RED BURNS

Red Burns, of the many people who have contributed to the development of Physical Computing, is the one who can be said to have made the greatest contribution. She was born in Ottawa, Canada. On leaving high school she trained with the National Film Board of Canada and she became a documentary film maker.

It was when Burns saw the first video camera and recorder which was aimed at domestic users, the Sony Portapak, that she realised that anyone could become a film maker. Her thinking developed to include a much wider range of technology including the newly invented microcontrollers – small, inexpensive computers built on a single silicon chip. She became convinced that anyone could master these technologies.

To do this, however, more was necessary. She realized that an institutional base would be required. It would have been obvious to have placed this in a school of engineering but with possibly the greatest insight of all she put it in a school of arts, the Tisch School of Arts within New York University. Established within the Interactive Communications Program (which she ran for 28 years), it enabled development of a solid technological base which would be open to people without a technical background. Students on the program were encouraged to be creative and were free to work on whatever project they chose but they first had to learn how to program microcontrollers. They then learnt with and from each other and Burns maintained that she learnt more from them than they did from her. Whether or not this was true, she undoubtedly contributed the vision that made it happen and facilitated the learning overall. In addition, she coined the phrase 'Physical Computing' – sensing and controlling the physical world with computers.

Red Burns died in 2013 at the age of eighty-eight. You can read her *New York Times* obituary here: https://nyti.ms/2Tr71KX You can hear her talk about her achievement here: https://vimeo.com/78998056