

An absolutely riveting online course: Nine principles for excellence in web-based teaching

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Abstract: This article explores excellence in web-based teaching. Drawing on the views of experts in the field and the perspective of their own years of experience, the authors compiled a list of 9 principles to provide direction in the search for online excellence. The principles include: the online world is a medium unto itself; sense of community and social presence are essential to online excellence; in the online world, content is a verb; great online courses are defined by teaching, not technology. The list is not intended to be an exclusive set of principles or a comprehensive guide to online teaching. Rather it is a collection of important ideas and suggestions for teaching excellence in the online world.

Un cours en ligne absolument captivant : Neuf principes pour l'excellence en enseignement sur le Web

Résumé : Cet article explore l'excellence en enseignement sur le Web. En s'inspirant des points de vue des experts du domaine ainsi que de la perspective de leurs propres années d'expérience, les auteurs ont compilé une liste de neuf principes offrant une piste dans la quête de l'excellence en ligne. Les principes incluent : le monde en ligne est un univers en soi; un sens de communauté et de présence sociale sont essentiels à l'excellence en ligne; dans l'univers en ligne, le contenu est le verbe; les excellents cours en ligne sont définis par la pédagogie et non pas par la technologie. L'intention de la liste n'est pas de représenter un ensemble exclusif de principes, ou un guide complet de l'enseignement en ligne. Celle-ci se veut plutôt une collection d'idées et de suggestions pour l'excellence en enseignement en ligne.

Introduction

Like many faculties, our online and blended course offerings have increased significantly over the past few years (Ellis & Hafner, 2003; Moskai, Dziuban, Upchurch, Hartman, & Truman, 2006; Oliver, 1999; Orde, et al., 2001; Steinweg, Trujillo, Jeffs, & Warren, 2006). Teachers with little or no online experience have been venturing out of their classrooms and into the virtual world, some by choice; some by assignment. Listen in on the inevitable conversations that result and you are likely to hear a wide array of comments. Some describe the excitement and still untapped potential of online education. Others tend to speak in heavy voices about being overwhelmed by discussion forum posts, deluged by email, imposed on by unrealistic student expectations, and frustrated by mysterious technical problems. Some praise the high quality of the courses they have participated in; some seem to believe that online excellence is something of an oxymoron.

One thing that most tend to agree on is that online education is here to stay. Because of this and because the Dean of our faculty had heard the wide array of views about this field, she came to us and said: "What would you do if I asked you to develop an absolutely riveting online course?" This paper is our response to her question.

Some of the answers came to mind immediately; others came with additional exploration. We drew together the views and findings of many experts in the field and added the perspective of our own years of online experience. We wanted to create a set of principles that would provide guidance and direction for new online instructors and course developers, but also, since quality online education involves so many important elements (Dahl, 2004; Hawkes & Coldeway, 2002; Oblinger & Hawkins, 2006) it is our hope that these principles will be useful to those involved at the administrative and policy-making levels as well.

By absolutely riveting we are referring to excellence; to creating and delivering exemplary online courses. While the concept of excellence can take many forms in today's educational landscape, for the purpose of this article we are considering factors such as sound pedagogy, creating an effective and engaging learning environment, generating meaningful learning experiences and promoting high student satisfaction.

In our view, an excellent online course is one in which the student is able to focus on the course itself and the medium of delivery becomes transparent to this process. It is one that is designed for delivery within the online medium and as such makes sound pedagogical use of the tools available in order to engage and immerse the student in the learning experience. It also creates learning groups, activities and situations that put the students in charge of their own learning. All of this takes place within a supportive and safe environment, allowing them to construct their own understanding of the subject material.

In presenting these ideas it is not our intent to suggest that this is an exclusive list of principles or that it cannot be added to or changed. Measuring quality in the online world is elusive (Oblinger, Barone & Hawkins, 2001) and complex (Alley & Jansak, 2001). As Carr-Chellman & Duchastel (2000) emphasize, there are many perspectives on what constitutes an ideal course. These ideas are not intended to be a comprehensive guide to online teaching or to represent all the principles that must be covered if excellence is to be assured. Rather this list is a collection of important ideas and suggestions relevant to the search for online excellence.

Principle 1: The online world is a medium unto itself.

