

The Digital Doorway

Computer literacy through unassisted learning

What is the Digital Doorway?

The Digital Doorway (DD) is a joint initiative between the Departments of Science and Technology (DST), Rural Development and Land Reform (DRDLR) and the CSIR Meraka Institute. The vision of the DD initiative is to make a fundamental difference to computer literacy and associated skills in Africa. Through improved computer literacy, all South Africans can be included in the information society.

Underpinning the project is the idea of people's inherent cognitive ability to teach themselves computer skills without help. For this to happen, computers must be easily accessible to potential learners in an environment in which they can experiment.

Apart from the ability to read text, literacy also involves image and screen literacy, particularly information navigation. Through access to information and communications technologies, a new way of learning by 'discovery' rather than by 'lecture' becomes possible.

Robust DD computer systems are deployed in communities in an environment in which members can learn through experimentation. The system has been developed for South African conditions, as well as usage patterns and user profile.

Much progress has been made in setting in place the elements of a sustainable network of DDs countrywide, even in the remotest areas.

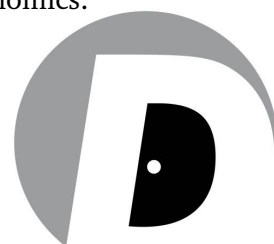


Developing and deploying the Digital Doorway

Since the introduction of the initial, single-terminal Windows-based configuration, the DD has undergone numerous improvements and refinements, both in terms of hardware, and software. The current open source-based configuration is based on Ubuntu Linux.

Robust and vandal-proof, the current DD's modular design allows easy reconfiguration and assembly, and follows international best practice in terms of ergonomics.

The number of installations has increased from one, in 2002, to over 240, in 2013.



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Enriching your mind

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Hardware Iterations

The DD can be adapted to suit the particular environment where it will be deployed.

The figure below illustrates some of the key developments in terms of hardware iterations to date



4-terminal

3-terminal



Desktop DD



Solar-powered Container DD



DD for disabled users



New Solar Container

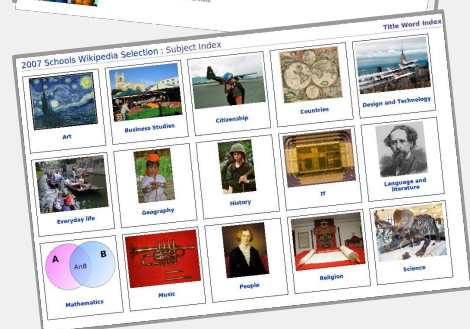
Additional features include information transfer between cell phones and the DD via Bluetooth, and the ability for the DD to function as a wireless hotspot serving local content.



Content

Each DD serves as both a tool for computer literacy development and a source of information on a range of subjects. For lasting benefit in a community, the DD must be fully operational and available with fresh, locally relevant, challenging and informative content.

The content includes the Open-Office suite, educational games and programs, an introduction to computer terminology, scientific software, 10 000 books from project Gutenberg, a snapshot of the Wikipedia, Mindset curriculum-based educational content, inter-active science simulations and numerous other applications for children and adults. In the new solar-powered container DDs, the content is also available via the local wireless hotspot, enabling wifi-enabled devices to access the information through a browser.

