

Disaster Preparedness: Wimba's Guidance for Contingency Planning in the Case of an H1N1 Pandemic at your Institution

Overview

In response to the large number of Wimba customers that include the Wimba Collaboration Suite as part of their H1N1 Pandemic Preparedness plans, Wimba is issuing this set of guidelines to ensure teaching and learning is available to the maximum number of faculty and students at your institution.

We certainly hope that your campus is not affected by the H1N1 virus during the 2009/2010 academic year but should your campus, or part of your campus, need to close for any period of time we would like you to be prepared.

Although this document outlines Wimba's guidance for our standard hosted customers, we strongly recommend that self hosted or customers who have purchased dedicated hosting from Wimba, also follow these guidelines for optimal effectiveness.

Note: in this document, we refer to course or learning management systems as LMS/VLE (Learning Management System/Virtual Learning Environment).

Our assumptions

Wimba's recommended approaches are based on three important assumptions.

1. **We want to provide suitable teaching and learning functionality for as many faculty and for as many students as possible.** This document will therefore outline best practices that maximize the number of users.
2. **We recognize that not all online tools are optimal for all courses,** and that the best practices below may require changes to a faculty member's preferred teaching methods. However, as noted, we are making these recommendations to support your ability to scale quickly as large a user-base as possible.
3. **We anticipate that the use of the Wimba Collaboration Suite, as outlined below, will arise quickly, will be in place temporarily,** and that, once the crisis is past, you will return to your standard approaches for teaching and learning.

Usage scenarios

Wimba's recommended best practices cover the following two scenarios:

- Lecture-based courses
- Discussion-based courses AND critical faculty/staff meetings

We recognize that courses often do not conveniently fall into lecture and discussion categories, but are often a combination of both. We also recognize that there are

practicum-based courses, as well as a number of other approaches. Given the criticality of continuing instruction during a crisis such as a potential H1N1 pandemic, however, we urge faculty and staff to organize their courses—if only on a temporary basis—into one of these two categories. This will not only maximize the number of potential users on the system, it will also create an easy-to-understand and easy-to-follow model for faculty and students.

In this document

This document includes the following topics:

- Lecture-Based Classes
 - Discussion Classes
 - How Wimba Manages Capacity
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Lecture-based Courses

Strategy: Use Wimba Classroom

The strategy for lecture-based courses is to deliver courses asynchronously (i.e., not live) using MP3 or MP4 files created from Wimba Classroom.

What this means

Rather than adding large numbers of faculty teaching live classes using Wimba Classroom, we recommend instructors record their lectures using Wimba Classroom's archive functionality, create MP4 files from these archives (a very simple process done inside Wimba Classroom) and sent to a distribution point for students to access. These distribution points can include iTunes University, YouTube, Facebook, or another location the institution uses to provide MP4's/videos to students.

Advantages of this approach

While this approach does not make use of the live functionality of Wimba Classroom, it has a number of distinct advantages, including the following.

- For instructors not currently using Wimba, this approach will provide the easiest transition. They will not need to master best practices to manage interaction with a live audience. With a minimum of start-up support focused on features like recording and publishing, instructors can use Wimba Classroom's archiving and MP4 capabilities as a ubiquitous tool for "lecture capture-lite."
- Similarly, students don't need to "find" their new virtual classrooms. Instead the student body can be directed to a single distribution point to view or download the MP4's.
- If either faculty or students are ill, this approach provides more flexibility in continuing the teaching and learning processes. Faculty can prepare courses at times that are appropriate for them, giving them flexibility if they are ill or need to care for sick family members. Students can review the archives at times that are flexible for them: if classes were held live using Wimba Classroom, there is every chance a student who is ill might miss that class, just as they would a class taught on campus.
- It makes lectures available in a portable, industry-standard format that can be viewed on nearly any PC or mobile device, regardless of internet connection speed or processing capability.
- It limits the number of end users using Wimba Classroom at any given time. Since many or all of our customers will need to take advantage of Classroom in the event of a pandemic, this approach allows institutions to scale very quickly for a maximum number of users. Please see *How Wimba Manages Capacity* at the end of this document.

Recommended process

The table below describes the process Wimba recommends that institutions follow.

Stage	Who Does It	Description
1	Instructors	Create complete archives of lectures using Wimba Classroom by <ul style="list-style-type: none"> • Preparing a lecture • Entering a Wimba classroom (without students) • Turning the archive feature on • Delivering the lecture • Turning the archive feature off
2	Instructors	Create an MP4 file from the archive
3	Instructors	Upload the MP4 files from Wimba Classroom to an institutional distribution point
4	Students	Download the MP4 files from the institutional distribution point and view.

Creating MP4 files

View a short instructional video to see how in three easy steps MP4 files are created with Wimba Classroom 6.0. Available online:

http://www.wimba.com/services/admin/mp4_archive

Accessing the MP4 files

There are three common ways to make the MP4 files available for students. We have listed them in descending order of preference, with Wimba's preferred approach first.

1. **Recommended: Offload to an institutional distribution point:** If an institution uses iTunes University or another means of distributing MP4s from other sources, we strongly recommend that they use this same model for distributing MP4s produced from Wimba Classroom archives. In this case, the institution should ensure that faculty understands the procedure for uploading the Wimba Classroom MP4 to the distribution point. This also has the advantage of distributing user activities across a wider area: options 2 and 3 below result in increased load on either the Wimba servers or the institution's LMS/VLE.
2. **Download to your LMS/VLE:** If your LMS/VLE is capable of storing and making MP4s available for students, this is another option. It is a logical place for the students to go. However, your institution needs to be sure that the LMS/VLE

has both the storage and the computing power necessary to handle the influx of MP4s and students who will be downloading them. Also, if not all of your institutions courses have a course in the LMS/VLE, this may add to the institution's workload: creating areas to store the MP4s, training faculty and students, etc.

