Confessions of a **Technologist**

aculty development professionals have much in common with guerilla warriors — not the bad guys who wreak havoc, but the "irregular" forces for change (see the sidebar "Definitions"). Faculty development professionals should consider adopting at least some guerilla tactics and strategies to facilitate change in higher education. They can use these tactics to promote the integration of technology in the teaching and learning process.

With more than eleven years' experience in university teaching, five years of instructional technology consulting, and six years in faculty development, predominantly in technology integration, I've seen what does and doesn't work in diffusing innovations. My observations come from community colleges, private liberal arts institutions, and major research universities. All share common challenges in integrating technology to improve teaching and learning.

Unfortunately, many impediments hinder effective use of technologybased teaching tools. They remain mired under generations of tradition, a situation exacerbated by a lack of information and understanding among faculty.

Faculty development professionals, charged with promoting the use of a variety of instructional technologies, might not notice the resemblance between their task and that of some rather unlikely "colleagues." In this article, I'll describe the characteristics of guerilla warriors and explain their tactics. Then I'll discuss how these tactics can be successfully adopted by faculty development specialists intending to effect change among faculty members teaching in the higher education environment.

Guerilla Characteristics

Determining if you're appropriately situated to use these tactics (or have "the right stuff") only requires understanding the nature of guerillas and ascertaining your resemblance to them. The primary characteristic is a commitment to bringing about change to better the organization. Modern guerillas are almost always

Guerilla tactics ease technology into teaching and learning

revolutionaries who want to change the current system, as opposed to reactionaries who protect the status quo.1 The current system of using technology for teaching in higher education (ripe for guerilla activism) is often fragmented in its support base, concerned more with hardware than with learning, and lacking in appropriate incentives. Promoting new ways of thinking about technology and new behaviors for learning improvement mark today's faculty development guerilla.

Another characteristic trait is an aversion to pitched battles.2 For faculty development specialists, this may manifest itself in what could be considered behind-the-scenes activities — those events that have goals beyond the obvious. In addition, this identifying trait excludes those individuals who prefer to engage in confrontational interactions or whose interpersonal manner would be described as aggressive or combative. Such characteristics often result in an "us versus them" mentality, the opposite of the desired effect of creating alliances. The guerilla certainly can engage in direct conflict if needed, but doesn't seek it out. Instead, the guerilla aligns with the group by being helpful, friendly, and sympathetic to the concerns of others.

Agility in a rapidly changing environment — a hallmark of the guerilla has an honorable place in American history. Francis Marion, known as the Swamp Fox, led his guerilla band with a mobility that outmaneuvered British forces. His efforts helped regain the Carolinas for the Colonial forces during the Revolutionary War.3 A faculty development specialist would more likely show agility in the swift evaluation of potentially beneficial practices for teaching and learning. This requires continual review of research in cognitive processing, technological advances, and learning strategies. The expeditious promotion of recently validated practices reveals the faculty development guerilla as a credible source and a reliable advisor to faculty.

Because guerillas work in environments shaped and controlled by the opposing forces, a clear understanding of this milieu is imperative. 4 Being well informed in the local context can mean the difference between being perceived as one of the group or as a fringe lunatic tilting at windmills to no apparent benefit. In faculty development circles, this means

- understanding the obstacles in the path of instructors who attempt to integrate technology applications into their instruction,
- knowing the incentives (or lack thereof) for innovation, and
- recognizing the multiple (and sometimes contradictory) priorities imposed on the faculty member who chooses to adopt new teaching strategies.

Teaching experience, while not mandatory, can be extremely beneficial to the faculty development professional who hopes to appreciate the issues facing instructors.

Definitions

Guerillas, for the purposes of this article, are individuals working to bring about change who don't belong to "regular" formations of soldiers or combatants. They typically belong to one or more small bands of highly mobile factions in a position of weakness against a stronger (and often enormously powerful) system, organization, or psychological perspective.

As a set of warfare strategies, querilla tactics have been compared to a "spreading puddle" in contrast to traditional, top-down military strategies that resemble "water running in a straight line downhill."1 Although I can't recommend some of the tactics adopted by guerillas — the use or implicit threat of violence, for example — for use in faculty development, many others are well-suited to promoting the use of innovative instructional strategies and technology applications for teaching.

Endnote

1. T. Yn, Psychological Operations in Guerilla Warfare [http://www. kimsoft.com/guerilla.htm, updated 2-14-98, accessed 8-3-00].

