

A Response to the CHC Tablet Initiative  
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**Introduction**

After carefully reviewing the Education Technology Initiative Proposal (referred to as the Tablet Initiative in this response) presented by the Crafton Hills College Education Technology Committee (ETC), and promoted heavily by campus management, I feel compelled to respond to the contents of that document and voice my strong opposition to this unsupported and ill-conceived 'plan'. Indeed, as a Dr. of Educational Technology, the former Coordinator & later Dean responsible for Technology Services on this Campus from 2002 to 2009, and the recipient of commendations in regard to the work of Technology Services from the Accreditation Review Committee in 2008 (a rare rainbow in a report filled with storm clouds), I feel obligated to weigh in on this proposal.

After a careful, informed reading of the proposal my opposition arises as a result of the following concerns:

1. A careful vetting of the unsupported claims and rationale made in the proposal;
2. Unease with the strategy of releasing the 'completed' proposal, in May, without any solicited input from the *entire* CHC community, especially students;
3. The fast-tracking for approval of the proposal before the CHC community had any real opportunity to examine the contents in detail or provide input;
4. No other critical response has yet materialized (nor been solicited by the author(s) of the proposal) and, so far, it appears no campus wide discussion focused on this proposal has been desired, requested, or planned in the future.

The \$3.5M price tag attached to this proposal, combined with the intent to directly impact virtually everyone on the CHC campus (most notably students), dictated that as many opinions as possible should have been elicited, considered, and discussed prior to any serious move towards implementation (or approval).

Though tablets might be a good solution within some disciplines, in some courses, under some circumstances, to force a one-size-fits-all technology solution onto an entire campus without serious research and input from every constituency in the organization is simply poor practice, and would not be supported by any reputable authors or experts I am aware of in the fields of change management, education, or educational technology.

This response has several parts;

- 10 Reasons This Proposal Should Not Be Approved
- A research supported analysis of the flawed rationale presented in the proposal
- Thoughts on innovation
- Final Thoughts
- References

## **10 Reasons This Proposal Should be Abandoned**

1. The rationale presented in the proposal are questionable, at best. They are unsupported by research data, or any other generally accepted objective measures;
2. The process to develop the proposal was flawed. Apparently, and as expressed in the Academic Senate meeting during discussion for approval of the proposal, no students and only a handful of faculty participated in the development of this proposal;
3. The proposal appears to be a solution looking for a problem. It is not trying to solve any clearly identified student success or student learning problem on the CHC campus.
4. The \$3.5M price tag is excessive, especially when considering there is no objective evidence (of any kind) offered within this proposal to suggest this program can achieve positive student learning outcomes or increased student success rates, nor are any identified;
5. There are no identified goals, objectives or other clearly identified metrics designed to indicate the success (or failure) of the program;
6. The lack of objective support makes the document little more than a wish list of assertions and hoped-for outcomes, rather than a carefully crafted change initiative;
7. The timing of the public presentation of the proposal (end of school year) suggests that careful vetting, open conversation, and critical consideration of the proposal was neither welcomed, wanted, nor desired.
8. No records of the process (minutes, meeting summaries, collected evidence, etc.) seem to be available as a record of the development of the proposal. In fact, there is no reason to believe any technology, other than tablets, was ever considered when developing this plan - an idea publically promoted by management but, to my knowledge, never by faculty, staff, or students;
9. The proposal exploits students by forcing them to use limited financial (and financial aid) resources on an excessive \$250-\$300 semester technology fee., and does not allow them to opt out of the program. This turns students into a profit center for the college, by exploiting their limited financial resources.
10. The initiative exploits students by charging them far more than the cost of buying a tablet on their own, but does not allow them to own the tablet until they have attended for three consecutive semesters. This proposal views students as a profit center for the college, and I can think of few other ideas that so degrade the vision, role, and purpose of California's community colleges than exploiting our students for their money, and especially their financial aid.

When considering these 10 reasons (there are many more) it is not the intent of the Tablet Initiative that unsettles my common sense regarding technology integration of this scale. Rather, it is the lack of a transparent and inclusive process, the lack of data to support the ambitious claims made, and the misguided belief that tablets seem to be the only technology that can ‘magically’ solve a host of problems (real or imagined) on the CHC campus, that should persuade anyone with organizational-level technology integration experience to take a stance in opposition to this proposal. Indeed, those looking critically at this proposal should have VERY serious concerns about the potential huge waste of time, effort, and money, that the implementation of such a poorly designed change initiative will likely impose on CHC both in the short and long term. This proposal is certainly not a model for good stewardship of public funds, and ignores best practices for developing organizational change initiatives and the development of learning organizations (Kotter, 2012; Senge, P., Kleiner, A., Roberts, C., Ross, R., & Smith, B., 1994).

Before wading into the specific flaws of the Tablet Initiative, the CHC community ought to question why this proposal was developed without proactive outreach to the entire CHC community. Then, honestly ask which of the two proposed strategies (below) would’ve better served the campus and our students if we were honestly trying to develop the most effective technology plan we could muster:

1. We should invest \$3.5M in a program that integrates tablets into the CHC environment;
2. We have \$3.5M to invest in technology to improve student outcomes and success. How should we invest that money?

Comparing these two proposals is not really fair in terms of inclusiveness, community problem-solving, and campus buy-in because the first is a one-size-fits-all dictate, the second is a desire to find the best technology solutions to help CHC students be successful in their educational endeavors. The first assumes those authoring the proposal know best, the second assumes we are best at solving problems when we are all a part of the discussion from the outset. The first is the product of a perspective limited to a small group of people working (apparently) without data and without the input of the larger CHC community, the second develops a community brain trust to try to resolve whatever student success problems might be solved using technology if, indeed, technology even offers a solution.

