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'ICT for or against development? An introduction to the ongoing case of Web 3.0'

Does the development sector's preferred way of working help or hinder it in its efforts to bring about positive change? This article reflects on this question in relation to Information and Communication Technology (ICT), particularly how ICT has been, is being, and could be applied by the sector to help it achieve its goals on the ground.

Tight deadlines, information overload, complex lines of communication, bureaucracy and political constraints. These are just some of the many obstacles encountered by those working in development today. It is therefore good to step back for a moment to reflect on how we work and whether we work in a developmental way.

Here we look not at the efforts to promote ICT as a tool for development in its own right but at how development organizations use new technologies to manage their own operations and communications with others. We argue that this has produced a massive investment which has acted against progress towards achieving development goals. Typically, development organisations 'borrow' and apply ready-made, but often unsuitable, ICT solutions from other sectors. A different, more innovative, approach is therefore needed, particularly with the advent of Web 3.0 tools; namely, envisioning a valuable development activity and then shaping the technology in order to enable it.

The intelligent web

So what is Web 3.0? First and foremost, it promises to radically alter the way in which all of us engage with the web. Intermittently referred to as 'the intelligent web' or 'the semantic web', it reaches a level where services do not simply retrieve information based on keywords, but try to 'understand' what users want and return the most relevant content. In this way, Web 3.0 allows data to be manipulated, presented and linked in new ways (as opposed to simply linking web pages). It has the capacity to directly link social interactions and conversations on the internet to the documents and online data they are referring to. In short, it will connect people to online resources in a faster, more effective way than ever before. Yet the true scope of its potential is not yet fully understood: this is just the tip of the iceberg.

The latest generation of web browsers (increasingly running on mobile phones) have in-built location awareness - able to know where users are (with the users' permission). ID technologies and social networking sites combine to allow search engines and other services make use of information about users to provide more personalised (and in theory, more relevant) results. And instead of just searching documents, a series of new standards, from micro-formats embedding context into web pages, to linked data, allow online applications to draw on a far wider range of content in answering

users' questions or providing services. This paper takes an in-depth look at the potential impacts of 'open data' and 'linked data' on development. Several case studies are used to show how the sector is already exploring these tools. Other technology trends are also identified: ones that promise to play a role in constructing the future data, information and knowledge eco-system in development. However, the technology is primarily being driven by other sectors and its uncritical adoption within development , as with any new technolgy, contains serious risks as well as opportunities.

The authors recommend that development agencies seek out ways of working together in order to identify the key developmental challenges which foreseeable technologies might help address. To do this effectively, they should set up collaborative programmes that would enable the necessary technological developments to take place. This is based on the premise that development will only work if it can look beyond the present, identify risks and opportunities that lie ahead, and take steps to shape a more development-friendly future.

Finally, policy decisions play a key role because the impact of ICT applications on development work will depend on them. They will dictate what is introduced, how it is applied, and to what end. This paper therefore explores these policy issues, based upon a wide review of current projects, activities and literature, and a workshop of IKM stakeholders. It concludes with a number of policy recommendations to guide the future exploration of, and investment in, Web 3.0 technologies in the development sector. Linked to this, there needs to be:

● A collaborative effort with common standards and, ideally common but open approaches to issues of language, ontologies, authorities

● Awareness that actions of individual organisations affect the whole

● Different types of information, not just big data. There should also be effective ways to compare and connect quantitative data found in linked statistical datasets with qualitative data and information

● Visualisation needs to be explored with critical awareness of culture and how images are interpreted.

Above all, the sector needs to ensure that either Web 3.0 can be adapted to support local information environments or that at least information work at this level gets equal investment and is not left behind.