

RHnotation: A Post-9/11 Numeric Alternative

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Abstract

This paper publicises recent work within the field of mathematics to cleanse itself of Al Qaeda/Hussein influence through the elimination of Arabic numerals. A universally efficient, child-friendly and scientifically based alternative is presented.

Introduction

September 11, 2001, marked a tumultuous turning point in many international arenas: politics, economics, society and security; it appears that international mathematics was not immune. As the dust settled on a post-9/11 world, mathematicians, statisticians, algebra teachers and scientists of all stripes began to realize the gravity of their own complacency surrounding the omni-present and looming terrorist threat. The threat that they faced, and which seemed so intertwined within contemporary mathematical life that it had become, in a sense, faceless through its ubiquitous and historical acceptance, was for many so foundational to their knowledge of the subject that the mere thought of its expulsion, vanquishing or obliteration seemed too massive an undertaking to be practical. Practical or not, the devilishly evil and broad threat it represented meant that a perpetuation of the *status quo* would constitute such an evasion of responsibility as to be thought

tantamount to culpability should an attack ever occur. After all, some of those situated closest to the threat were innocent children—ignorant of its scale and capabilities—studying, manipulating and modifying its components; not unlike a baby playing with a ticking time-bomb. It was universally decided, therefore, that this terrorist plot could be only fully removed from modern mathematics through the swift and uncompromising elimination of all Arabic numerals and the potential evil they represent.

Method

In November 2001, a sub-committee of the APSO Council on Mathematical Purity was formed to assess the requirements of a numeric system, and to evaluate those areas where systems of the past we both efficient and lacklustre. By June 2003 the sub-committee's work was completed. It was determined that a new system should be similar to ancient Roman numerals (the idea of which has long held popularity among grade school

Table 1. Reserved and Permissible Glyphs

Glyphs Reserved for Algebra	Permissible Glyphs	Glyphs Reserved for Graphing
a, b, c	$D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W$	x, y, z

students because they could easily recognize the constituent glyphs) but much less complicated (as any objections from students often arose out of the convoluted and archaic rules for Roman numeral representation that so differed from the admitted simplicity of the Arabic system). Accordingly, the sub-committee recommended that the new numbering be based upon familiar glyphs (such as those found in the Roman alphabet) while retaining a simple base-ten system of rules (not too dissimilar to the Arabic).

The recommendation was not without its critics. Members of the APSO Plenary on Algebra and the APSO International Working Group on Consistency in Graphing cautioned that confusion might arise if Roman alphabetic glyphs previously employed within their respective domains (a, b , and c ; and x, y and z) were to be somehow incorporated into the new system. The overseeing APSO Council

on Mathematical Purity took these critiques under advisement, and determined, following a rigorous thirty-four hour session, that indeed glyphs a, b, c, x, y and z should be excluded from future discussion. Furthermore, in accordance with a wise suggestion made by the Honourable Delegate from Slovenia, it was decided that to avoid any confusion, only the use of uppercase and non-accented glyphs was permissible. In November 2003, after the APSO Council on Mathematical Purity secretariat had completed the so-called *Framework of Understanding*, work began on the establishment of the requisite system. It is at this point that I and my team became involved.

Rather conveniently, it was early on discovered that removing the six aforementioned glyphs from those available in the Roman alphabet reduced the total working number of glyphs to a reasonable twenty (when

Table 2. Arabic Numeral and Permissible Glyph Conversion

Arabic Numeral	0	1	2	3	4	5	6	7	8	9
First Position Glyph	D	E	F	G	H	I	J	K	L	M
Second Position Glyph	N	O	P	Q	R	S	T	U	V	W

including the often underemployed glyphs Q and W; see table 1). Furthermore, advancements in digital clock/digital clock radio technology since the late 1960s had finally permitted the legible digital display of “tricky” or “slanty” characters like D, K, M, N, Q, R, T, V and W. This meant that early musings and trepidation by some team members about the practicality of using Roman alphabetic glyphs on digital display calculators were now moot.

In devising the final notation, several possibilities were explored for the use of twenty glyphs within the stipulated base-ten system. One suggestion was to drop the ten most writing-intense glyphs for speed and efficiency; another was to exclusively use H, I, J, K, L, M, N, O, P, and U, as they were the ten permissible glyphs accessible with solely one’s right hand on a standard Qwerty keyboard. For various reasons, too numerous to be mentioned here, it was decided that all twenty glyphs would be used,

alternating between the first and second ten depending upon the number of digits to be displayed (tables 2 and 3). This agreed upon syntax would give the system a certain Roman numeral-type quality, while retaining the simplicity of its Arabic numeral predecessor—thus, it is hoped, it will quickly bring common school children on side; lest we forget, children are our future (Houston, 1985).

Discussion

To begin this discussion, a few examples are in order. The Arabic form 14 would be transcribed as OH; 747 as KRK; 87648, LUJRL; and 2729344, FUFWGRH. As can be seen, this new method is ideal for a number of key reasons. First, it emancipates those who have previously found mathematics awkward because of its heavy reliance on numbers. Hopefully, statements such as “I’m not so good with numbers” and “Math is hard” will be a thing of the past. Second, this method allows for further reduction in the size of large and over-

Table 3. Position-Dependant Glyph Placement Syntax

...	1000000	100000	10000	1000	100	10	1
	D	N	D	N	D	N	D
	E	O	E	O	E	O	E
	F	P	F	P	F	P	F
	G	Q	G	Q	G	Q	G
	H	R	H	R	H	R	H
...	I	S	I	S	I	S	I
	J	T	J	T	J	T	J
	K	U	K	U	K	U	K
	L	V	L	V	L	V	L
	M	W	M	W	M	W	M

crowded laptop, palmtop and blackberry keyboards. Third, the method—named *RHnotation* in honour of APSO founder and director Dr. Ralpholio Hoppertinez—finally enables efficient numeric entry for those who never bothered to learn to touch-type numbers on a typewriter. Fourth, *RHnotation* will advance the currently cumbersome list of memory mnemonics used for telephone, social insurance, and street address numbers, as well as for postal codes and on licence plates. A rather serious result of ubiquitous adoption of *RHnotation* would be the need to rewrite all known dictionaries, thesauri and other so-called word guides, as *literacy* and *numeracy* would become synonyms. We do not foresee, however, this slight impediment as a validation for anything short of complete and universal recognition of *RHnotation*.

At the time of publication, conversion of decimal places into *RHnotation* appears theoretically possible, but as with negative integers, such conversion is beyond our current research and technology. For the time being, the mathematical world will be required to adjust all calculations to accept only the absolute values of all real numbers. On a positive note, funding has been recently secured through a number of supportive governments for the creation of conversion tables for other notations, including Reverse Polish Notation and Musical Notation, among others.

If nothing else, in our tit-for-tat world, swift adoption of *RHnotation* by the United States will relieve the American collective conscience and their

international image of backwardness for having yet to embrace the metric system. Furthermore, a sense of relief will come when as a global community we can be at ease knowing that the memory of 9/11 will be softer, and slightly less dangerously offensive, as M/OE.

References

Houston, W. (1985). "The Greatest Love of All." On *Whitney Houston*. New York, NY: ARISTA Records.