

# TOWARDS AN ANTI-ESSENTIALIST VIEW OF TECHNOLOGY IN MATHEMATICS EDUCATION: THE CASE OF CABRI-GÉOMÈTRE

Bibi Lins

University of Bristol

In this paper both theoretical and empirical support to a view on secondary mathematics teachers' use of Cabri-Géomètre is presented. In particular, I argue that the use of a software package for teaching is not only linked to the school curriculum but also strongly linked to what a teacher *sees* in such a software package. By treating software packages as *texts* and secondary mathematics teachers as *readers* of such texts from an *anti-essentialist* viewpoint of technology (Grint and Woolgar, 1997), this paper discusses a preliminary analysis of two of the case studies - *The Cabri of Anthony* and *The Cabri of Camilla* - of my ongoing PhD.

Anthony and Camilla, two secondary mathematics teachers from a state school in Bristol (UK), were interviewed both in front of and away from a computer, talking about and describing *her/his* Cabri. They also had two of their lessons within a Cabri environment observed. Methodological issues on how the research had been designed will be given in the talk.

The research project aims to look at *what is actually being said* by secondary mathematics teachers about Cabri, and to investigate to what extent this is linked to the teachers' use of Cabri in the classroom, in their teaching.

Here, to look at 'what is actually being said' means to look at what meanings are being produced by teachers for Cabri. One of my assumptions is that the software package which reaches the classroom environment is not *the* software that once had been designed but rather *a* software: the one that the teacher has constituted. The Cabri presented in a classroom is *a* Cabri: *the Cabri of the teacher*.

One of the said powerful features of Cabri-Géomètre is *drag-mode* that allows deformation of figures, which brings dynamism, where ideas of dependence and independence can be explored by establishing relationships among points on geometrical figures. From the two case studies, *seeing* and *treating* Cabri as such has shown not to be the case. The drag-mode has nothing to do with *the Cabri of Anthony* and *the Cabri of Camilla* at the time they were interviewed. This does not imply that it will never be. New meanings can be or will be produced by each teacher for Cabri, as meaning production is to be viewed and understood as a process rather than something static and fixed. The point is the importance of such *awareness* of *the Cabri of the teacher* in order to understand *how* and *why* Cabri is being taken and used in a classroom in a certain way.

## Reference

Grint, K. and Woolgar, S. (1997): *The Machine at Work: Technology, Work and Organization*. Polity Press.