The search for excellence begins with this principle: The online world is a medium unto itself (Carr-Chellman & Duchastel, 2000; Ellis & Hafner, 2003). It is not just another learning environment, like a separate classroom down the hall; it is a categorically different learning environment. There are vastly different dynamics in online versus on campus courses. To name a few: students review material, read instructions and participate in activities without classmates and instructors physically present. There isn't someone standing nearby to offer comment and clarification. Communication is often asynchronous and commonly in written form. In the classroom, if an instructor is losing the class because a lecture is dragging, he or she can change gears or topics, pick up the pace or suggest a quick break. Not so in the online world. Most material needs to be developed and integrated ahead of time before the course is even offered (Orde, et al., 2001).

As well, the online instructor needs to provide distinct pathways through the material, providing a clear route to those students who either have previous knowledge of the content, or who are picking it up quickly. At the same time there needs to be another pathway that provides more detailed background material for those students who either want or need more information about a particular concept.

Because of the different dynamics, material that works well in a traditional environment does not necessarily work in the online environment (Ellis & Hafner, 2003) and often needs to be retooled, converted or redesigned for online use (Koszalka & Ganesan, 2004; Zirkle & Guan, 2000). Simply taking material that was developed for classroom delivery and directly porting it into course management programs such as WebCT or Blackboard tends neither to be effective nor recommended (Ellis & Hafner, 2003). Even supplementary materials such as PowerPoint™ slides, course notes and handouts usually need to be adapted, with explanatory content added (Ferguson & Wijekumar, 2000).

One of our instructors learned this principle the hard way. Taking advantage of the fact that he was teaching a course in both online and traditional formats, he had the entire onsite version videotaped, with the intent of using the footage in his online course. At the end of the term when lengthy lecture segments were processed into lengthy video segments something became very clear: Even if they have been successful in class, lengthy lectures don't tend to work online.

Once uploaded, the lecture is no longer a "live" presentation with the potential for interaction – questions, further discussion, spontaneous comments, the involvement of classmates, smiles and groans around the room. Rather, the material tends to be more static, reduced to a frame of content; a talking head. Because of this insight, much shorter clips were created, using brief excerpts of important points along with the addition of visual material such as PowerPoint™ slides. The result was much more effective (as indicated by the feedback provided by students).

The retooling and redesigning of course materials often takes significant time (Stephen & Barford, 2005; Zirkle & Guan, 2000). As Sieber (2005) mentioned, this means that faculty members who tend to think that their preparation for an online course will primarily consist of uploading lectures and creating quizzes are in for a few surprises. In converting an onsite course to an online one, Ferguson & Wijekumar (2000) found the preparation of their material to be the most time-consuming part of the process. The online world is a medium unto itself and if instruction is to be effective, material for online courses needs to be developed with the unique strengths and dynamics of the web in mind (Carr-Chellman & Duchastel, 2000).

Principle 2: In the online world content is a verb.

It is reasonable to say that courses tend to be built around content. We take classes in art history, quantum physics – or winemaking – because we are interested in those particular content areas. As well, few people would likely argue with the notion that excellent content is necessary for an excellent course. With that said, however, content alone is not sufficient to result in or to guarantee excellence.

As suggested in principle one, there is much more to online teaching than uploading content. Online instruction involves much more than posting a series of readings or a standard curriculum to a website (Oblinger & Hawkins, 2006; Sieber, 2005). In fact, this is so much the case that we might even say that in the online world, content is a verb.

Rather than merely presenting learners with content, online instruction needs to purposefully and strategically engage learners in activities and interaction (Koszalka & Ganesan, 2004; Sadik, 2004). In their exploration of exemplary online courses Hopper and Harmon (2000) found that subject content tended to be mastered by doing more than by reading or listening. In other words, content was not simply deposited for review. Rather, students were actively involved in it and thereby mastered it.

Oblinger and Hawkins (2006) suggested that institutions wanting to develop and deliver online courses should ask themselves: "Do we confuse providing content with creating a learning environment or delivering a course?" (p. 15). They advised that institutions should be aware that while a course most certainly involves content, it also involves things such as interaction, dialogue, and coaching.

The roles for both students and teachers are changing in the online world (Collins & Berge, 1996; Sieber, 2005) and one of those changes is that the instructor role is moving from provider of content to designer of student learning experiences (Collins & Berge, 1996; Garrison, Anderson & Archer, 2000; Sieber, 2005) and a facilitator who structures a learning environment where students actually contribute to course content (Conrad, 2004; Sieber, 2005). Effective teaching presence includes the design and development of learning activities and the facilitation of both social and cognitive processes (Garrison, et al., 2000). Quality learning experiences occur in online education when strategies are designed specifically to engage the learner (Hawkes & Coldeway, 2002).

