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Welcome to **ATTACK!** a two-page occasional publication. Most of **ATTACK!** will be concerned with the holistic curriculum which, if acted on, is a fundamental way to undermine the present undemocratic education system. Don't be discouraged if opportunities to teach holistically are limited, do your best, be a guardian, and act as a witness to this culturally significant and inspiring way of teaching and learning. **ATTACK!** is a partner to <https://networkonnet.wordpress.com>

Computers needed in employment – bingo – computers should be central to learning: NO! NO! NO!

While computers are important to the lives of children in their transactions with the world, and will be central to their lives as adults, doesn't mean computers should be central to their lives in school education. Making computers central in school education would be to place computers above all other parts of education to damaging consequence to those other parts and to children's developmental growth. The place of computers, if a new and more significant place is justified, should be as part of valid and thoughtful education change drawing from the vocational to the pedagogical to the philosophical not, as the case now, from ideological groupings, profit-interested industry, vote-seeking politicians, and computer-education enthusiasts.

A policy of computers in schools has been speciously driven by those behind the education reform movement. These are the powerful people who believe that the school system is lax, resulting in problems in the economy. The solution for the nation's problems, they say, lies in improving schools by demanding more from the existing system, and by setting up stricter accountability procedures. It is taken for granted that, in the same way that the powerful introduced technology to industry, if technology is introduced into education it will achieve the same efficiencies. If computers can be used to teach students, they claim, this will result in more efficient teaching taking place. The results will be better and more objective and reliable.

The problem with this understanding about teaching and learning is that it doesn't work. It is a complex set of strategies which teachers learn to draw on, in the effort to provide learning experiences for their students. It is a complicated, labour-intensive process. In order to make teaching fit computer use, the teaching is inevitably changed and often reductively to something less rich. Learning is a messy, frustrating, stimulating illogical process. It requires motivation and interest on the part of the children, together with a complex set of capabilities with which to construct meanings.

There is a tendency, with the use of computers, and leaving aside so-called inquiry learning for the moment, for the curriculum to become increasingly planned, systematised, standardised at a certain level, with the focus on competencies measured by standardised tests. The direction is inevitably to a dependence on pre-designed commercial materials. Curricular knowledge is reduced to skills and behaviours, which can be standardised. The curriculum then becomes a set of materials, a prepackaged, standardised programme which is designed by people who are not part of the teaching-learning process. These programmes specify all that the teacher and the children need to know, say and do, and what the appropriate responses are. In this situation, the job of the teacher, and I'm talking about directions here and the involvement of multi-nationals, is to help load and unload the machine, and help students through the package or the manual.

We need to call on the holistic here.

The holistic is a set of timeless principles fit for purpose as the basis for education in democratic societies. No matter the technological or sociological changes, the holistic still applies, both different and the same in application but fundamentally the same. The question might then be asked how the idea of holistic fits with the use of computers; in one sense too well. In classroom practice, some characteristics of the holistic are easily translated into the hackneyed process of children choosing what they want to inquire into and then researching that choice – researching that choice using computers. The close association of computers with that form of inquiry has led to a kind of learning indistinguishable from old style projects. Children patching internet information as answers to a question no matter how sophisticated the question, or how cooperatively undertaken, is still undistinguished teaching and learning.

To make computer learning rich and challenging, I urge teachers to consider carefully my plea to teach, actually teach – teach in a certain way, a holistic way. To be educationally vital, computer use needs to be led by those who first know the curriculum, at the moment it isn't being. No matter the curriculum area, the

activities for teaching need to be organised into an effective learning sequence: an introduction, a gaining of knowledge, a challenging of flexibility of understanding, and a conclusion. It also needs to have a connectedness to children's other understandings, their context, and key disciplinary ideas.

That means that teaching children to read is consistent with getting children to want to read – to become independent readers; that books are the staple of children's reading (that is, not bits and pieces from computers or journals), and especially fiction books (which are important to children becoming emotionally sensitive and mature). That means that the main aim in expressive writing is writing with sincerity; and in expository or argument, writing clearly and logically – which means a significant amount of time is needed to motivate children to care about their writing, to think deeply about it; it also means expressive writing should be the emphasis in primary schools, not expository, because primary children, in particular, are naturally motivated to write about themselves and their world. That means that drama, dance, and the arts are everyday parts of the curriculum, sharing the same main aim and purposes as expressive writing. That means that mathematics extends far beyond numeracy to a curriculum area based on solving problems, genuine problems. That means that science is a continuous experience for children based on science events around them – the purpose being to establish the connectedness of science phenomena. That means that social studies is about real people in the past, the present, and from New Zealand and elsewhere – with connectedness established by developing a feeling for the people being studied. That means that physical education concentrates on activities that children can undertake independently in their own time whether at school or home. And in all curriculum areas that means that the knowledge gained and the skills to be developed are learnt in the course of pursuing the main aim – and genuine thinking is encouraged through open-ended activities taken in an open-ended way.

To establish whether genuine thinking is occurring in children's computer use, a number of questions need to be asked. They are the same questions that need to be asked no matter the teaching form or tool, but are often not asked in computer use, because the use of computers is too readily assumed to be a sufficient answer in itself. Are the children being provided with systematic opportunities to interact with the thinking of other children to the benefit of deeper and more flexible thinking? Are the children being motivated to think deeply and flexibly as a result of the teacher setting up a number of open-ended activities at various stages of a topic? Does the children's learning have a connectedness with previous learnings, the children's context, and important disciplinary ideas?

There are some concerning questions about computers in learning that I'm only touching on here, for instance, the way computers might be used to indoctrinate children through programmes delivered on a large scale to classrooms, habituating children to respond to machines as a primary source of learning, homogenising information to a caricature, and reducing in function and importance the development of social relationships. There is likely to be a concerted drive to use computer learning to justify increased class sizes, indeed a move to mass learning, and to control what teachers do. The promise was that computers would be tools, but now rooms are being built for those tools, and now schools around them. It is my view that the government, perhaps intuitively, is laying the ground for this by continually increasing its control over schools, avoiding or distorting parental views and, in the construction of new schools, impressive as the new buildings are, providing cavernous rooms, specially constructed for a form of computer learning that I view as putting the architecture in control of the curriculum and being careless of children's learning needs and psychological security.

Teachers in pursuing the holistic seek ways to get children thinking: making use of opportunities that arise, making use of children's needs, interests, and characteristics. They are uniquely placed to help build in children a connectedness with happenings around the world and important ideas within the various curriculum areas. The willingness and ability of teachers to undertake this should be the meaning of the overused label of 21st century learning, and as it was or should have been for 20th century learning; and in it lies the credibility of teachers as professionals and, I believe, the wellbeing of our democracy. As children get older, direct vocational matters should assume a greater significance, and so should computers as part of that, but there is far more to education than direct vocational matters (as important as they become) for instance, the ever-continuing preparation for the broader life. All this should be part of the big (but much wider than just computers) education discussion. However, what we should know above all, and we should hold on to as something real and solid amidst the ephemeral and flux, is that the fundamentals of children's learning – if purposes are humanistic, enabling, and democratic – remain substantially the same. The best way to prepare children for the future is to meet their needs in the present.

