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**Carl C. Cowen\*** ([ccowen@iupui.edu](mailto:ccowen@iupui.edu)), IUPUI Dept of Math Sciences, 402 N Blackford St, Indianapolis, IN 46202-3216. *The Teaching - Technology Linkage in Mathematics.*

For the past four decades, more or less, mathematics instructors at all levels have been thinking actively about the introduction of new technology into their classrooms and especially about the ability of particular technologies to enhance their pedagogy. While the value of technology in enhancing learning has been widely discussed (argued?), less attention has been paid to the ways in which technology has driven or should drive WHAT it is that we teach.

It is the thesis of this talk that the existence of certain technologies should, even MUST, influence what we teach as well as how we teach it. Indeed, the teaching - technology linkage exerts forces in many directions, that is, technology alters what and how we teach and, even, who we teach and their response to the technology and our teaching efforts. Many of the examples in the talk will be from linear algebra, which, arguably, has been transformed and included in the undergraduate curriculum largely because of the changes in technology.

It seems likely that the changes will accelerate and become more integrated into the fabric of the mathematics we teach. Our challenge, then, is to think about the issues raised in such a way that we can guide a useful integration and interdependence of mathematics and technology. (Received September 20, 2007)