We are moving to a mode of learning that is less dependent on information acquisition and is more centered on a set of student tasks and assignments that make up the learning experiences that students will engage in, in order to meet the objectives of the course (Carr-Chellman & Duchastel, 2000). In the online world, content is a verb.

Principle 3: Technology is a vehicle, not a destination.

The array of technological advancements continues to unfold at an ever-quickening pace. We have blogs, wikis, instant messaging, podcasts and streaming video. Once the domain of text-only, chat rooms now link participants with audio and video signals. New hardware permeates both education and popular culture: iPods, pdas, smart phones and wireless hot spots. For those of us who love technology and gadgets it can be tempting to integrate such options into our courses just because they're there (Levin, Levin & Waddoups, 1999) or because they're neat and we've become enamoured with them (Dahl, 2004). It is therefore important to emphasize that an increase in technology does not necessarily mean an increase in learning, and can in fact, lead to an increase in problems (Mandernach, 2006), technology blues and wailing students (Sieber, 2005).

In a description of her evolution as a course developer, Mandernach (2006) candidly described her progression from utilizing basic technology to eventually integrating all the bells and whistles into her courses. Originally her approach was to integrate previously successful best practices but had evolved into a "smorgasbord of jazzy supplements with little thought placed on their value, role and importance within an

education context" (p. 7). Mandernach also discovered that despite the outward, tech-savvy appearance of her course, the pedagogical effectiveness had actually decreased. Not only did student learning not keep pace with her technological advances, but student complaints and difficulties increased and the instructor spent considerable time troubleshooting. Mandernach's course has now shifted to an evolving balance of basics and bells.

Others have come to similar conclusions. In their review of exemplary online courses, Hopper and Harmon (2000) reported that these courses included a judicious selection of technologies. The developers were conservative and prudent in their application of technology and the courses were sometimes even austere. Online educators must be ever critical of the technology relied upon to engage students in learning. It is only through constant evaluation and examination of the tools that we use that we will continue to make sound pedagogical decisions for their implementation. We must also be aware of the ever changing dynamic of our audience. With more and more students being attracted to online courses we cannot simply rely upon what has worked in the past. As with teaching in a face-to-face environment, we need to constantly gauge our audience and discern what tools and strategies are going to be effective at the time.

This is certainly not to suggest that excellence is to be gained by the conservative application of technology. It is the prudent application of such resources that is important. It is a mistake to add bells and whistles just because they're available (Koszalka & Ganesan, 2004; Levin et al., 1999; Mandernach, 2006; Sieber, 2005). Rather, aspects of technology – like all components of an effective course – should be chosen according to how they help meet the learning objectives (Levin et al, 1999). To achieve excellence in online education, these resources must be applied judiciously. In the online world, technology is a vehicle, not a destination.

Principle 4: Great online courses are defined by teaching, not technology.

In describing online courses, many people may tend to first consider technology rather than pedagogy, but excellence in web-based courses is founded on excellence in teaching. The instructors in Hopper and Harmon's (2000) exemplary online courses were competent, highly skilled and diligent. They had a good sense of humour, were excited about their content areas, and had high, clearly articulated expectations. They cared about their students, were confident, fair and were masters of effective feedback. The courses were "not defined by technology but by teaching" (p. 9).

Specific aspects of online teaching that are reported to contribute to enhanced learning and student satisfaction also include: quick turnaround time by instructor on email and assignments (Hopper and Harmon; 2000); frequent and engaged contact and individual feedback (Anderson, 2006); having goals and objectives that are clearly stated (Carr-Chellman & Duchastel, 2000; King, 1998; Orde, et al., 2001; Sieber, 2005) and detailed enough to clarify "what the student should be able to do, the conditions under which the student should produce the desired behaviour and how well the student must be able to perform it" (Ellis & Hafner, 2003, p. 643); great communication skills (Hopper and Harmon, 2000; White, 2000); regular use of student names (Aragon, 2003) and the capacity to be real and genuine (Aragon, 2003; Beaudin & Henry, 2007).