This Tablet Initiative paves an expensive road of good intentions that provides virtually nothing to support the claims made within its 20 pages. This proposed dogmatic approach to technology integration should be abandoned now before any further implementation is approved.

That said, recognizing that CHC faculty can (and will) innovate in their classrooms if provided *real* opportunities to do so, the pilot programs already in process should move forward because they were developed from the grass roots by instructors. Such instructor initiative should not be stopped, nor abandoned unless (or until) data suggests the strategies are not working. Instead, a new initiative should be developed using a more inclusive, professional, and transparent process that allows instructors, students, and staff to research, envision, and develop *real* technology solutions without locking the campus into a narrowly defined, one-size-fits-all solution to unidentified problems - a misguided and archaic leadership strategy for 2014.

## **Analysis of the Flawed Rationale (Method)**

What follows is an analysis of the 10 rationale presented in the Tablet Initiative as the reasons the proposal should be approved and implemented. There is no support offered for any of the rationale either in this section of the proposal document nor any other part of the completed Tablet Initiative text. What follows each of the rationale are the research-based, peer reviewed, findings of experts in technology integration and education that call into question the unsubstantiated claims made in those rationale.

Though the evidence presented in refuting the proposal rationale is far from complete, nor an exhaustive look at each rationale, it presents *real* research of the type that arguably should've been conducted when putting this initiative together in the first place. Frankly, that no reliable research was apparently conducted, nor presented in the proposal should be evidence enough that the plan should not be taken seriously, let alone, actually be in formal consideration for campus wide implementation. CHC claims to be a campus devoted to data driven decision making, but the complete lack of supportive data in this proposal suggests that assertion is not actually being practiced (except, apparently, in the empty words contained in shelved documents that make this operational claim).

The evidence presented that is counter to the proposal rationale is a direct challenge to the proposal in several ways:

- This response is data driven and evidence based, the proposal is neither;
- The kind of careful vetting and research used to prepare this response should've been conducted before (and during) development of the Tablet Initiative and certainly prior to presenting it to the CHC community;
- If exception is taken to the evidence presented here in response to the proposal, its proponents should refute it by doing the hard work one would expect of a group trying to impose a large scale technology integration onto any organization;
- Given that 22 people are identified with developing the proposal, I am at a distinct disadvantage trying to rebut it alone, yet I have the distinct advantage of expertise in the field. Despite the risks of challenging this proposal, I feel the time and effort devoted to this response to be both necessary and important to the campus and, therefore, warrant my efforts.
- If those promoting this proposal cannot at least support their assertions with objective research, cannot somehow better justify the spending of \$3.5M, and cannot develop measurable goals and objectives designed to solve *clearly identified* problems, they should abandon the proposal immediately and begin a new campus wide discussion of possible technology based solutions for actual, and clearly identified, problems on the CHC campus. In other words, a strategy designed to actually solve problems rather than experimenting with untested technology to try to solve unidentified problems.

## **Unsupported Rationale vs. Supported Evidence to the Contrary**

***Rationale:*** *Increase Book Availability—The fee structure we plan to use will allow for free or nearly free ebooks for all students. Books will be ubiquitous with this approach.*

Research dating back to the early 1990's indicates that students often experience problems reading digital texts (Phillips, 1994). Though Phillips was specifically focused on how to best teach the writing process using computers, issues identified with students reading (slower), text navigation (less accurate), comprehension (poorer), were considered to be critical elements writing instructors needed to consider before forcing students to undertake digital writing and reading.

Despite an expectation that familiarity with reading digital texts would improve in readers as they become more familiar with the digital format, Schugar, Schugar, & Penny (2011) found in a study of college students that, "Our baseline data revealed that our treatment group showed evidence of more advanced critical thinking about what they read when reading from a traditional text." What was also alarming in this research was the finding that a lack of transfer of good reading skills was occurring in the e-reading environment, "...students reported using active reading skills (like highlighting, bookmarking, and annotating text) when reading traditional texts, (but) they did not transfer these active reading skills to eTexts/eReading."

In a 2013 study of college students, Vandenhoeck cautions instructors about the siren call of e-readers, concluding that it is a mistake for educators to assume that students can read as effectively from digital screens as they can from traditional texts.

Question: if we impose e-books on our students (and instructors – a serious academic freedom issue) will we actually be undermining the efficiency and effectiveness of our students to learn? Certainly, the current, inconclusive body of research on this topic is too wide to cover here, but suggests it's possible. Books (digital or traditional) *are ubiquitous* in the college classroom...tablets will not change that reality, yet might actually hinder student learning.

The enthusiasm within this rationale operates under the assumption that e-books benefit students through cost savings, not because they are more effective tools for learning. Although the costs of e-books can be less than traditional texts, that is certainly not always the case. Evidence that students learn better, faster, or more comprehensively using e-books (or e-readers) is not the conclusion of today's research on the topic. If e-books turn out not to be the most effective learning tools (for any of a host of possible reasons), making them cheaper and more widely available may actually undermine any benefit that 'might' occur as a result of any realized cost savings. The real problem is that no one knows, and certainly this proposal offers no evidence to suggest students will gain any significant learning or success outcomes as a result using e-books.