Examples of Guerilla Tactics Now Used in Higher Education

Many of my colleagues already use guerilla tactics in faculty development, but they declined to identify themselves publicly when I asked them to explain how their professional efforts have benefitted from such tactics. They agreed to provide the following examples for how they apply querilla tactics at their institutions only when I promised anonymity.

1. Moving among the people:

- Recognizing the efforts of specific faculty for their innovative technology applications by highlighting their achievements in an ongoing column that appears in the institution's faculty/staff newsletter
- Establishing a faculty advisory board for technology support
- Creating links among faculty working on similar technology-related projects who might not meet otherwise

2. Persuasive techniques:

- Providing examples of positive results from the integration of technology better class attendance, more participation in discussions, more carefully written papers,
- Modeling in faculty workshops the instructional strategies promoted for classroom use — providing constructive feedback, asking questions that stimulate higherorder thinking, and so forth

3. Constant action:

- Offering a series of workshops that encourage "small bites" of technology integration for faculty with more interest than time
- Sponsoring special interest groups (SIGs) for faculty to meet on a regular basis and discuss specific technology issues (for example, effective use of presentation software, better online discussions, and managing real-time chat sessions)
- Following up with individuals after large group activities to ensure that all guestions are answered and to reinforce the role of the support professionals as faculty colleagues

4. Judicious use of retreat:

- Taking a semester off from formal activities (like workshops) to evaluate the effectiveness of previous offerings and to review alternatives
- Reconsidering any activity that receives little support from faculty opinion leaders

5. Combining efforts:

- Ensuring that technology integration activities are tied to institutional priorities
- Seeking out opportunities to work with administrative offices (room scheduling, facilities operation, and so on) to reduce or eliminate conflicts in efforts to integrate technology into instruction
- Ensuring that innovations outlive their novelty by arranging in advance for long-term support mechanisms (such as equipment maintenance and replacement plans)

The guerilla band may work independently, but knowing how to use the help of external sponsors offers significant benefits. In warfare, guerillas often have the aid of other countries with sympathetic political philosophies. The savvy faculty development group will sometimes rely on private consultants, hardware or software vendors, or colleagues at other institutions who have

faced similar challenges. Implementing wide-spread change — especially when it involves technology — can become extremely expensive and time-consuming, and shouldn't be attempted without the support of others who can lend assistance when necessary.

Finally — and pretty obviously the guerilla needs to maintain high morale to work against what can seem like overwhelming odds. Faced with promoting change in higher education - an environment not known for its flexibility — the faculty development specialist must avoid fatalism, cynicism, and stagnation, while maintaining a healthy balance of realism and hope. Joes⁵ attributed the positive morale of guerilla warriors to "belief that the cause is both just and destined to triumph." Faculty development guerillas likewise must hold firm to the purpose behind their enterprise.

These characteristics — commitment to bringing about change, aversion to pitched battles, agility in a rapidly-changing environment, knowledge about the local context, awareness of external sponsors, and high morale - provide a general profile of the individual who could be classified as a guerilla. Note that I haven't articulated these traits to promote or reinforce arbitrary categorization of facdevelopment professionals. Rather, I suggest that individuals recognizing themselves in this description may, as a consequence, choose to employ guerilla tactics to enhance their professional effectiveness.

Tactics

No guerillas exist without action, and tactics truly define guerilla undertakings. The five specific tactics discussed include

- 1. moving among the people,
- 2. using persuasive techniques,
- 3. constant activity,
- 4. judicial use of retreat, and
- 5. working with "regular" forces.

See the sidebar "Examples of Guerilla Tactics Now Used in Higher Education" to see how faculty development professionals today use these tactics to accomplish their goals.

As a side note, the use of terrorism or personal assaults - although adopted by some modern guerilla forces — were never promoted as the most useful or effective activities by Mao, Guevara, or other well-known guerilla chieftains. Moreover, their use in faculty development settings has limited benefit. I don't encourage them.

Moving among the people, as a tactic, has its roots in Mao's teachings. He considered the guerilla a fish and the people "as the water in which he swims." This enables the guerilla to recruit followers from among the local population and to identify the opinion leaders within the social structure. These strategies are essential to building a base of local support for later activities and for gleaning helpful information on potential obstacles.

For faculty development guerillas, moving among the people requires discarding any viewpoint that fosters an us-versus-them classification of the (good) innovators and (bad) faculty who need to be overhauled, transformed, or somehow repaired. This unfortunate taking of sides will occasionally result from top-down sorts of tactics that impose clear-cut dichotomies of those who fall into line and those who resist.

