More research is needed into the impact of new technology on African media for the effective teaching of journalism across the continent, said media academics at a recent Unesco-sponsored conference in the UK.

There is a significant amount of Western-centric research into how new technology has democratised the media and their role in political processes and activism, but less on their day-to-day impact on the newsroom and journalists, said Hayes Mabweazara, lecturer in journalism at the University of Falmouth.

Speaking at the African Journalism Exchange Project conference at the University of Bedfordshire in April, Mabweazara said African journalism studies need to be "empirically rooted in African experience and to acknowledge that journalists do their jobs differently in different circumstances."

"We need to develop closer engagement with how journalists have forged new ways of practising journalism," he told delegates. "African media research must be located in African realities not western fantasies."

He highlighted the need to examine local socio-political, economic and institutional factors – that differ significantly from those in the West – which shape media practices in Africa.

"Journalists are poorly paid and operate in multicultural countries at various stages of constituting themselves as nations in a globalising world," Mabweazara said.

"Technology by itself is not a relevant explanatory variable of practices in African newrooms."

Indeed, access to new technology varies widely across the continent, with figures on mobile phone penetration, broadband availability and access to computers showing huge differences across Africa.

While mobile phones have been lauded by some in the media for revolutionising access to information across Africa, the reality is somewhat different. Access to mobile phones is over 80% in some countries, such as Egypt, South Africa, Tunisia and Ivory Coast, but in others it is much lower. In Ethiopia, for example, only 10% of the population has access to a mobile phone, although this is growing at an impressive 68% a year. Access doesn’t necessarily mean ownership – many people use someone else’s mobile phone to get news, make calls or even pay bills.

David Brake, senior lecturer in journalism at the University of Bedfordshire said there is huge variation in access to technology not just between countries but within countries. This has significant implications for journalists, which educators should be aware of.

"Only three percent of people in rural areas in the poorest countries have mobile phone access, in middle income countries it’s 13%. So if you are an African journalist targeting mobile phone users you are targeting urban users."

Many newsrooms are still some way from embracing the role new technology can play in their newsgathering and output. While many journalists use mobile phones exclusively for their work, they are often at a financial disadvantage for doing so, said Brake.

"Cost is a significant issue and journalists may have to pick up the tab for their mobile phone use," he said.

Citing Guy Berger’s 2005 book Powering African Newsrooms: Theorising How Southern African Journalists Make Use of ICT’s for Newsgathering in Doing Digital Journalism, Brake said another factor to consider is a lack of equipment in many newsrooms, including computers.

Where there are computers they often don’t work, and many more are not connected to the internet, wrote Berger. Even with laptops, journalists often have to queue to use them. "Where there is access, such as in one Malawian newsroom, it is only permitted for 30 minutes per journalist, per day," he wrote.

Technology, access to which is increasing fast across much of the continent, offers the potential for more people to participate in the media through ‘citizen journalism’, said Brake. However, there are challenges beyond the varied levels of access to technology for educators teaching online journalism programmes.

"A lot of the books tend to assume an active engaged citizenry. In some African countries being an active engaged citizen can be dangerous. In others, even if it’s not dangerous, if you are not familiar with the organs of the media, the likelihood of thinking yourself a potential contributor is small. In populations with lower levels of literacy these issues may be stronger."

But teaching students how to work online will give them more chance of reaching a wider audience, telling their own stories to western and diaspora markets, said Brake. This could help to break down much of the stereotypical and inaccurate reporting of Africa available to western audiences.

"I wouldn’t want to discount the possibility that these technologies have the potential to target internal markets in new and innovative ways in the future," he added.

"Educators need to start by helping students build their basic digital skills. Just putting students in front of computers getting them familiar with the tools is essential."

Fred Mudhai, senior lecturer in journalism at Coventry University, said the key challenge for educators is the closed nature of the media and government in Anglophone Africa, an institutional culture inherited from the British colonisers. He said news media in Africa have hardly looked inwards critically at their own practices, as the UK media has been forced to do with the Levenson Inquiry into media ethics.

However, the emergence of new technologies is making it necessary for governments and news media to open up – something that teachers must be aware of, said Mudhai.

"Some countries are beginning to adopt e-governance and establish special departments to release information and allow citizen participation," he said. "Some news media are adopting strategies such as convergent, mobile and networked journalism."

Educators of future journalists need to teach them how operate in a culture of openness – in which they declare potential conflicts of interest and admit when they make mistakes. Thanks to new technology they will also be working in an environment with ‘immediacy’ at its heart – in which issues of authenticity and credibility are often of concern. Industry collaborations, for resource and professional benefits, are worth considering, he said.

ICT offers huge opportunities for African journalists to reach audiences around the world and tell their own stories, countering the misreporting of the continent often seen in western media. Clearly there are practical and financial challenges, but access to technology across the continent is growing. Meanwhile, more Africa-centred research into the impact of technology on African journalists and newsrooms is necessary to allow teachers to prepare tomorrow’s journalists for reporting in the digital age.