***Rationale:*** *Improve College Readiness—We will integrate basic skills content across the curriculum by developing a seamless integration between the classroom and the Tutorial Center (e.g., contextualized DLAs).*

It is unclear exactly how the Tablet Initiative will impact this rationale. Directed Learning Activities (DLAs) are not technology dependent, nor do they require any specialized technology in order to be implemented effectively or produce positive results (currently they are readily available on the CHC web site). Further, how tablets will influence the "seamless integration between classroom and the Tutorial Center" hangs as an empty claim awaiting some kind of explanation

(even a superficial one). This appears to be a rationale without any rationale. As will be seen, over and over again, in this response there is an apparent belief (though unsupported with any real data or research) that tablets will somehow enhance the effectiveness of DLAs and the Tutoring Center on campus. Apparently, the benefits of a relationship between DLAs and Tablets are obvious to the authors of this proposal, there just isn't any objective research to support that claim.

Given the noticeable lack of any support for this rationale in the proposal, one must wonder why it is even included as a reason to implement this initiative. Certainly, not because there is a significant and vast library of overwhelming research that concludes such a strategy will benefit students. Regardless of the reason for its inclusion in this initiative, it is little more than an unsupported and baseless claim - well intentioned, but empirically irrelevant.

***Rationale: Enhance Learning Environment—We will immediately bring the entire learning environment up to 21<sup>st</sup> century technology standards. This will change the in-class and out-of-class experience for students.***

Although this sounds 'visionary', no definition or criteria for what 21<sup>st</sup> century learning standards & environments actually look like is offered nor even suggested except, apparently, it includes tablets. The idea that the inclusion of tablet technology into a learning environment has only positive implications is, frankly, an oversimplification of how technology enhances learning. Unfortunately, such arguments for the integration of technology into classrooms often occurs when no serious research has been conducted to support appealing, yet unsupported, theories of technological efficacy in learning environments. Rhetorically, such unsupported fallacies are likely best dismissed as *appeals to popularity* or *appeals to novelty*.

The danger of such rushes to judgment and the desire to move quickly (rather than prudently) when integrating technology into learning environments, has been expressed often in recent years throughout serious educational literature. One example of the potential problems associated with such unsupported cheerleading and naïveté' with respect to technology integration efforts is offered by John R. Darkers (2005):

The prevailing model of learning and teaching within the technology education curriculum...makes certain assumptions, and consequently value judgments, about the nature of various technologies in terms of 'fitness for function', and that these functions are seen within a narrow instrumental context. By this I mean that technologies are regarded very much as a means to serve specific ends. They assume an epistemology that is more concerned with the processes embedded within the methods of a technology's production and manipulation, than with a critical analysis of the social consequences that will ensue as a result of the technology's existence. This narrow functionalist model tends, moreover, to be the current dominant orthodoxy. Many students, as a result, when faced with a problem, especially in technology education, attempt to proceed directly from problem statement to solution. ...as a result of this narrow mastery system, students are unable to engage with the social and political ramifications engendered by the proliferation of new and emerging technologies. Thus, they will simply accept the doctrine that the consumption of these technologies will not only improve life, but are in fact to be desired. They will do this because they have effectively been indoctrinated into so doing. (113)

In other words, if existing orthodoxies surrounding technology are not seriously addressed and evolved, the introduction of technology into learning environments can actually result in students becoming less critical thinkers, less questioning of instructor presented data and,

therefore, less ready for success in an society (and world) that increasingly desires workers who can effectively use and evaluate information judiciously.

Darkers is not alone in believing that the haphazard integration of technology into learning environments can have negative impacts on students. Leh, Kouba, & Davis (2005), point out that, even though many really want technology integration into classrooms to be proven as successful, "...few professional literature sources document successful strategies for handheld device use in education and only a limited number of research efforts report on the effectiveness of using such technology."

More recently, but concluding with a similar call for caution, Luppincini (2012), provides an enlightened and experienced view of the imposed integration of technology into college classrooms in an article entitled, *E-Technology Use and Abuse in University Classrooms*. Anyone with a desire to implement real "21<sup>st</sup> Century Technology" into college classrooms on a large scale would be wise to read this perspective on the penchant of many to uncritically see technology as an end-all, cure-all, for the perceived problems facing our educational systems and the ramifications (for educators and institutions) of harboring these misguided beliefs.

***Rationale:*** *Expand Communications—We will be able to leverage the contemporary communication systems (e.g., social media) students use in their personal lives.*

The inclusion of social media into the classroom has also been looked at in recent research, with mixed results. Frankly, this work is still in its infancy, but interesting data have emerged., Prudent investigators in this area of educational research are taking on voices of caution as they learn from their trial implementations. For example, Williams, Lundqvist, & Parslow, (2013) offered the following in their work focusing on integrating social media into the learning environment at the college level:

It is important that the issues and challenges around implementing a new technology are recorded, so that others can learn from both successes and mistakes. It is never enough to believe that if we build it they will come; at points along the way it is necessary to evaluate successes and failures, making informed decisions about whether the system should be enhanced, remain static or be closed down. (671)

In a similarly cautious spirit, Tay & Allen (2011) offer what they learned when designing social media into instruction, "...the effective use of social media depends as much on the design of the assessments, taking into account the difference between reality and authenticity, as on the use of technology itself."

Very recently (August 2014), Hampton et al., found, overwhelmingly, that adults felt less at ease discussing sensitive topics, or to offer their opinions in social outlets (like Facebook) if they were unsure if those reading their comments agreed with them. The 1800+ participant, joint Rutgers & PEW Research Center study raises serious questions about how people use social media, and their comfort level when using it in situations where their opinions may be challenged. The results suggest that many people effectively shut down online. Interestingly, these same people seem to be much more comfortable offering their thoughts in a face-to-face setting (an environment that might be assumed to be more threatening than the virtual reality of cyberspace). The results of this study suggest we, as educators, are far from fully understanding the potential benefits (and detriments) of instructing in the untested arena of social media.

