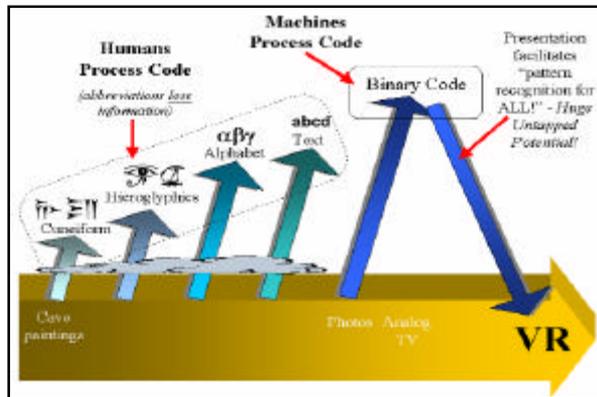


# the Naledi3d Factory

## An evaluation of VR as an aid to learning in Africa (2003)

Report: *An Evaluation of Virtual Reality in Africa, an Educational Perspective. UNESCO Report CI-2004/WS/1, Paris 2004*

**Purpose:** UNESCO commissioned the Naledi3d Factory to look at the advantages and disadvantages of applying multimedia and interactive 3D simulation tools to the learning environment. The study looked at how the human brain learns; the practices and approaches to the use of multimedia and interactive 3D tools as learning aids as well as an on-site evaluation



**Partner:**  
**UNESCO**



### In a Nutshell:

"...there is only one ICT (Information and Communication Technology) application that is able to create environments combining all required aspects and that application is a fully interactive, simulated, virtual 3D environment, i.e. **Virtual Reality**" - Dr. R.S. Day.

### The human brain is wired for visual content:

The human brain is wired for visual inputs. We dream in pictures, the brain learns visually and it follows that visual content can be crucial to learning. VR offers a way of providing content that is rich in both content as well as context. It utilises both sight and sound, not in symbols to be decoded (as with text), but by displaying the information in a form natural to the brain - which can have a significant impact on improved learning. PC-based VR can make a huge contribution to overcoming the two most common barriers to learning in Africa - literacy and language. **Indeed, we now believe that VR can be of greater significance to learning in the developing world than the developed!**



### Teachers and Schoolchildren agree:

Over 300 learners and 30 educators were surveyed in Uganda and South Africa. Opinions were obtained both before and after being exposed to eight VR models, including our sand filter and rural hygiene simulations shown above.

Educators and learners confirmed the more theoretical findings of our specialist researchers.

- 100% of the educators who responded believed VR was a good teaching medium.
- Students benefited from the visual and interactive power of the technology and gave a very positive overall rating of VR as a learning tool.
- 80% of students polled were very confident or confident in respect of the subjects used in the surveys; after going through the VR simulations.

We at the Naledi3d Factory see this ground-breaking work leading to a radical paradigm shift in developing world education and are taking this forward through a number of local and global partnerships and initiatives.