The use of technology, like all aspects of a course (including assignments, activities and approaches to assessment) should align with and stem from course objectives (King, 1998; Oblinger & Hawkins, 2006; Orde, et al., 2001). The learning outcomes are developed first, and then the course is designed and delivered by determining what pedagogical tools will best facilitate student attainment of each goal (Ellis & Hafner, 2003). In fact, a good rule of thumb is to "keep the course objectives in mind, and omit any material that does not support them" (King, 1998, p. 30). This certainly applies to technology. Regardless of how stellar the content or how wondrous the technology, if they are to be excellent, online courses must also involve excellent online teaching.

Principle 5: Sense of community and social presence are essential to online excellence.

Since web-based courses do not have face-to-face contact and the wide array of non-verbal cues that such contact brings (Gunawardena, 1995), they have the potential to become static and impersonal (Zirkle & Guan, 2000). Creating a sense of community is one of the main objectives in any class (Benfield, 2001) and is also an essential part of the online learning environment (Aragon, 2003; Benfield, 2001; Rovai, 2002).

Establishing a sense of community often signals movement to a deeper learning experience (Benfield, 2001). It is through sustained communication that participants construct meaning (Garrison, et al., 2000) and come to a more complete understanding of the content. Indeed it is through such interaction and through attending to the processes of learning and teaching (as opposed to attending only to content) that a deeper rather than a surface approach to learning is encouraged (Ramsden, 2003). Without this connection to the instructor and the other students, the course is little more than a series of exercises to be completed.

One significant way to promote a sense of community is to develop social presence (Aragon, 2003; Rovai, 2002), a concept that has received much attention in the literature (Aragon, 2003; Garrison, et al., 2000; Gunawardena, 1995; Gunawardena & Zittle, 1997; Richardson & Swan, 2003; Tu & McIsaac, 2002). In the community of inquiry model (Garrison et al., 2000) social presence is considered – along with teaching presence and cognitive presence – as an essential element in the educational experience. A simple and useful description of social presence is that it refers to the degree to which someone is perceived as a real person in mediated communication (Gunawardena, 1995; Gunawardena & Zittle, 1997).

Students cannot be left on their own and be expected to wade through massive amounts of content. They need connection, contact and a sense of realness and immediacy (Gunawardena & Zittle, 1997; Melrose & Bergeron, 2006; Rettie, 2003). In short, they need a sense of community.

It is also important to emphasize that community will not happen on its own. Teachers need to work to develop community in their online courses. Without effort and social presence, any sense of community tends to wither (Rovai, 2002).

Social presence and a sense of community are influenced by many things, including collaborative learning activities (Aragon, 2003), enhanced communication (Steinweg, et al., 2006), use of humour (Aragon, 2003), small group activities (Rovai, 2002) and it is an essential part of online learning. It is also not simply enough to create community. Once a sense of community has been established, it is very important to continue

to foster it and encourage the members of that community to participate and support one another.

Principle 6: Excellence requires multiple areas of expertise.

Those new to designing and delivering online courses tend to quickly gain an appreciation for the magnitude of the process. As well as the obvious requirement of excellent instruction, there are also other areas of expertise involved. In support of the instructor is the technical expert who may handle things such as HTML coding, getting the material uploaded and helping with the sorts of questions that invariably arise: Why does the assignment link say '404 Page not found?' Why do the online readings say the links have expired? Why don't the menu bars work on my Mac? As well, there is much input required on matters of course design: what tools, resources, activities and forms of assessment best help students meet the course objectives? How are they best integrated into the course?

The expertise involved in developing excellent online courses is not optional; it is essential. And we either gain those areas of expertise ourselves or we look for help and support. Otherwise, significant aspects of the courses we develop will be weak, and possibly even mediocre.

With the software and course management programs available today it is really quite simple to get content online. But as mentioned above, an excellent course requires much more than making content available to students. This is why some universities and colleges promote the team approach to online course development (Dahl, J., 2004; Hawkes & Coldeway, 2002; Oblinger & Hawkins, 2006; White, 2000). Developing and offering online courses simply requires more skills than are usually found in a single person (Oblinger & Hawkins, 2006) not to mention that in post-secondary education instructors tend to be subject matter experts and not necessarily experts in learning theory and educational processes (Ellis & Hafner, 2003; Oblinger & Hawkins, 2006). As such, a team approach is often encouraged.