In each of these explorations into the inclusion of social media into the learning environment, it is clear that simply plopping social media technology into a classroom is no guarantee that good student outcomes will occur (nor should educators expect magical results). Indeed, through these studies it becomes VERY clear that the successful integration of social media into learning environments requires careful planning and design to facilitate success. To simply assume that social media will magically transform the learning environment into something more meaningful, more efficient, or more effective is, at best, wishful thinking.

***Rationale:*** *Track Academic Progress—With this approach, we will be able to maintain a dynamic and current student profile for each individual student. The profile will indicate levels of engagement, learning and advancement.*

In other words, we will begin tracking students through their tablets and, apparently, require them to interact with increasingly intrusive data tracking and/or data mining systems. In light of increasingly more common reports of secure data being breached in institutions ranging from the world's largest banks, to smaller retailers, AND this District's newfound desire to partner with for-profit entities and institutions, the lack of discussion in this proposal about how, *exactly*, newly collected student (and faculty?) data will be used and shared is alarming.

As often reported in the media, the arrogance of institutions in regard to the privacy and data rights of individuals they have the ability to collect data from leads to decisions, like those offered in this proposal, to trample on the privacy rights of users with little or no regard for explaining to those users how, when, why, or where their data will be used, sold, or manipulated.

These questions should've been thoroughly answered, in this proposal, but were not:

- What personal data will be collected?
- How, specifically, will this data be used?
- Who will have access to this data?
- How long will this data be retained?
- What opt out options will be available?
- Will those unwilling to participate in data collection be excluded from the program?
- Since faculty will also receive tablets will they, too, be tracked?
  - If so, all of the above questions apply regarding faculty data as well.

It is certainly possible that those developing this proposal simply fell prey to the urban myth that young people (Millennials) are less concerned about privacy than older adults (Baby Boomers and Gen-Xers). A recent Pew report by Madden (2012) suggests otherwise:

A notable portion of those who already restrict access to their SNS profile take further steps to limit what certain friends can see. Some 26% of those whose profile is at least partially private say they use additional privacy settings to limit what certain friends can and cannot see. This finding is consistent across all core demographic groups. (para 2)

Further, online privacy has, apparently, become a significant concern for internet users of all types (Raine, Kiesler, Kang, & Madden, 2013):

86% of internet users have taken steps online to remove or mask their digital footprints—ranging from clearing cookies to encrypting their email, from avoiding using their name to using virtual networks that mask their internet protocol (IP) address; and 55% of internet



users have taken steps to avoid observation by specific people, organizations, or the government. (para 1)

Although I am sure that those collecting data on students believe they will keep student data safe and secure, Thompson, Pettronio, & Braithewaite (2012) found, not only, that those at educational institutions responsible for keeping student data secure cannot be trusted unquestionably, but that double-standards in regard to protecting student data and their own personal data surfaced. Specifically, data gatekeepers understood good data security practice, and judiciously employ those practices with their own personal data, however, they did not, in practice, diligently protect the personal data entrusted to them by their students and their institutions. This, frankly, is a frightening snapshot of the inability of educational institutions to protect student data.

Data privacy/mining is a serious issue, and to flippantly toss out a rationale about collecting student data in ways not thoroughly discussed, explained, and transparently described is unconscionable.

***Rationale: Reduce Busywork***—This infrastructure will allow us to automate many of the tedious activities that currently burn time—test score input, attendance records, Scantron scoring, etc.

Question: At what point in time did evaluating students become a waste of time and busywork? Although all educators desire to be efficient in their practices, it's unclear when efficiency became the holy grail of education. There is little doubt technology can make some tasks more efficient, but there is little evidence that mere efficiency improves a learning environment.

Xi (2010), provides insight into the pitfalls of automating educational tasks:

Automated feedback systems afford efficient, instantaneous feedback and have the potential to transform and enhance learners' language learning experiences. However, it is also important to realize that the accuracy of feedback given by computers, although acceptable in low-stakes practice environments with instructor support, leaves considerable room for improvement... Further, no current research has addressed the stability of automated feedback across performance samples. Finally, the effects of automated feedback on learning, especially over an extended period of time, are under-explored... (298)

Matthews, Janicki, He, & Patterson (2012), found that efficiency does not necessarily improve outcomes for instructors and students, finding, even though automated grading systems increased some feedback from teacher to student, the quality of the feedback was not improved.

Although the idea of improving efficiencies in what might be described as the drudgery of evaluating student work is an interesting concept (others may prefer to call it reflective evaluation) there appears to be very little direct research on the topic. Therefore, the question of whether such automation of tasks improves anything significant within the educational environment remains unanswered. So, though interesting, having efficiency serve as a rationale to support a \$3.5M proposal is a dubious claim, at best...IF the intent is to enhance student success and outcomes.

In today's 'information-race' culture it is easy to think that fast is good, however, fast is not always good. There's a case to be made that reflection and thought while evaluating students might be something other than busy work. Perhaps reflective and thoughtful evaluation is *good practice*?

***Rationale: Integrate Assessment & Testing***—We will integrate student learning assessment into the testing already used in the class. This will streamline work for faculty and generate better learning measurements from students.

I'm unsure what this even means. The rationale is begging for clarification and tangibility.