Tactically, moving among the people helps faculty development professionals recognize and value resistance as a signal that additional education is required or that they need to work more closely with opinion leaders. The image of guerillas working like a spreading puddle, rather than a stream running downhill, is appropriate here (see the sidebar "Definitions"). The idea isn't to sweep faculty up in the onrushing deluge, but to introduce change in a deliberate and continuous evolution of applications compatible with their existing values and practices.

A practical example involves recognition of exemplary work already being done within the faculty circle. Highlighting the efforts of those already in the accepted group gives others a credible model to emulate. Not only does this align the change agent (the faculty development professional) with the group, it facilitates the diffusion of innovations by using the communication networks within the group and recognizes the strength of those interpersonal bonds.

Awards or grants programs can

function in this way, along with newsletter articles publicizing the innovative work of a different instructor each month. In addition, a philosophy that encourages incremental change makes faculty members likelier to adopt new strategies than if they're expected to start from ground zero. Workshops that include several "try this out tomorrow" ideas can get the ball rolling if some individuals seem resistant to completely rebuilding their coursework.

This philosophy runs counter to the popular argument that only by abandoning our current practices, reorganizing the traditional structure of higher education, and wholly adopting new paradigms of teaching and learning will true innovation

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occur. Well, maybe — but such an event isn't on the horizon. Promoting small ideas that work within the existing structure while concurrently introducing revolutionary seeds into the system seems the best interim strategy.

The effective guerilla uses persuasive techniques to create a favorable opinion of the cause, win over the population, and longevity for the effort.^{7,8} Without a favorable opinion of the cause, locals will relegate guerillas to the status of rogue gangs not acting for the benefit of the general population, making support unlikely. Winning over the locals requires that the guerillas build credibility and inspire confidence. Ensuring longevity means persuading members of an intact social system to support or join forces with a group challenging the status quo — a system that, for some, may have direct or indirect benefits. For others, the existing structure may not be optimal, but it's familiar, and most people aren't predisposed to venture into the unknown.

The guerilla's true goal is to target the minds of the people. For the faculty development specialist, this can pose a formidable challenge. Expecting individuals who are the successful products of the existing educational system (faculty members) to embrace teaching strategies that may appear to run counter to this tradition can be a frustrating experience. Techniques for winning over such a group include building professional credibility and emphasizing the similarities in values held by the guerilla and the local population. For example, when promoting innovative practices, discuss research findings supporting such instructional strategies, present examples from other institutions where such strategies have been successfully implemented. then discuss how these strategies complement the jointly held values of the group.

Identifying those values and using this information to structure meaningful faculty development strategies heightens the persuasive impact of a campaign, as well. A department that values a high degree of student interaction would likely want to learn about teaching strategies (use of online discussion groups, for example) that facilitate interaction. If scholastic rigor is paramount, instructional activities designed to reinforce key concepts (such as embedded assessments) could be explored.

For new ideas about how technology can improve teaching and learning to be adopted and ultimately manifested in the classroom, the identification and persuasion of opinion leaders also proves critical. These individuals have the greatest influence within the group, after all. Building a cadre of respected faculty members who support the guerilla's

activities becomes an invaluable part of the diffusion process, exponentially extending the initial efforts at persuading others to join the movement.

The guerilla doesn't rely on winning a few major battles, but maintains constant action, wearing down the opposition through persistent effort. No single, isolated act determines the outcome of the overall movement. Marion's group cut off supply lines to the British troops, provoked them night and day, and disrupted their communications, among other things, to physically and psychologically fatigue the enemy.9 Thus, no single event (a major battle, for example), but rather many small skirmishes, succeeded.

The guerilla hoping to introduce faculty to instructional technology applications would be wise to adopt this attitude of persistence, albeit with a focus on constructive deeds. By saturating the faculty with helpful ideas for technology integration, numerous opportunities for training, and useful information on the advantages of such applications, the faculty development professional prepares the ground for adoption. In addition, the faculty development professional should attend events related to teaching and learning issues — teleconferences about assessment, special lectures on accreditation issues, or meetings to discuss the development of an institutional honor code. These minor, but frequent, reminders will gradually create a sense of the unremarkable about various technologies — a necessary step toward their diffusion throughout the organization. No single workshop, seminar, brochure, presentation, discussion forum, demonstration, Web site, or consultation will win the minds of the faculty, but the continual dripping of good ideas onto the rocks of tradition will eventually wear away the resistance.

By definition, guerillas are fighters in a position of weakness against a more powerful enemy. Realistically,

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this means that knowing when to retreat has strategic value. Guevara put it succinctly: "The essential task of the guerilla fighter is to keep himself from being destroyed."10 Complementing this is the idea that the guerilla should not undertake a skirmish that cannot be won - why waste scarce resources on a futile effort?

