Geeks and Gods: ICT's Debt to the Arts

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ABSTRACT
With each new object and phenomena humankind discovers, develops or invents, a new set of words must be coined or adopted to describe them. Words are not neutral, carrying with them associations and connotations based on their previous applications and alliances, and augmented by their shapes, sounds, rhymes and rhythms. Many words which are now embedded in ICT's, retain and continue to be colored by these earlier meanings, some of which are drawn from myths. The method of vocabulary-building utilized by ICT's reflects its openness to new ideas and users.

Keywords: connotation, nomenclature, lexis, coining, portmanteau, neologism, phoneme. alliteration

INTRODUCTION
In *A short history of the Web* (1995), Robert Cailliau describes how he and Tim Berners-Lee attempted to coin a 'catching' name for the system that they and others had been developing. Cailliau is 'determined' that the name should not 'again be taken from Greek mythology' and when Berners-Lee suggests the term *World-Wide Web,* Cailliau admits to liking it 'very much', (with the proviso that it was 'difficult to pronounce in French'). Cailliau's anecdote illustrates many of the influences affecting the coining of names and terms by ICT practitioners.

NAMING CONVENTIONS
O'Grady, Dobrovolsky and Katamba suggest that '….human language must be creative – allowing novelty and innovation in response to new thoughts, experiences, and situations' (1996:1). As young men engaged in a new enterprise, and given the prevalence of Greek gods and goddesses (and their Roman equivalents) in the nomenclature of many existing (and less flexible) scientific disciplines, Cailliau's and Berners-Lee's reluctance to draw on classical Greek mythology is understandable. Cailliau and Berners-Lee also had the advantage, enjoyed by others working in ICT's, of functioning in an enterprise which was relatively unstructured and unconstrained by generations of practice. This is illustrated by comparing the development of ICT's lexis with the lexis of astronomy. For instance, an examination of the nomenclature of our solar system, reveals the Earth to be the only planet not named after either Roman or Greek gods/goddesses. The planet names of Venus, Mars, Mercury, Jupiter and Saturn were assigned by the citizens of ancient Greece and Rome for their perceived likenesses to the deities, the beautiful goddess Venus giving her name to the bright planet, and the god of war Mars, to the red planet and so on (Carter, 2002). Once this convention was established, the naming of celestial bodies discovered later (such as the planets Uranus and Neptune, and the [now] dwarf planet Pluto) was constrained by notions of consistency and enforced by bodies such as the International Astronomical Union (IAU) which continues to regulate the lexis assigned to significant new heavenly objects.

Thus, when James Christy discovered Pluto's moon in 1978 and wanted to name it after his wife Charlene, he was refused permission by the IAU. The closest he was able to come was by choosing *Charon,* the Greek mythological ferryman of the dead, whose name, when given an English pronunciation, is phonemically similar to the first syllable of his wife's name. Charon is also appropriate (in IAU terms) in that Charon served as ferryman to Pluto, the god of the Underworld. (Carter, 2002). Even objects identified and named more recently, such as Sedna - the most distant known object in the solar system (discovered in 2004) (Brown, undated) and Quaoar, a Kuiper Belt object found in 2002 (Trujillo,undated) retain the mythological theme, being named after gods from an Innuit and an indigenous north American culture respectively.

In contrast to astronomy, the absence in ICT's of organizations functioning in a similar way to the IAU has allowed ICT practitioners to immortalise themselves and/or their loved ones. Debian – a linux distribution, is a portmanteau of the names of its creator - Ian Murdock and his then girl friend, (now wife) (Debra). Likewise, awk – a computer pattern /action language, is an acronym of its developers' last names: Aho, Weinberger and Kernighan. (http://en.wikipedia. org/wiki/List_of_computer_term_etymologies) O'Grady et al. point out that some 'systematic constraints' are essential in language creation if meaning is to be maintained, noting that 'If well-established words were constantly being replaced by new creations, the vocabulary of English would be so unstable that communication could be jeopardised' (1996:3). While this is a consideration in a new discipline, as long as neologisms remain relatively small in number, they are no more difficult to assimilate by practitioners than other discipline-specific words – be they classed as meta-language or jargon. The randomness in the terminology of ICT's however, does have the potential to affect the understanding of users expecting consistency and coherence.