- Is there evidence that faculty *are not* currently integrating student learning assessments into their learning environments...or merely a suggestion that they do not?
- Will this impose new assessment requirements on instructors, compromising the academic freedom to evaluate student work as deemed most appropriate by the instructor?
- Does this mean that instructors will be pressured to begin using assessment tools they neither need, nor feel necessary/appropriate to evaluate student work and learning?
- Is the purpose of this rationale to fulfill some unrelated and obscure desire for data by those outside of the classroom? If so, to what ends will this comingling of data and assessment be used? Instructor evaluation? Course load? ???
- Frankly, this rationale sounds like the introduction of more work for faculty (not “streamlined” work) as they are ‘asked’ to build assessment tools and practices not because of their own needs but for the needs of others outside of the classroom (this is likely a work load issue better left for contract negotiations than a technology proposal);
- Just who is ‘we’ in this rationale? I’m unconvinced it is students or instructors.

***Rationale: Advance Sustainability***—We will be able to drastically reduce (maybe eliminate) paper-based handouts. Syllabi, agendas, minutes, reports, activities, etc. will be saved to shared drives for all to read via tablet. Much of this is already done through Blackboard, but the tablet will allow for all materials to be accessed directly in class.

Not surprisingly, the siren call for the paperless society finds itself here in this proposal. Though there is a case to be made that a reduction in the use of paper will occur if the college commits many of its materials to digital rather than paper-based products. I do find it awfully hypocritical, however, for an organization that requires me to fill out and sign a hard copy work report each month (that is three duplicated pages), to be so concerned about reducing my paper in the classroom. To believe that having tablets will suddenly turn SBCCD into a paperless organization is simply nonsensical, defying the history and focus of the organization.

Frankly, I am at a loss to see how the most effective way to achieve cost reductions in paper is via a \$3.5M tablet initiative that will only save an estimated \$310K/year. It would be interesting to see the data of paper costs of the college over recent years, since I think it is reasonable to believe that paper consumption has been reduced, over time, as instructors have, indeed, begun using tools like Blackboard. Rhetorically, the ‘impression’ of large savings appears to be used rather than looking at actual data showing trends in usage over time.

The implication of this rationale is that there will be huge cost savings and improved operational efficiencies (sigh). Again, where is the support for these claims? Personally, I make very calculated decisions about what my students receive digitally and in paper form. Those decisions

are based upon experience, research, and sound instructional design practices, not the desire to save a few bucks. I won't repeat the citing of research that indicates reading digitally is not necessary a positive for faculty or students, only reiterate that research does not support the notion that digital texts are some kind of panacea.

Frankly, as this efficiency theme continues to permeate throughout this proposal one must begin to wonder, is this initiative about improving the student experience, or something else? So far, these rationale seem to be very light on the topic of improved learning and improved 'educational' objectives, while a lot is being said about cost savings, and operational efficiencies.

Considering this focus on efficiency and lack of focus on student learning, or success outcomes consider the following data captured from the 20 page proposal:

Efficiency terms:

- 'savings' appears 10 times in the proposal
- 'infrastructure' appears 10 times in the proposal
- 'testing' appears nine (9) times in the proposal
- 'reduce' appears five (5) times, 'reduction' three (3) times in the proposal

Student focused terms:

- 'student learning' appears only twice (2) in the proposal
- 'student learning outcomes' appears only once (1) in the proposal
- 'college readiness' appears only once (1) in the proposal
- 'student learning assessment' appears only once (1) in the proposal
- 'learning measurement' appears only once (1) in the proposal
- 'student outcomes' appears zero (0) times in the proposal
- 'student success' appears zero (0) times in the proposal

As an ex-Dean I can understand how these efficiency items are attractive to administrators but, as an instructor, I'm simply seeing very little upside to this initiative helping students in any tangible way. Certainly, this proposal doesn't find much need for including concepts like *student success* and *student outcomes*, which I consider critical to my role as an instructor.

To complete this critical response to the unsupported (yet popular) urban myth that everything done with technology is more effective and efficient, as a Dr. of Educational Technology, I have to ask how accessing an assignment, in a classroom, on an tablet, is any more effective than presenting the assignment on an overhead? The information is the same, the material can still be accessed through Blackboard later, and rather than waiting for everyone in class to turn on their tablet, open their browser, log in to Blackboard and find the assignment (a horrific waste of time) I can simply give the assignment, or begin going through a handout immediately using an overhead. This is but one example of how technology use might sound good, but can actually be a hindrance in practice. So many nice *sounding* advantages brought to us through technology visions fall prey to this fate because, sometimes new technology ISN'T the best answer. Sometimes, traditional technology (or no technology) is the best answer to solving the problem at hand.

***Rationale: Build Campus Community***—We will be able to build greater knowledge of campus activities and tighter relationships between members of our community.

This rationale promotes the idea that, if students and faculty are given tablets, only increases in positive and useful community interactions between students and others will occur. No evidence to suggest this will be the case is offered.

Ettiene Wenger (1998) one of the most respected voices on community development, theory and understanding (both in education and the private sector) would certainly want to understand just exactly what kind of community practices and impacts are being alluded to here. Tinkering with communities and their boundaries is not something Wenger would take lightly, nor is his work as simplistic as the probable focus of this rationale which is, I think, being able to discuss new things on the college web site immediately because a tablet is in hand, or that communicating on a tablet through texting, rather than a phone, is something *innovative*.

More recently, Wenger et al. (2014), discuss the intricacies and sophistication of communities of practice in many environments by explaining that developing, enhancing and evolving communities is a messy and difficult task. A task requiring intricate dances between new and exiting members of a community to negotiate acceptable (and unacceptable) norms of community membership and practice. Wenger, et al., describe the sophisticated nature of communities and how closely related (but distinctly separate) communities within larger organizational entities negotiate communications with each other:

The notion of a single community of practice misses the complexity of most bodies of knowledge. Professional occupations, and even most non-professional endeavors, are constituted by a complex landscape of different communities of practice – involved not only in practicing the occupation, but also in research, teaching, management, regulation, associations, and many other relevant dimensions. All these practices have their own histories, domains, and regimes of competence. The composition of such a landscape is dynamic as communities arise and disappear, evolve, emerge, merge, split, compete with or complement each other, ignore or engage the other. (15)

Using the lens of Wenger, et al. change agents must understand that communities need time, concerted effort, and an understanding of the dynamics of community practice and evolution in order to evolve into more effective communities. Building closer and more relevant ties between individuals by focusing on community development is an admirable rationale, but tablets are certainly not the missing link to developing a more effective CHC community communication structure (practice) when one understands the complexities of such an aspiration.