This tactic has great value in faculty development. Never plan to achieve complete adoption and diffusion of an innovation throughout a group — it's unrealistic and almost always unachievable. Look at it with a triage philosophy, determining how best to use the finite resources of time, people, equipment, and facilities. Faced with individuals staunchly determined to avoid change, should you continue trying to win them over? Doing so uses time or other resources that could be put to more effective use elsewhere. The key is to distinguish between the truly resistant and those who would eventually come around given time and motivation. For this, unfortunately, there are no easy guidelines.

Knowing when to retreat also requires evaluating past efforts to determine how best to proceed in an ambiguous environment. If earlier attempts to engage faculty in technology integration activities failed, analyze why and determine how things could have been done differently. This might manifest itself in a semester of no workshop offerings while the faculty development crew rethinks previous efforts and plans modifications. Retreat doesn't necessarily indicate surrender — it can instead provide a space for reviewing strategy and reforming later events.

Guerilla activists sometimes work independently of any organized military forces, although they're more effective if their efforts are combined with traditionally trained and deployed units. Each form of warfare has strengths complementary to the other's weaknesses, allowing greater flexibility for the regular troops and added support for the irregulars. This alliance with conventional military ranks also lends an air of credibility to the guerillas, providing validation from a larger (and probably more organized) system.

You need only review the history of education in the United States to realize that efforts at instructional innovation are most effective when combine top-down bottom-up strategies. Wiring campuses (K–12 through postsecondary) offers an excellent example. Grassroots campaigns involving teachers, students, and parents have worked to promote the use of the Internet in schools, while administrators have operated from a big-picture perspective to ensure that funding and infrastructure concerns were addressed for long-term viability. Such a project could not succeed with only one part of the equation without high-level support to fund the capital improvements required for networking, nothing would happen; without the grassroots support to focus on the most effective uses of a network, the hardware quickly becomes irrelevant.

Technology integration has become too expensive for anything resembling autonomy to drive it. Guerillas will, in many cases, need the support and resources that an administrative entity can provide before they'll make a noticeable difference in the status quo. In a practical sense, this may mean sitting on committees that represent faculty interests in technology initiatives, attending open-forum meetings with administrators, and offering assistance on special projects related to technology and teaching. Creating alliances with the administrative faction (while maintaining lovalties to the people) also builds credibility for guerilla forces.

Change Agents

It should come as no surprise that similar ideas and tactics link guerilla warriors and those who work for change in large organizations. Their motives, in a broad sense, are often similar, and they share many personal traits, as well. Learning how to facilitate change and promote innovation (particularly under difficult circumstances or in a hostile environment) may thus mean adopting guerilla tactics. These methods can facilitate the diffusion of innovations by identifying opinion leaders, using existing communication channels, and emphasizing the relative advantage of adopting the innovation.11

Although this perspective employs a warfare metaphor, it's important to remember that these tactics don't presume (or encourage) an us-versusthem dichotomy of change agents and faculty, nor would I encourage deceitfulness. The "enemy" here is the collected obstacles that deter faculty from adopting technology applications to improve the teaching and learning processes in their courses. Lack of training or tech support, outmoded classroom facilities, nonexistent incentives, or opposition from administrators are just a few examples of typical deterrents to innovation. Faculty development guerillas work with faculty, not against them, to surmount these hurdles.

Finally, the techniques described could be applied to any form of innovation or change. The process leading to improvement, whether radical or modest, remains a constant. Guerilla activism invites those committed to the cause. \boldsymbol{e}

Endnotes

1. H. S. Hughes, "Grandeur and Misery

- of Guerilla Warfare," Commentary, 34 (2) (1962), pp. 145–150.
- 2. U.S. Army, Department of Nonresident Instruction, "Historical Instances in Guerilla Warfare," Selected Readings in Guerilla Warfare (Washington, D.C.: United States Army, 1962).
- 3. A. I. Joes. Guerrilla Warfare: A Historical, Biographical, and Bibliographical Sourcebook (Westport, Conn.: Greenwood Press, 1996).
- 4. C. Guevara, Guerilla Warfare (New York: Monthly Review Press, 1961).
- 5. Joes, p. 6.
- 6. Hughes.
- 7. Guevara.
- 8. U.S. Army.
- 9. Joes.
- 10. Guevara, p. 21.
- 11. E. Rogers, Diffusion of Innovations, Fourth Edition (New York: The Free Press, 1995).

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