The Gong System



David Rossiter Gibson Lam

What is Gong?

- A web board is a system where people can leave messages through the Internet
- Gong is a system which lets you set up one or more web boards – for example, you could set up a web board for every class you teach
- Students use their browser to access the boards
- Can record and playback text and/or voice
- If you want, you can put the Gong system on your own computer complete control

Why the Name 'Gong'?

- Cantonese 'gong' means 'speak' 講
- English a gong is a musical instrument that makes a big sound

• Nice hard sound, easy to remember

Gong - People



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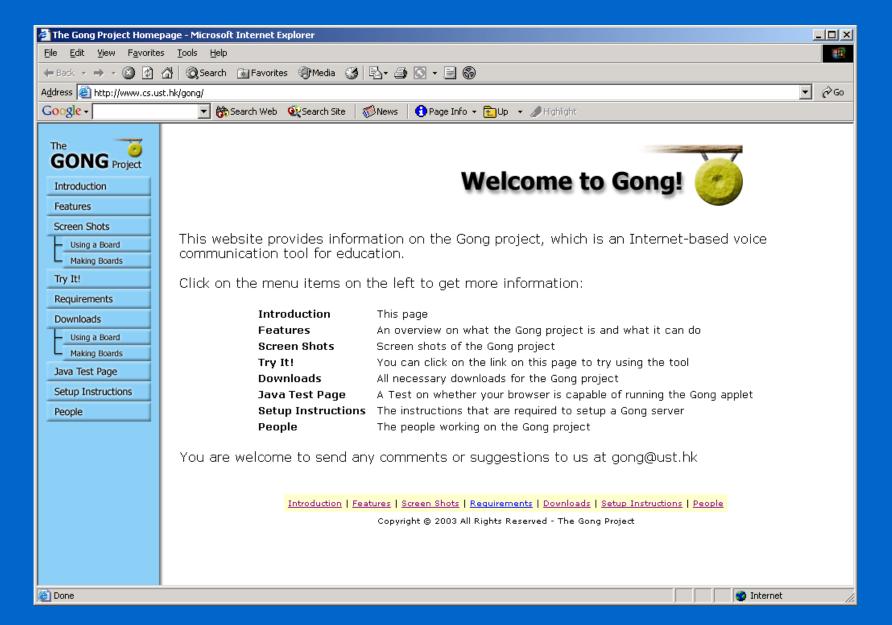
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Supporting Web Site

- Web site at http://www.cs.ust.hk/gong
- Everything needed to get going with Gong
- Software available for download
- Clear instructions, many screen shots

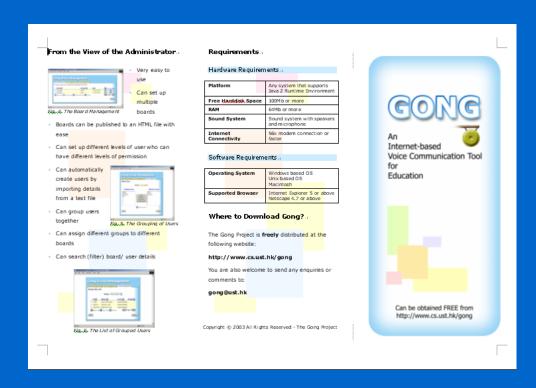
• FAQ and complete source code to be released on the web site within a week

Supporting Web Site



Gong Leaflet

• If you just want a printed overview a simple leaflet is available at the web site



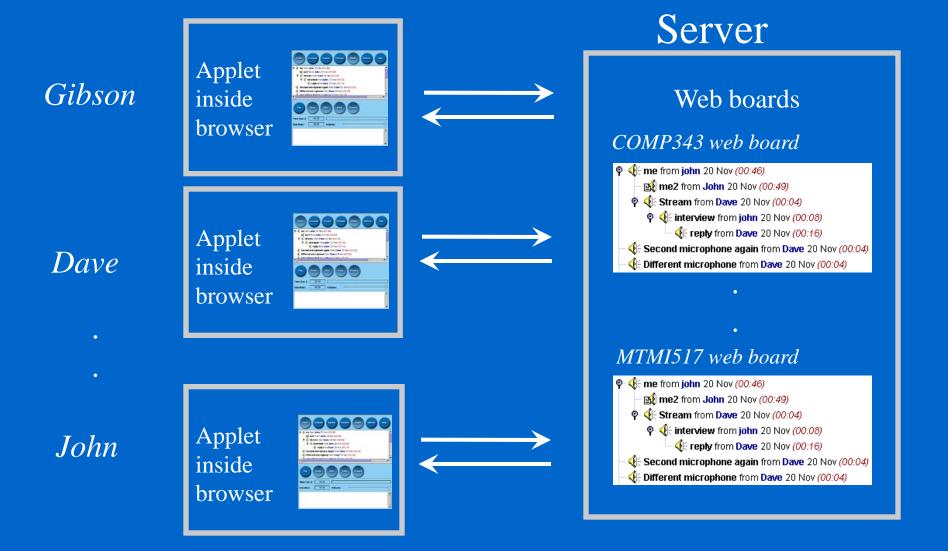
• Handed out at the World Conference on Computer Aided Language Learning, Banff, Canada, May 2003