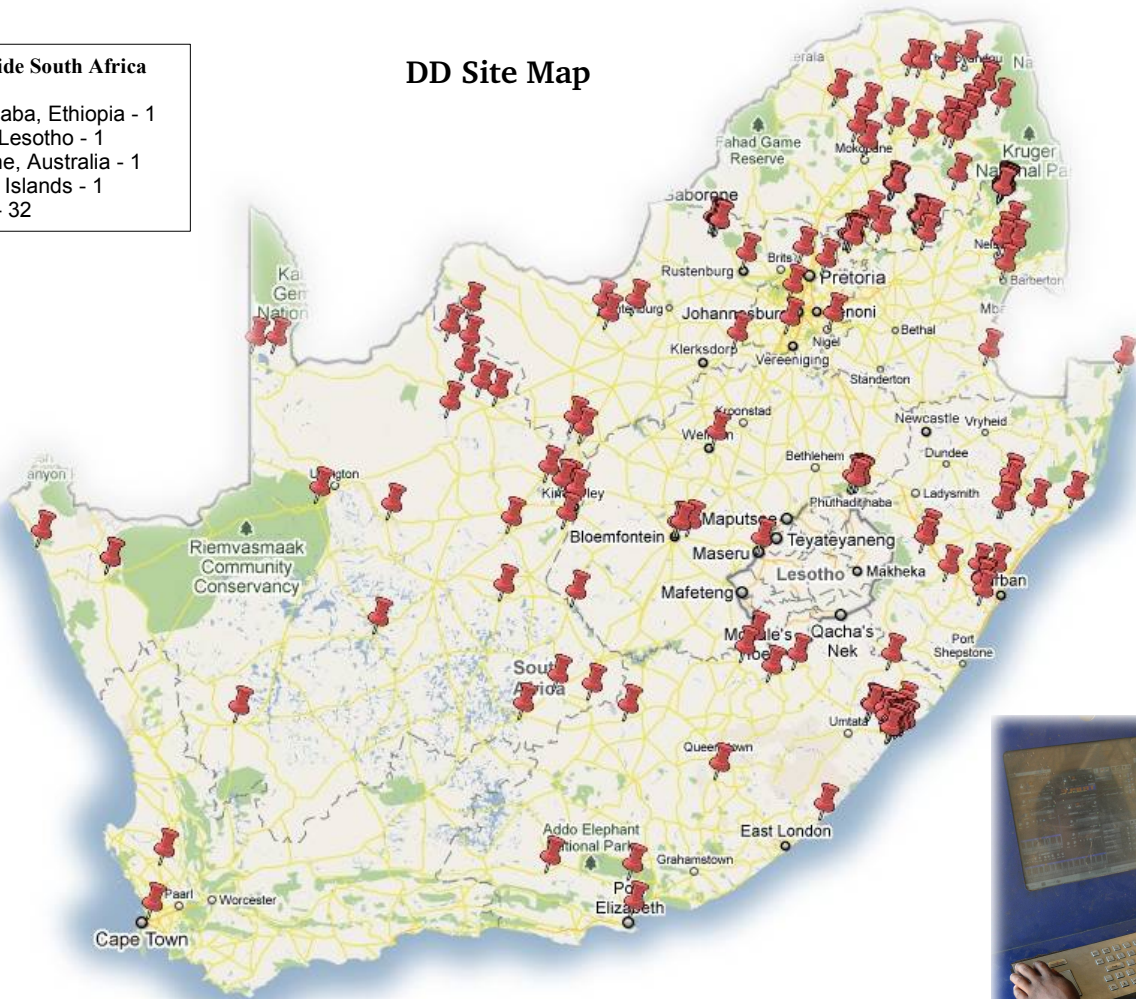


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DDs outside South Africa

- Addis Ababa, Ethiopia - 1
- Maseru, Lesotho - 1
- Melbourne, Australia - 1
- Solomon Islands - 1
- Uganda - 32

DD Site Map



Some DD Facts

- 240+ systems are currently deployed in South Africa.
- DDs are located in all 9 provinces, often in remote areas.
- <4% have experienced incidents of vandalism.
- 70% of users are under the age of 21.
- Entertainment and multimedia content is the most popular, followed by reference material, in particular the encyclopaedia.
- Each DD has the potential of reaching hundreds of users.
- The solar container DD operates completely independently of the need for grid power

Plans for the future

The DD provides a good opportunity for responsible corporate social investment and the uplifting of low-income communities. To date, the CSIR has partnered with a number of academic institutions and corporates, for sponsorship and further research and development. By extending this cooperation, the CSIR aims to maximise the impact of the DD through increased deployment and expansion of the content.

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