In, *Alone Together: Why We Expect More from Technology and Less from Each Other*, Sherry Turkle (2011), describes the isolation technology actually brings to those who believe they have become more social though their increased use of technology. Turkle explains that even though we may have more interactions by virtue of using technology today, those interactions are increasingly less personal, less important, and less intimate than non-technological interactions with other humans. Through both independent studies and her work overseeing artificial intelligence labs at MIT, Turkle describes the lost promise of being ‘more together’ through the use of modern technology...an unfortunate result in an arena that appeared, initially, to be so promising.

Though it might feel good to believe that by simply providing CHC students with tablets the social fabric of the CHC community will dramatically change for the good, such a belief is unfounded

by those who've been seriously studying technology supported environments for years. The effects imposed on communities that integrate technology into their environments are not trivial, and should not be taken lightly. To declare a single technology will transform the CHC community in only positive ways cannot be responsibly claimed when the research focused on the implications technology integration actually imposes on a community remain unexplored.

***Rationale: Eliminate Digital Divide***—The majority of Crafton students are low income. These students are often at a digital disadvantage in comparison to middle and upper income students. This initiative evens the playing field.

The digital divide has been defined in many ways. Often, and as this initiative suggests, the divide is perceived as a socio-economic problem that can be solved by giving technology to those who are poor, thus making things *equitable*. Unfortunately, that train of digital divide thought left the station quite awhile ago. Much of today's research on the digital divide has evolved far beyond simply 'giving people stuff' as a way to solve problems in our culture and education systems.

Rather, much of recent digital divide literature makes it increasingly clear that the benevolent strategies of the past, though helpful and well intentioned, did not (and will not) eliminate the digital divide...not by a long shot. This research has found that simply having technology is not enough, that how one uses technology is a far more significant factor and involves critically addressing issues like technology literacy, user perceptions, and political realities. To believe that distributing tablets will even the digital divide for CHC students is both naïve and, frankly, attacking an outdated perception of the problem. People often joke about how education is always far behind the real world on items of importance. The belief that giving students tablets will solve the digital divide is evidence of just how out of touch and misinformed educators can become.

Min (2010) notes, "the first-level divide was associated with socio-demographic factors, the second-level divide with factors such as motivations and Internet skills...the simple availability of new technology is not enough to encourage the meaningful use of technology...human interest and capacity are equally important."

Gwebu (2011) gives an even more comprehensive definition of the new way in which the digital divide should be perceived and addressed today:

"...digital divide is no longer seen as the simple divide in the access to technological resources, but increasingly it is being perceived as a multidimensional phenomenon that includes a set of complex divides (global, social, and democratic) caused by a variety of factors (digital resources, gender, income, etc.). In line with this evolution, the literature has proposed numerous definitions, which range from simply the 'gap between individuals who use computers and Internet and individuals who do not' to the more comprehensive definition that defines digital divide as 'unequal patterns of material access to, usage capabilities of, and benefits from computer-based information and communication technologies that are caused by certain stratification processes that produce classes of winners and losers of the information society, and of participation in institutions governing ICTs and society.'(27)

To view the digital divide only in terms of who has and does not have technology is no longer the central focus of serious digital divide research. *How* people interact with, and respond to, technology focusing on a number of factors is now the issue of most importance for those trying to narrow the digital divide gap.

Epstein, Nisbet, & Gillespie (2011) point out that how the digital divide is presented to the public, and others, has a huge impact on how communities, institutions, and governments actually try to address the perceived problems of the divide. Notably, they discuss how framing the digital divide *only* through the traditional lens of access and socioeconomics not only misses at least half of the digital divide problem, it can cause significant problems with addressing the issues of technology competence, sophistication, and communication skills that are as much a part of the divide as access to technology is perceived to be.

In light of this research, the too-narrow framing of the digital divide in this proposal may actually increase some of the more sophisticated problems of the digital divide some Crafton students find themselves facing. Current digital divide research suggests that if the perception of the problem is framed as only an access issue rather than a technology literacy issue, any significant, positive impact on the *real* digital divide will likely be left unresolved. There is simply no reason to believe that the methods, strategies, and faulty digital divide perceptions presented in this proposal will overcome the findings of credible research that suggests otherwise.

To claim that Crafton Hills College will “even the playing field” in regard to the digital divide by distributing tablets to students and faculty is simply an unrealistic and irresponsible expectation. To promote that idea without, apparently, taking the time to actually understand current thinking on this critical issue, and without reviewing how research suggests institutions should approach this cultural problem, is simply irresponsible. The digital divide is a real and serious problem in our culture and our educational institutions. To use those on the wrong side of the divide as a convenient prop when trying to build support for an inadequately designed and unsupportable technology proposal is a shameful way to solicit support for an idea, regardless of the intentions of those promoting that idea.