Some teams are quite simple and involve two or three areas of expertise: an instructor, instructional designer and an internet/technical specialist (Ferguson & Wijekumar, 2000; White, 2000). In some larger institutions as many as eight experts are involved (Hawkes & Coldeway, 2002). These include content expert, instructional designer, editor, team manager, graphics and media designer, webmaster, library consultant and external reviewer. In some cases, however, this array of experts is simply not available and faculty members must serve in multiple roles (Hawkes & Coldeway, 2002).

Regardless of whether the expertise comes from a team or from an adaptive and ever-learning "lone ranger" the simple truth remains: Excellence in online education requires multiple areas of expertise. A content expert is necessary but not even close to sufficient.

Principle 7: A great web interface will not save a poor course; but a poor web interface will destroy a potentially great course.

In the online world students essentially go to class alone and there is no one there when they arrive. They are not able to turn to a classmate on the first day and say: "Is there a text for this class?" They can't raise a hand and ask the instructor: "What are the assignments?" or "Will we get a syllabus today?" or "Are we required to attend?" In an online course, students need to be able to find everything they need to be successful learners and how to do so easily. Even in well-organized courses it is not uncommon to find out, part way through the course, that one or more students have not found some of the essential information. They weren't just quiet or shy; they were lost.

One thing in particular they need to find is a well-developed and articulate study guide (Carr-Chellman & Duchastel, 2000; Ko & Rossen, 2004). The guide is the student's link to things such as content, assignments, group activities, and is the tool that leads the students through the course. Because students often feel somewhat disoriented at the beginning of classes, they tend to search for and depend on a central document, or syllabus, to explain the entire geography of the course; how to proceed and where everything is (Ko & Rossen, 2004).

The instructor needs to anticipate where students will go wrong or get lost in the course and either modify the course design to minimize these areas or address these questions with tips, Frequently Asked Question (FAQ) areas or other means. They must also request constant feedback from students on the course content itself and draw attention to areas of anticipated confusion or problems. It is not enough to simply inform students of these areas, the instructor must request that students respond once they have found the required information or activity in question.

Principle 8: Excellence comes from ongoing assessment and refinement.

Obviously there is some distance between a course that works and one that is absolutely riveting. Two additional factors that develop the former into the latter are evaluation and refinement: the regular and systematic review of all aspects of the course and the subsequent changes and updates added as a result. Evaluation is essential and should cover at least two important areas: course effectiveness and course efficiency (Ellis & Hafner, 2003). Were the learning outcomes attained (effectiveness) and did the pedagogical tools used in the courses facilitate the attainment of those outcomes (efficiency)? This approach helps achieve what Biggs (1999) referred to as the constructive alignment between the learning objectives and the method of delivery and assessment. Aligning learning and assessment tasks with intended learning outcomes is challenging to accomplish but is an important part of higher education and facilitates deep learning (Houghton, 2004).

Ciavarelli (2003) discussed the issues related to assessing the quality of online materials as well as their usability for the purpose of strengthening future offerings of that course. Ideally assessment should provide diagnostic feedback that helps "the student to improve learning, the teacher to improve the instructional process, and the institution to improve its curriculum, support services, and infrastructure" (p. 16). Indeed, continuous evaluation of student learning and the openness to refining objectives, content and use of technology are all elements that must be considered in course development (Ferguson & Wijekumar, 2000; King, 1998).

There are many ways in which feedback can be collected from within the course: discussion forums, feedback assignments, daily or weekly reflections, journaling assignments and, of course, formal course evaluations. Assessing these types of interactions and commentary through the use of qualitative criterion-based methods is essential in ensuring that the course is meeting the desired learning outcomes and helps facilitate constructive alignment (Biggs, 1999). By attending to the issues raised by students the course becomes much more organic and better able to adapt to meet the specific needs of a group of students. Assessment is particularly important in an online environment because "educational technology expands more rapidly than anything else that we have encountered and can morph into educational forms that we

have not encountered" (Moskai, et al 2006, p. 29).

Principle 9: Sometimes the little extras go a long way.

There are a few things that some online instructors/developers provide that can go a long way with students. One is to provide exemplars of the course assignments. Students don't tend to have the same opportunity to clarify assignments, and quell that pre-assignment anxiety as onsite students. Discussion forums, specific to the assignments can be set up, and these help, but exemplars provide much more specific direction. At the very least, detailed rubrics that outline the methods for evaluation will help to reduce the anxiety that students have.