Despite Cailliau's and Berners-Lee's antipathy, the lure of the lexis of the Greek myth remains strong in ICT's, especially where the function of the task is reflected semantically in the name, such as in the operating systems of Oracle and Delphi. It was to the prescient Greek Oracle living in a cave in Delphi that the troubled turned for guidance, just as the operating systems are intended to smooth the path ahead. Similarly, a Trojan horse (a malicious program designed to look like legitimate software) effectively carries with it the original mythic notion of an unsuspected and deadly attack. Users must share this cultural knowledge in order to gain this depth of understanding.

There is a further dimension to this Greek mythic nomenclature. In discussing news media, Veronika Koller notes that, 'By favouring particular metaphors in discourse, journalists can reinforce, or even create, particular mental models in their readers' cognition' (2004:3). Ancient Greek and Roman civilizations have long served as metaphors for high learning in both the rational and creative arts in the West, and when lexis from these eras is assigned elsewhere, it carries this metaphorical dimension with it. In disciplines like astronomy, which has a long and venerable history, such metaphorical transference serves to reinforce its status, but in new disciplines, such as the ICT's, such transference has the potential to *build* status.

The comparatively unstructured environments that ICT software and hardware developers work in, gives them greater freedom to coin or adopt a lexis with a humorous or larrikin edge. The founders of Yahoo! took the name from Swift's *Gulliver's Travels* (1969:260) where it referred to a repulsive, barely human creature, and a quick scan of the Web's wikipedia reveals others: Google beginning as 'googol', a tongue-in-cheek boast about the quantity the search engine would be able to search (a googol is 1 followed by 100 zeros); Sosumi (so-sue-me) – a system sound in Apple Computer's System 7 operating system, dryly reflecting the company's long history of litigation with Apple Records, and the web browser Mozilla, being a portmanteau of Mosaic-Killer (it replaced the Mosaic browser) and Godzilla (a cinematic monster). Wikipedia even cites itself as being named for the 'wiki wiki' or fast shuttle buses at Honolulu Airport (http:en.wikipedia. org/org/wiki/List_of_computer_term_etymologies), and the fact that it's one of the few places where information on computer terminology origins is readily accessible, underscores the lack of focus by ICT's on naming conventions. In addition, it suggests a certain playfulness and lack of seriousness both by the coiners of names and their recorders.

A characteristic of many of these newly coined ICT terms is their catchiness, a quality which Cailliau was also keen to see in the nomenclature of the World-Wide Web.

LOVING THE LEXIS

What is catchiness? What makes one word or term more attractive, or lovable than another? Little analysis of the term World-Wide Web is necessary to identify its most salient feature of alliteration. Alliteration, in its simplest form the 'repetition of the same sounds – usually initial consonants of words or of stressed syllables – in any sequence of neighbouring words' (Baldick, 1991:5), is achieved in this term by the identical initial sounds or phonemes (graphically represented by 'w') in all three words, and by the identical final phonemes (represented by 'd') of the first two words. In addition, the phonemes represented by 'd' and 'b' in the final two words, are similar.

While alliteration aids pronunciation, so too does the consistent consonant-vowel order across all three words. Consider the alliterative qualities of 'frosts and fogs', a word combination liable to trick the tongue into saying 'frosts and frogs'. The repetition of the same sounds in words is easier to pronounce than changes in patterns, a preference illustrated by the coining of nonsensical reduplicatives such as easy-peasy and teeny-weeny.

