

On Evaluating and Teaching Teachers to Use Technology in their Teaching

David Greenfield

Human Computer Interaction

EDLT 771B

Pepperdine University

Graduate School of Education and Psychology

Fall 2010

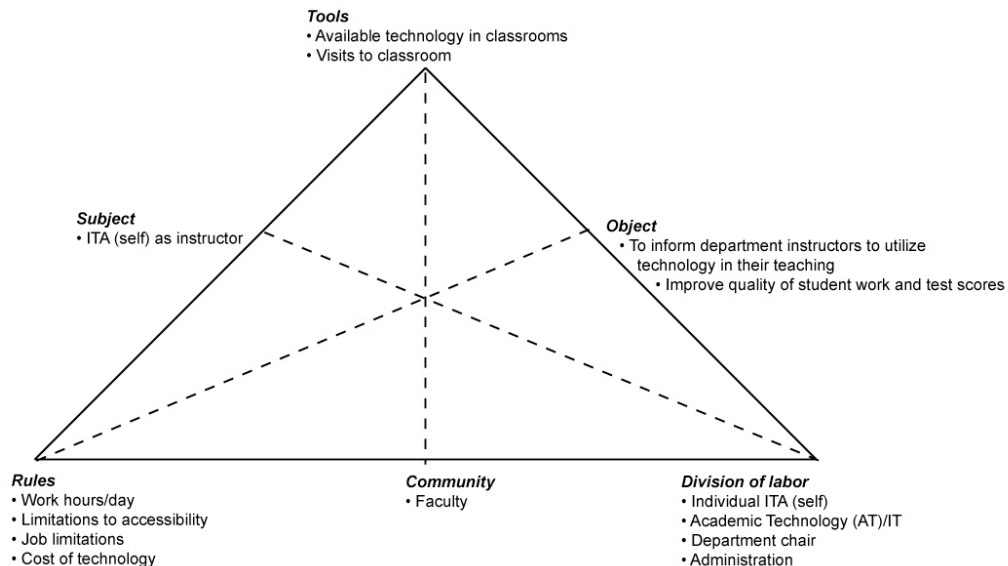
One of the primary tasks of the Instructional Technology Analysts (ITA) at Loyola Marymount University (LMU) is to assist and guide instructors to identify and implement appropriate digital technologies for their classes. Some of the available technologies include video and audio tools, classroom capture, wikis, blogs, web conferencing tools and others. There are two important goals for this: 1) to better engage this generation of students in academic learning; and 2) to help prepare the students for the needs and requirements that await them in the post-graduation job-market.

At first glance, this should not be an insurmountable challenge, since one of the often-unstated goals of a college education is to prepare students for the “real world”. But the truth of the matter is that there are a cadre of instructors more concerned with protecting their own jobs than truly educating and preparing the students. Although it may seem to be, this statement is not meant to be judgmental, but rather it is an observation gleaned from speaking with instructors about issues pertaining to rank and tenure rather than addressing the needs of the current student population. Students have also spoken up about instructors who are perceived (with some justification) to be computer-illiterate. Although courses are taught where computer applications may not be essential to the material, there are complaints that by not utilizing digital technology for both research and production, the students often feel that they are not receiving a “complete” education, and are ill prepared for the extremely competitive job market.

These observations are real. For example, there are instructors who are cemented in ways that they have always taught a class, those who are intimidated by computers and those who perceive computers to belong to the world of engineers. The challenges that these perceptions bring are formidable, but not insurmountable and provide opportunities for the ITAs to design processes that will capture the imagination of recalcitrant instructors and then, help them to overcome their misperceptions, fears and prejudices and to develop curriculum that will implement technology to help them utilize their knowledge of their discipline in a manner that more fully engages the students. In many ways, the roots of the problem relate to the media literacy. There are instructors who for various reasons do not integrate digital technology with their areas of specialty and there are

students who may be familiar with using computers for basic tasks, such as email and social networking, but not with academic research, writing or production. As the job of the ITA is to work with instructors, the challenge of the ITA is to identify ways to bring instructors and technology together. When this happens, the challenge becomes an opportunity of improved educational experiences for both the instructor and the student.

Engeström's Activity System model (Kaptelinin and Nardi, 2006) provides the ITAs with an excellent tool for identifying the goals, problems, process and players of this challenge/opportunity. The diagram below illustrates these issues that face the ITAs.



Object- *What is the outcome and what are the ITAs trying to do?*

- To assist college instructors to utilize technology in their teaching
- Improve quality of student work and test scores

Subject- *Who is trying to do this?*

- ITA (self) as instructor

Tools- *What will be used to successfully realize the outcome?*

- Available and accessible technology in classrooms (identify existing and needed)
- Visits to classroom (observe if and how instructor is using technology)
- Office visits (ongoing dialogues to understand content, curriculum and method)

Rules- *What are the limitations that will help or hinder the achievement of the goal?*

- Work hours/day (amount of hours a day ITAs are available to work)
- Limitations to accessibility (whether instructors and classrooms have computers, software and appropriate technology)
- Cost of technology (is the appropriate technology cost effective in terms of purchase price and maintenance fees, can cost be amortized?)
- Job limitations (assigned responsibilities and tasks, accessibility to decision makers and some technologies, training)

Community- *Who is the targeted user group that will be affected by the successful achievement of the goal?*

- Faculty (are faculty available and open to learning new technologies and methods of teaching?)

Division of labor- *Who are the people responsible for creating and implementing the methods for achieving the goal?*

- Individual ITA (works one-on-one with faculty- both individually and in groups)
- Academic Technology (AT)/IT (maintains network, maintenance and upgrade) schedule, purchase and installation of technology, long-term planning, communicating with deans about technology needs)
- Deans and department chairs (buy-in on implementation and training requirements for instructors)
- Administration (technology budgets, scheduling, support of instructors and ITAs)

This diagram illustrates the interconnectivity of a specific problem or goal, which in this case is essentially to change the culture of university instructors to be integrate technology into their classrooms, teaching and assignments. To accomplish this, it becomes necessary to evaluate the organizational structure of the university in order to understand who is responsible for each part of the process- from decision making, to budgets, researching and acquiring appropriate technologies, responsibilities for installation, maintenance and training. Understanding these different elements will help

guide the different players in developing an activity plan what will help insure a successful solution to the problem.

Reference

Kaptelinin, V., Nardi, B. 2006. *Acting with Technology*. Cambridge, MA. The MIT Press