phenomenon in great detail. We consider this paper to be an exploratory one, which will hopefully act as a catalyst for further investigations into this area. Future research should cover the semantic analysis of metaphorical and metonymic features of lexical skeuomorphism and should attempt to embed the discussion of this phenomenon into the broader context of linguistics, going beyond the fields of semantics and semiotics, encompassing other levels of linguistic description as well.

Apart from investigations into semantic skeuomorphism, the features of morphological (or structural) skeuomorphism should also be examined, paying special attention to the way in which unproductive processes of word-formation are reused in present-day English, as well as to the patterns that are observable in their use.

Finally, lexical skeuomorphism can be construed as a sporadic analogical change, but for reasons of brevity, we did not wish to include a detailed discussion of analogy in this paper, which could be the subject of a different contribution.

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