Created by USNACracking the Nut

Making the best computing and most sophisticated methods accessible to the Social Science Undergrad

This is a paper presents strategy for introducing R to a social science department not necessarily ready to embrace it. It about not simply teaching R, but finding a mechanism to insert it into the core of a department. It suggests the naïve assumption of R's 'self-sellability' invites enormous frustration and almost certain failure. It argues that springing R on a department should be a campaign based on principles of military planning. It draws its occasionally offbeat lessons from the generally successful effort to integrate R in the political science department at the United States Naval Academy.

The key point is this: a successful R introduction does not resemble the entry of conquering heroes to the exuberant welcome of a liberated population. It is far more like an insurgency, fought fiercely behind the scenes.

For accomplished R users this is mystifying. We enthusiastically celebrate R's computational power, its magnificent graphics, and its explosive increase in functionality through tailored add-on libraries. Sometimes, though, we forget how intimidating it all looks to a novice uncertain about even loading the data.

Social science generally has been revolutionized by advances in sophisticated methods, and the disciplines have been forever changed. However, these developments have not altered the type of undergraduate selecting social science as a discipline. Nor have they necessarily spread to established faculty whose training predates this revolution, or whose interests are not easily addressed by a data set.

As a result, scholars selling R are greeted not by adoring throngs seeking leadership into the world of cutting edge social science, but rather by intensely skeptical stakeholders with strong interest in preserving the status quo. Frontal assaults on this position are futile; the push-back is overwhelming.

As a model for a successful introduction, this paper suggests following guidelines for military planning. Generations of the best military minds have devised strategies for asymmetrical match ups. Students in war colleges and service academies are challenged to examine lessons of the past when facing contemporary threat environments. They are encouraged to consider their strengths, and those of the enemy, and to bring maximum force to bear on a problem with supreme economy of effort.

This paper suggests that the problem of introducing R are partly tactical (using graphs and simulated quantities of interest to make complex findings accessible), and partly strategic (building alliances, scoring and exploiting visible public victories, and when all else fails, deceiving) until victory belongs not to the entrenched, but to the deserving. This paper tells how it was done here, and offers it as a model for others facing similar struggles.

Dubyak, William G, US Naval Academy