The denotation and connotations of a word or term are also important. Denotations do not remain constant over time or space, 'queer' and 'gay' being contemporary examples of words which have enlarged their meanings to the point where earlier meanings have been largely subsumed. While the denotation of 'World-Wide' has remained constant, 'web' now links strongly (it could be argued *more* strongly with particular generations) to a computational *denotation*, rather than to its earlier meanings. The *connotations* of 'web', at the time of Berners-Lee's adoption of it, were charming and organic (spiders' webs, the webby feet of ducks), and may have contributed to the 'catching(ness)' Cailliau describes. As far as we know, Berners-Lee didn't engage in these analytical processes consciously, and its not possible to say whether he did so unconsciously, though the attractiveness of alliteration suggests it.

SOUNDS AND SEMANTICS

The sound of a word is important in deciding on its 'rightness' for the new phenomenon it seeks to describe. Onomatopoeic words mimic the phenomena they describe closely (chicks *cheep*; dogs *woof)* and non-onomatopoeic words can also carry a sound match which seems 'right'. Widget (an interface component) was a word adopted from the 1924 play, *Beggar on Horseback*, where it describes a mass-produced object (which was never identified) but which represented a 'purely mercantile commodity that has no artistic or spiritual value' [http://en.wikipedia. org/wiki/Widget_(computing)]. The second syllable represented by 'get', echoes the more common word 'gadget', and so carries with it the semantic connotations of that word. It is likely that widget is more generally known now as an ICT term than as the undefined but soulless object in the 1924 play, and the same might be true of portals, although portals carry with them a rich heritage.

THE POWER OF PORTALS

The idea of a gateway or portal to another world is common in myth and fantasy, and far older than the use of the same notion in ICT's. While ICT portals take researchers to other domains of data, the use of portals in myths is more complex. In creation myths, the passing of portals has immense consequences for humankind – as in Adam and Eve's expulsion from their carefree existence in the Garden of Eden (unleashing the world's woes upon their descendants), and in the carrying away of Persephone by Pluto into the Underworld (leaving a legacy of cold and sunless months each year). While in its most general sense a portal is just a gate (from the Latin *porta*) (Skeat, 1983:403), when heroes pass through literal or metaphorical portals in works of myth and fantasy, they enter strange and dangerous landscapes of physical and psychological testing, or as the mythologer Joseph Campbell describes it , the 'fateful region of both treasure and danger' (1993:58). Their journeys are very different to those of researchers who enter portals knowingly in search of information relevant to their purposes,

for heroes are commonly unaware of the imperative that drives them, or of the profound (usually psychological) changes to come.

In *The Hobbit*, (Tolkien:1974) Bilbo's route to psychological growth takes the form of a quest (to win back the dwarves' gold from the dragon Smaug). When Bilbo sets off alone down the tunnel to the fearsome dragon Smaug, and hears the dragon snoring, he stops at first, frozen with fear, but then forces himself on. As the narrator (Tolkien) says: 'Going on from there was the bravest thing he ever did … He fought the real battle in that tunnel alone, before he ever saw the vast danger that lay in wait.' (1974:197). Bilbo's physical journey *down* into the earth, is metaphorically a journey *down* into the unconscious, where he struggles to overcome the limitations of self (legitimate fears for his own safety), and gains the wisdom and mental strength which he later uses to end the disastrous stand-off between the dwarves and Lake men. In Henderson's words: 'the essential function of the heroic myth is the development of the individual's ego-consciousness – his awareness of his own strengths and weaknesses – in a manner that will equip him for the arduous tasks with which life confronts him' (1978:101). While computing portals can't be described as dangerous, they continue the connotations of 'newness' and 'otherness' from their mythic origins, which in turn alert the ICT user to their function.

CONCLUSION

As ICT's continue to evolve, so too does the lexis. Web logs have become blogs, which in turn have coined blogging and blogsters, while using Google has resulted in googling, having googled or having been googled. Rules of engagement or netiquette (a portmanteau - net plus etiquette) have emerged, and perhaps soon even netiquettic googsters will accept Spamsters. Presently the nomenclature of ICT's is dominated by the West, but the emerging powers of India and China are likely to add to the language and cultural mix in the future, either through their official languages or through the portmanteaux of Hinglish and Chinglish.

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