3. **Keep the MP4s in Wimba Classroom:** Wimba Classroom has the ability to store the MP4s, and it will even regenerate MP4s from archives on demand, and invisibly to the user, should an MP4 be deleted for any reason. This has the same disadvantages as the LMS/VLE: if every student goes to Wimba Classroom to retrieve archives, this could have a significant impact on performance and the time it takes to download. If students are not familiar with Wimba Classroom, this may lead to increased training and support requirements.

Monitoring and capacity

Wimba continuously monitors the availability and system level performance of all ASP Hosted environments. In the event that a rapid increase in resource utilization on a single Wimba Classroom environment begins to affect other Classrooms on that shared environment, Wimba Hosting may request a brief service outage outside the normal Scheduled Maintenance Window to transfer that Classroom instance to a server with more available resources.

Maximum capacity can be achieved with a combination of the lecture capture model and offloading MP4 download to an institutional distribution point. We recognize that a plan that depends on a sudden shift in end user behavior can be a challenge to implement. If an institution elects to utilize the lecture capture model, Wimba can assist with policy enforcement by temporarily reducing the allowed number of participants in a single room, thus maximizing performance.

When to implement

Contingency plans that depend on a sudden shift in end-user behavior, whether changing usage patterns with an existing tool or adopting a new tool, can present a challenge to activate. Institutions can mitigate these challenges by:

1. **Documenting Contingency Procedures:** Contingency procedures should be documented in a clear, concise manner and provide specific workflows to follow. Step-by-step documentation is a good start, and can be augmented by MP4 videos demonstrating best practices.
2. **Encouraging Users to Test Procedures:** Just as a fire drill or test message from a mass communication tool can help to familiarize users with what needs to happen during an emergency, a walkthrough of creating an MP4 archive or initiating a Pronto (or other Chat) group chat can bolster emergency preparedness and alleviate confusion in the event of a pandemic. Wimba has produced an example video (in MP4 format) that can either be used for training or that can serve as an example for producing your own personalized instructions.

- 3. Integrating Procedures into Standard Practices:** Users able to gain familiarity with procedures and the associated tools during normal day-to-day operation are likely to be more successful using them than those who must learn them under the additional stress of an emergency.
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Discussion Classes

Strategy: Use Wimba Pronto and/or Wimba Voice

For discussion-based classes, Wimba recommends using Wimba Pronto and/or Wimba Voice. If the institution is an existing Pronto customer, they can easily create group chats, which can take advantage of audio (for the basic version of Pronto), as well as video, application sharing, and a sharable white board in the full version. If the institution is not a Pronto customer, they can purchase it and be up and running in a matter of days. If they are a Blackboard customer, they can download the basic version at no charge.

If the institution is an existing Voice customer, they can use the Voice Board feature to carry on asynchronous audio discussions, where each student can participate by adding their own voice response to a discussion thread.

Faculty and students find the interface of Wimba Pronto to be simple and intuitive. With a few simple instructions on how to download the client, they should be able use the product immediately. In addition, Pronto is integrated with the class rosters in your LMS/VLE, so students and faculty with a course set up in the LMS/VLE can find each other easily.

Faculty/Staff Meetings: Use Wimba Pronto

For meetings involving faculty and staff that are necessary to managing the institution through the pandemic, Wimba recommends using Wimba Pronto. See the above topic for options on accessing Pronto if you are not a current customer.

How Wimba Manages Capacity

Most of our customers have licenses that allow faculty, staff, and students in their institution to use their Wimba products. Consequently, they may assume that the easiest way to take advantage of these products in the event of a pandemic is to let all faculty and students use the product. While this poses no issue from a licensing perspective, it will almost certainly lead to scalability issues for our hosted customers.

Like all hosting vendors, we provision based on current or expected capacity. We monitor activity, and we add the necessary hardware, data center space, bandwidth etc. as needed as our customers increase usage. This helps us manage our costs and helps us keep our prices reasonable and competitive for you. Your institution quite likely does the same thing for applications you host yourselves: you build out your computing capacity based on anticipated load—often with some margin on top of that, but usually not support maximum theoretical capacity.

In normal conditions, our customer's capacity needs grows in predictable patterns as the use of Wimba spreads through the institution. In response to this, we can and do add computing power and provision new servers. In the normal course of business, we monitor activity, and may suggest solutions, such as Dedicated Hosting to customers whose capacity needs are increasing significantly.

In a pandemic situation, most or all of our customers could be impacted in a very short time window. By the time we provisioned the servers to meet this usage spike, the crisis may well have passed. After the crisis the excess capacity would cause customer costs to increase.

By recommending using the MP4 functionality of Wimba Classroom, and the discussion capabilities of Wimba Pronto and Wimba Voice, we are not attempting to abrogate or avoid our contractual obligations to you, we are recommending a solution that addresses the reality of the situation: if we find ourselves in a true pandemic, institutions will need the means to continue their mission of educating their students, and they will need these means immediately and on a massive scale.

The solutions recommended in this document represent Wimba's considered and best guidance to the potential of a pandemic. We have considered and decided against options that would mean significantly higher fees to our customers: it is not our intention to use a potential global disaster as an opportunity to increase revenues from our valued customers when they are at their most vulnerable.