## **Some History on Innovation**

Although the Tablet Initiative is certainly a sexy and innovative *sounding* idea, my experience, and available data, simply do not support the unbridled euphoria attached to this proposal. The initiative intends to float in the rarefied air of innovation - providing a tablet to every student and faculty member on staff is certainly ambitious and may appear cutting edge - but, 20 years ago, I saw many similar initiatives that were focused on campus wide laptop distribution, typically at the high school level. I was fortunate enough to be able to study these initiatives (during the mid 1990s) in my role as a technology mentor and technology grant writer for the Fontana Unified School District (FUSD). Then, with others, and at the direction of senior management, our role was to determine the viability of a laptop distribution program within that District.

At the same time I was researching integration of technology into school wide (and district wide) programs, I also successfully authored several million dollars of technology grants for Fontana schools, and served for three years as a regional and state evaluator for the State's California Technology Assistance Project (CTAP) reading, evaluating, and making recommendations for proposals similar to the CHC Tablet Initiative. Unlike this Tablet Initiative, those grant proposals had VERY rigorous criteria requirements including detailed budgets, detailed three-year plans (with measurable goals & objectives), and data driven strategic rationales.

With this kind of experience, I am dumbstruck by the lack of substance and data supporting the claims and assertions made in the Tablet Initiative. The flawed rationale and lack of data to support the notion that purchasing 6000 tablets and placing them in the hands of students and faculty will promote a quality learning environment is, frankly, shocking. This complete lack of support calls into question the preparation, development, and validity of any assertions and/or claims presented in the proposal. There is certainly nothing innovative about a \$3.5M proposal that offers no research and no data to suggest the proposal will improve student learning or success.

Certainly, as the CHC proposal asserts, there have been other, similar, initiatives undertaken in recent years. Just as certainly, it would be expected that those institutions have developed, aggregated, and presented data that explains how their initiatives fared in the transition from theory to real world practice. Indeed, it would be expected that such results would be prominently and loudly promoted whenever and wherever the opportunity to do so presented itself because the sharing of such data and experience lies at the heart of educational dialog & practice. With that in mind, this kind of experience and academic dialog would typically be of vital importance to any group proposing to implement the scope of dramatic change presented in the CHC Tablet Initiative. Unfortunately, a close look at the contents of the Tablet Initiative can lead to no other conclusion than no such data has been found to support the program being proposed because, if such data was collected, it is conspicuously (and completely) absent from the final proposal.

What is included in the proposal and, apparently, is being presented as supportive evidence of the efficacy of the Tablet initiative are a list of hyperlinks to mostly private universities, for-profit K-12 schools, YouTube videos, and a few community colleges that have embarked on tablet initiatives of their own. It should be noted that after reviewing those 'model' institutions, *none* appear to be engaged in their experiments with tablets on a scope approaching the size and scale of the CHC initiative. And, it is worth noting, finding any data supporting improved student learning, better student outcomes, or any other significant improvement in the learning process at those schools is conspicuously missing from the online pages of these institutions as well.

One can't help but wonder why the tablet distribution models/programs of these other institutions were not vetted, even superficially, in the CHC proposal, rather than merely presenting links to these institutions as some kind of evidence that the CHC initiative was a viable and researched-based proposal...which it is not. Indeed, the presentation of a long list of educational institutions at the end of the CHC Initiative is no more than a misleading prop inferring that the links provided constitute the equivalent of a works cited...which they most certainly do not. Instead, these links lead to nothing more than school web sites and not to the documented evidence of the success of the programs a prudent researcher (or grant writer) would expect to find.

The unfortunate end result of a careful vetting of the Tablet Initiative is the realization that an idea that caught fire, sounded good, and was thought to be innovative turned out to be none of those things. Instead, it appears a grand effort was undertaken to make the idea work regardless of (or in spite of) evidence suggesting it was not as educationally sound as those who championed the idea would like others to believe.

Considering the experiments with similar programs, using similar technology (laptops), 20 years ago, no one developing this initiative apparently stopped to ask why programs like those no longer exist in large numbers. Perhaps, and most likely, they were unaware these programs ever existed. The sad truth about those initiatives is that most (if not all) were abandoned for the following reasons:

- The logistical nightmares associated with administering such programs;
- Insufficient ROI on student outcomes despite millions of dollars invested;
- Disruptions in classroom activities campus wide when infrastructures failed;
- Lack of sufficient funding for technology support staff;
- Lack of sufficient time for instructors to develop effective use of the new technology;
- More clearly targeted technology spending results in more effective outcomes.

Technology innovation comes with a high price tag in not only dollars, but time, ongoing operations, and organizational morale. In schools, the impact of technology on students, faculty, and staff can be either rewarding or devastating. The key to success is thoughtful, informed, and critical evaluations of data and research that leads to truly innovative and thoughtful technology integration programs. This proposal simply does not do these things.

As someone who has written successful campus wide technology grants for millions of dollars, implemented innovative technology programs in K-12 and college environments, and evaluated literally dozens and dozens of technology funding proposals for government entities, I am comfortable in my opposition to this proposal.

After carefully vetting this tablet initiative, I remain steadfast in my initial, instinctual belief that this tablet Initiative was not conceived in a manner that promotes a successful outcome, was not researched in a manner that supports a successful outcome, and was not prepared and presented in a manner that will solicit a successful outcome. This proposal is a bad idea, should be abandoned immediately and replaced with a campus wide discussion designed to develop real solutions to real problems on the Crafton Hills College campus.



