

9-12-2008

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Hof, van 't, Christian, "Logo Code: a Common Language Based on 2D Barcodes" (2008). *All Sprouts Content*. 209.
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Logo Code: a Common Language Based on 2D Barcodes

Christian Hof, van 't
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Abstract

Logo Code is a logographic writing system based on 2D bar-coding. Its signs represent two meanings: a logo to be read by people and a numeral code for the computer. Some existing pictograms and ideograms can be used, while many new ones can be created. Digital readers, such as the camera on the mobile phone, can be used to read, translate and learn unfamiliar logos. Examples of usage are: direction signs, product information, art and games. But above all, it's a linguistic thought experiment.

Keywords: 2D Barcodes, language, logo, public spaces, mobile phone

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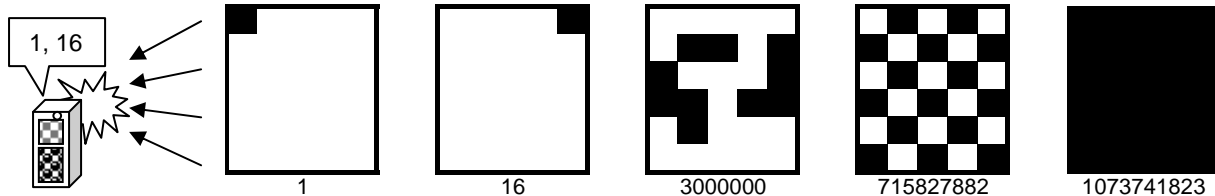
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Reference: Hof, C. van 't (2008). "Logo Code: a Common Language Based on 2D Barcodes," . *Sprouts: Working Papers on Information Systems*, 8(4).
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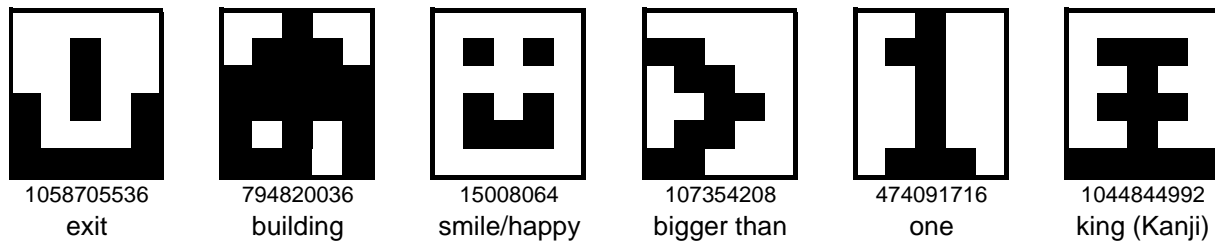
Logo Code is a logographic writing system based on 2D bar-coding. Its signs represent two meanings: a logo to be read by people and a numeral code for the computer. Some existing pictograms and ideograms can be used, while many new ones can be created. Digital readers, such as the camera on the mobile phone, can be used to read, translate and learn unfamiliar logos. Examples of usage are: direction signs, product information, art and games. But above all, it's a linguistic thought experiment.

How computers read 2D Barcodes

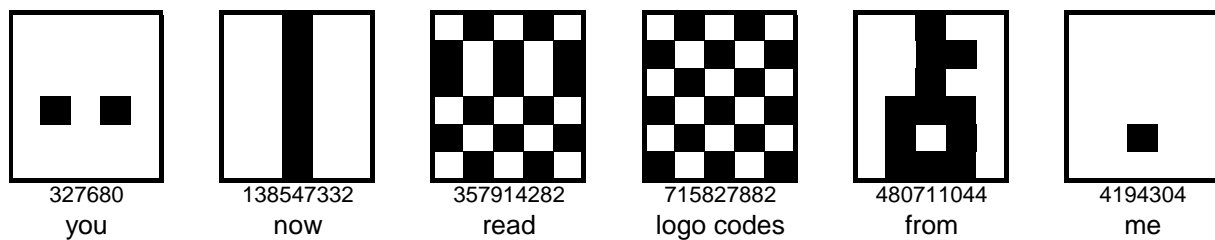


Optical readers, such as a webcam, or the camera on your mobile phone can read these images as binary code. The first square is a binary 1 (1), the second 10 (2) the third 100 (4), etc. The unique number refers to information in a database: 10010011 means X. Here, the rectangle serves as a marker to identify the position and size of the code and its bits. Other markers can be used too. Practice shows communication even works when lines are fuzzy or the reading surface is tilted.

Coding existing logos



Developing new logos



With a 5x6 matrix, logos can be created which are still readable and writable for humans, while it provides over a billion possible codes. In most languages people need only about several thousand words, while many nouns, verbs and adjectives are used in most languages. Next, grammatical logos (e.g. plural, tense) and phonetic logos for names, need to be generated. This adds up to about 10.000 logos. Within a matrix of one billion possibilities, there is enough room to create recognisable shapes.

Use

Logo codes can be used where flows of people of different languages need information: international airports, sports events or tourist areas. The codes could also serve translation of product information or documents. Logos can also be constructed in all size and materials, for artists, architects and game developers to add meaning to public places. Logos can be read by blind people like Braille. Building a keyboard for logo codes is easy: 30 buttons in a 5x6 matrix along with some function buttons. Still above all, logo code is a thought experiment on how people and machines deal with languages.

Christian van't Hof, 8 August 2008
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