Technology - a tool for transformation

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As we consider the dire urgency and the magnitude of transforming the Jamaican education system, and the seeming impossibility of the system transforming itself, I am once again brought to thinking about basic laws of nature, in particular Newton's First Law of Motion which states that: "An object in a state of rest or constant motion tends to remain in that state of rest or constant motion unless an external force is applied to it." (This law is also appropriately called the Law of Inertia).

Applied to organisational transformation, the "object" would be the education system and the "state of motion" is the current rate of progress, or lack thereof.

Before considering the external force, I want to stay at the level of questioning for a while and ask: exactly what are we transforming - education or the education system? For, we could transform the latter without transforming the former. However, if we transform the former, the transformation of the latter must happen.

External force

If transformation of education is the goal, then what is the external force that will transform it? There is no doubt that visionary, action-based leadership is that force; however, given the magnitude of the gap between where we are and where we must go, such leadership requires a tool that will disrupt the status quo in a most fundamental way. The most dramatic and impactful changes in human history are being wrought right now with the advent and development of information and communications technology (ICT).

Dream with me a bit - suppose technology could put the power of learning in each student's hands? Suppose each child could have instant access to libraries, encyclopedias, dictionaries, music, current news, opinions as and when they wish? Suppose each child could participate in the largest community in the world - the online community, by posting their own news and opinions? Can you imagine how motivated children would be to learn?

Such a scenario is a real possibility due to an initiative of the MIT (Massachusetts Institute of Technology) Media Lab - One Laptop Per Child (OLPC). This initiative grew out of a commitment to bridge the digital divide between the developed and developing worlds, in the shortest possible
time, by harnessing the power of ICT. The basic premise is that the laptop is "a window into the world and a tool with which to think" - something which all children are capable of, given the tools!

OLPC has now developed a prototype of a laptop that costs US$100.00 and which features, among other things:

- Linux-based operating system, ensuring that software is free
- 4 USB ports, but no hard drive
- Wireless broadband
- Local area network
- Independent power supply, e.g., windup
- Sturdy, heavy-duty case

OLPC proposes to supply these laptops through ministries of education, with minimum order quantities of 1 million units. It is expected that production will start in 2007.

**Vast network**

Imagine each Jamaican child with their own laptop! Imagine the pride of each child going to and from home, school and play with the power of the vast network of knowledge in the world at their fingertips!

What would this do to the education system? I imagine that, among others things:

- It would reduce the dependence on printed material - it is my understanding that the Ministry of Education currently spends J$1 billion on textbooks - and this is by no means adequate.
- Teachers would have to change - children would come to school already armed with knowledge, so that the teacher would be less of an authority figure at the front of the classroom and more of a facilitator of learning for each student. Teachers will have to open to the reality that students may know more than they do.
- Teaching would change - there would be more student to student interaction as children share their learning with each other, not only in the classroom but across the world. Teaching would become less of rote delivery and more analytical, exploratory and experiential.
- Indeed, the whole concept of 'school' may change! For the laptop would now be the place of learning!
- Parents would be more involved, as the children would bring their laptops home and be able to demonstrate their exploration and learning in an exciting, engaging way.
- What would such an initiative cost Jamaica? Assuming 600,000 students at US$100 per laptop per child, we would need US$60,000,000 (about J$4 billion). Is this attainable? I suggest that with some commitment and creativity, it is not beyond us all to raise this sum. For example, the J$5 billion taken from the NHT last year and used by the Transformation Team would have had significantly higher and a more sustainable impact had it been used for this purpose. Other possible sources could include:
  - Current budget of the Ministry of Education for educational materials and other things
  - Allocation from the current budget of the Ministry of Commerce Science and Technology
  - Private sector foundations, most of which already have education as a prime area of focus

**Donor funding**
The Jamaican diaspora, many of whom are actively seeking ways to give back and are concerned about the state of education

Parents and students - some contribution, no matter how small

And how about ‘brown money’ - check the ground around any bus stop and you will see hundreds of dollars literally thrown away!

One laptop per Jamaican child will revolutionise education. It will force the transformation of the system. It is doable. It MUST be done! Jamaica must do it!

For further information on OLPC go to: www.laptop.org. Marguerite Orane is a partner in the firm Growth Facilitators. She can be reached at mo@cwjamaica.com