## **Final Thoughts**

Although I obviously believe that the Tablet Initiative is not something the CHC community should embrace, what is most concerning to me about the proposal (aside from the lack of a data driven strategy) is the apparent lack of conversations surrounding it. I am certainly not afraid of, nor a stranger to, technology innovation, but that's not what I see in this plan. What I see is a top-down, unsupported, plan designed to walk right into every classroom on the CHC campus, in an attempt to force change in instructional practice without concern for instructor input, without concern for objective research, and without concern for what's best for students. I also see a proposal mechanically designed to restrict discussion and promote unquestioning assent. Finally, I see a plan conceived and designed around the misguided belief that tablets are *the* ground breaking technology device that will revolutionize education, despite evidence to the contrary,

One rhetorical message hovering just under the surface of this proposal is the suggestion that the CHC campus is somehow lacking, that our instructors are not producing quality outcomes, and that our students will be left behind if we don't force them to embrace the technology proposed in this plan (whether they can afford it or not *and* regardless of whether they want it or not). As an instructor who understands technology on many levels, and has numerous experiences with technology integration in many different settings, I am appalled at the, perhaps unintended, but central perspective in the initiative – the belief by casual onlookers outside the classroom that they know what's best to do inside the classroom. I, for one, do not believe that CHC instructors need non-instructors to tell them what technology they should embrace in their classrooms, nor should they stick their hands into students' wallets to impose an unsupported belief onto them about a single technology and it's 'claimed' relationship to their future success.

It was not that long ago that CHC went through the ordeal of having it's accreditation put on the table and questioned. What many seem to have forgotten is that the report did not focus on the classroom as the source of problems at CHC. Instead, the primary focus throughout that report was on issues outside the classroom impacting the overall operations of the campus - the lack of sound fiscal practices (like budgeting and forecasting), the lack of accessible research data, the lack of online student support services, the lack of clarity in district allocations and, especially pertinent to the creation of this proposal, a general lack of meaningful communication between all constituencies on the campus in decision making processes. In other words, it was not problems with instructional practice that put CHC's accreditation at risk, but entities outside the classroom.

The Tablet Initiative is a not the result of a community working diligently to discover and solve problems using technology on campus, but a plan to impose a solution on the campus for problems no one has clearly identified, by a small group that does not come close to representing all of the constituencies on campus in a meaningful way, with the added caveat that many are not instructors. The result of such a small group of individuals essentially uniformed on the particular nuances of individual disciplines is not to create a solution for everyone, but the development of an obstacle for everyone who doesn't see tablets as educational panacea. For example, if anyone had asked the English department what kind of technology they'd like to see in the classroom (and I am in no way speaking formally on their behalf, but do know of some of the desires of the department), one response would've been a couple of computer labs (approx. cost \$150K) that would allow instructors to work with their students while they were writing rather than only on completed drafts and, hopefully, on monitors large enough to be seen from a short distance behind the student...but no one asked. I'm guessing that EMS might like to expand their state of the art labs, maybe not, but someone should ask them what they need (or what best practice might dictate). I have no idea what the physical sciences may find to be useful technology, but I hope someone asked

them as well. Everyone should've been asked, but that doesn't seem to be the case. The point is that the specific needs of every discipline on the CHC campus is unique and what can be helpful for students to succeed, whether the resources include technology (or not) is best decided in close consultation with the educational practitioners (instructors) in each and every area. The arrogance to dictate what technology (or any technology) is needed in any discipline by those outside of the discipline is breathtaking. This is especially true, if no one asked for any input or, frighteningly, hasn't done any research to find out what may (or may not) work.

Early in my teaching career, a trusted mentor told me that if I wanted to be an effective instructor I would need to do more than just demand things of my students. He said I would need to model the behaviors, the love of learning, and the other expectations I would demand of them...to practice what I preached. I've tried to do that throughout my career, and have tried to do that in this response to the Tablet Initiative. To respond to this proposal, I needed to do the hard work and research I did not see in this proposal, to be certain I was not merely making claims without support...something I demand of my students each semester when they develop their research papers. I do not allow them to take shortcuts, I do not allow myself to take shortcuts, and I believe any person (or group) who wants to push anything into my classroom should not take shortcuts when trying to do so. And, if they do, I feel an obligation to challenge them, believing that it is incumbent upon them to prove their case, not my responsibility to prove them wrong or misguided.

Too often, I think, people forget that each and every person on this campus is trying, daily, to produce the kind of quality of which we can all be proud. Titles are not a requirement, nor a prerequisite, to knowing what's the most effective way for employees to do their jobs. Similarly, committees and focus groups have no corner on the market of knowing what is good practice for anyone else by virtue of their charge. Open, engaging, and yes, even confrontational, exchanges are the signs of a healthy and vibrant organization or group, especially on items of importance to the group. The research on that topic is clear and has been for some time (Senge, et al., 1994; Kotter, 2012; Fowler, S. & Blanchard, K., 2013)

Ghandi once said, "Honest disagreement is often a good sign of progress." I have an honest disagreement with the contents of this proposal and felt compelled to respond to it, so I did. My hope is that, by doing so, the CHC community will consider discussing this plan in a manner that the scope of change and price tag demands. If that does not occur, it will be a shame but, if it does occur, I have faith that this community will realize that one-size-fits-all technology is not the answer for this campus and our students, that a more robust and higher quality plan is achievable, and that having as many people as possible at the table is the best way to achieve quality outcomes.

Having completed this response, I am comfortable that I've raised relevant and serious items for discussion as the campus moves forward with not only this proposal, but with any campus wide change initiative in the future. I firmly believe that if the CHC community wants to raise the bar of quality instruction, services, and outcomes throughout this campus, the way to do that is through thoughtful, collaborative, inclusive, and honest campus wide discussions that celebrate our differences as the way we attack and solve problems for ourselves and, most importantly, for our students. Dumping 6,000 tablets into the CHC environment will not accomplish the kind of quality outcomes I'm suggesting here because an organization's people are who change things for the better, not hardware.

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