Term: Information

Quote: A symbol, in its reference to its object, has a triple reference:–

1st, Its direct reference to its object, or the real things which it represents;

2nd, Its reference to its ground through its object, or the common characters of those objects;

3rd, Its reference to its interpretant through its object, or all the facts known about its object.

What are thus referred to, so far as they are known, are:
1st, The informed *breadth* of the symbol;

2nd, The informed *depth* of the symbol;

3rd, The sum of synthetical propositions in which the symbol is subject or predicate, or the *information* concerning the symbol.

By breadth and depth, without an adjective, I shall hereafter mean the informed breadth and depth.

It is plain that the breadth and depth of a symbol, so far as they are *not* essential, measure the *information* concerning it, that is, the synthetical propositions of which it is subject or predicate. This follows directly from the definitions of breadth, depth, and information. Hence it follows:–

1st, That, as long as the information remains constant, the greater the breadth, the less the depth;

2nd, That every increase of information is accompanied by an increase in depth or breadth, independent of the other quantity;

3rd, That, when there is no information, there is either no depth or no breadth, and conversely.

These are the true and obvious relations of breadth and depth. They will be naturally suggested if we term the information the *area*, and write–

Breadth X Depth = Area.

Source: Peirce, C. S. (1867). Upon Logical Comprehension and Extension. *Proceedings of the American Academy of Arts and Sciences*, 7, 416-432.

References: W 2:82-83

Date of   1867

Quote:

URL: http://www.commens.org/dictionary/entry/quote-upon-logical-comprehension-a
              nd-extension