As well, brief guides and tutorials placed throughout the course and designed to help students with the skill necessary in order to make the most of an assignment or activity can go a long way to reducing student stress and increasing the quality of the work they produce as well. Perhaps the most common of these provide direction on being effective self-guided learners. Unless the students in an online course can manage their time and provide some degree of self-motivation, they tend not to do well in a virtual course environment. There is a wealth of articles and resources that can be supplied in order to help students find a rhythm that works for them. Many college and university websites offer student guides to help them be successful in taking online courses. Examples are listed in the Appendix at the end of this article.

Brief personal email messages are also appreciated by students (Whipp & Schweizer, 2000). Those who begin courses with very limited discussion forum activity often respond very positively to short queries about their activity level and "friendly" reminders of the course expectations. Also, setting calendar reminders to help keep students on track can also go a long way to easing stress.

Another little extra is the inclusion of brief audio clips. There is something particularly connecting and compelling about hearing a voice. This seems to be especially so when the audio segment is directed specifically to the students as opposed to being a recorded lecture segment (Aragon, 2003). "Hello everyone. I've just finished reading all of this week's posts and I must say I'm delighted at the level of thoughtfulness you've provided and at the support you've given to each other..."

The integration of audio helps create social presence by reflecting the emotions and establishing the friendliness of the instructor to the students (Aragon, 2003). These verbal segments can vary in complexity from edited podcasts, complete with musical introductions and RSS feeds, to simple audio clips that are recorded on a computer and uploaded as an attachment (Beaudin & Henry, 2007).

The integration of related video material also provides another little extra, especially for those students who tend to be auditory or visual in nature. Many online courses are extremely text heavy and instructors need to understand that this is often intimidating for students. Many instructors attempt to reduce confusion in the absence of verbal discussion and clarification by providing more resources and background reading material for each topic. This may only serve to exacerbate the problem.

Of course, the inclusion of additional resources in websites and online courses requires an understanding of the issues of fair use and copyright (Pitler, 2006). Many resources are protected and cannot legally be used without permission from the copyright holder. Fortunately for educators many other resources are available via a Creative Commons license. Creative Commons is a relatively new way of addressing issues of copyright, where creators of content may declare their work as having "some rights reserved" rather than "all rights reserved". As such, many resources are becoming available to share and reuse legally. Creative Commons is recommended as a powerful new tool for educational activities (Pitler, 2006). See the Appendix for links to further information.

Adding little extras to courses can include things such as exemplars, rubrics, guides, tutorials, personal email messages, calendar reminders, audio clips and video segments. These additions, and others like them, often go a long way in contributing to student satisfaction and learning.

Conclusion

As advancing technology leads to developments such as course management systems (i.e., Blackboard and WebCT), simplified web authoring software and one-click uploading, getting course material online and accessible to students has become a relatively simple and easy process. But getting material – even outstanding material – online in no way guarantees that a course will be excellent. There are factors unique to online education that must be taken into consideration if any course is to have the potential to be excellent.

It is not sufficient to be a content expert. Nor is it sufficient to be "tech-savvy". It is not even sufficient to be an excellent traditional classroom teacher. Because the online world is a categorically different environment a particular blend of skills and knowledge is necessary if success is to be found in this domain. Based on our review of the literature and our own online teaching experience this blend includes an understanding that the online world is a medium unto itself and that the delivery of content requires action; that technology must be used wisely and that a sense of community is essential; that many areas of expertise are needed and that an effective web interface must be provided; that ongoing assessment and refinement must be carried out, that little extras often go a long way, and that while technology is the vehicle for online courses, that vehicle is driven by good pedagogy. Knowledge and understanding of such principles can help us find success in the exciting world of online education, and can help us move from the mere uploading of content to creating absolutely riveting online courses.

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Appendix

Being Successful in Online Courses: Links to Online Resources

Grossmont – Cuyamaca Community College District: Tips for Online Success: http://www.gcccd.net/online/tips_success.htm

UMBC: Tips for Online Success: http://www.cps.umbc.edu/aps/Tips_for_Online_Success.asp?SnID=2

Ivy Tech Community College of Indiana: Success Tips for Online Students: <http://www.ivytech.edu/distanced/education/orientation/resources/success/>

EDUCAUSE Quarterly: How Students Develop Online Learning Skills: <http://connect.educause.edu/library/abstract/HowStudentsDevelopOn/40009?time=1189404960>

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