Gong – Two Areas

- You can think of Gong as having two 'areas'
- One area is the Gong server
- All the messages (text/ audio) get stored here

- The other area is the student machines
- Students use their browser to access the server

Basic Operation of Gong



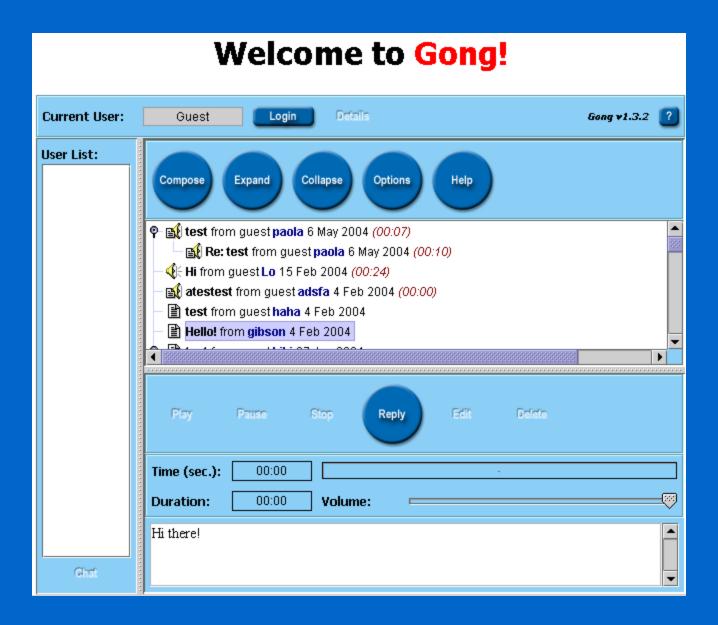
• All communication goes through the server

Quality of Audio Recordings

- The user can select the quality of the audio recording in a message
- With the best quality, only a short message can be recorded
- Choose poor quality if you want to have a long message



Demonstration



Gong Server Installation

- One installation can provide the base for many chat rooms
- Someone else may have already installed it somewhere you could simply use their system and add classes to it

Where Can I Install the Server?

- Basically, the Gong server can be put on any system
- It needs Java and a special library called JMF (Java Media Framework) which handles the transmission of multimedia

What About the Students?

- To use the browser to access Gong, students also need Java and the JMF library
- These are easy to download and install

Gong Communication

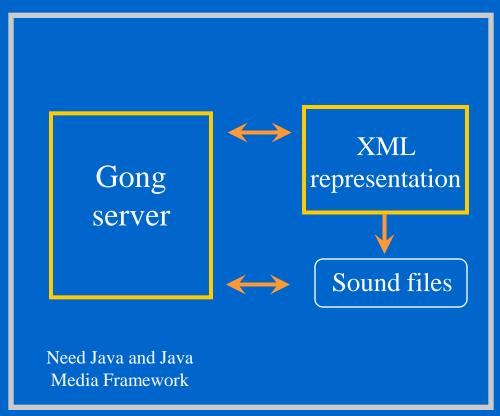
(Just one student shown using the board)

Client *n* Server

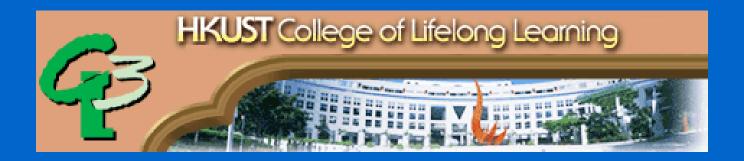


Client sends
request
i.e. play
soundfile

Server sends audio stream



Real-life Testing - Dec 2002



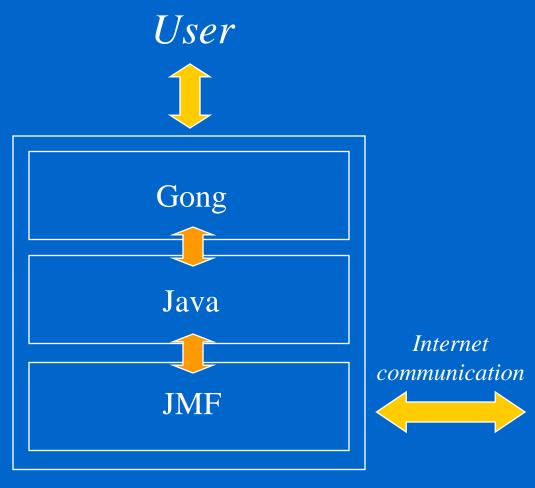
- Gong was tested with CL3 students, on campus, in an ITSC lab environment
- For all 50 students the system worked perfectly
- However, this was a controlled environment (ITSC Barn A teaching room)

Real-life Testing - April 2003

- Gong was tested with students on a distance learning course using their home computers
- These were 'real world' environments students may have any possible configuration
- Out of 70 students, there were 10 students who had problems successfully running Gong

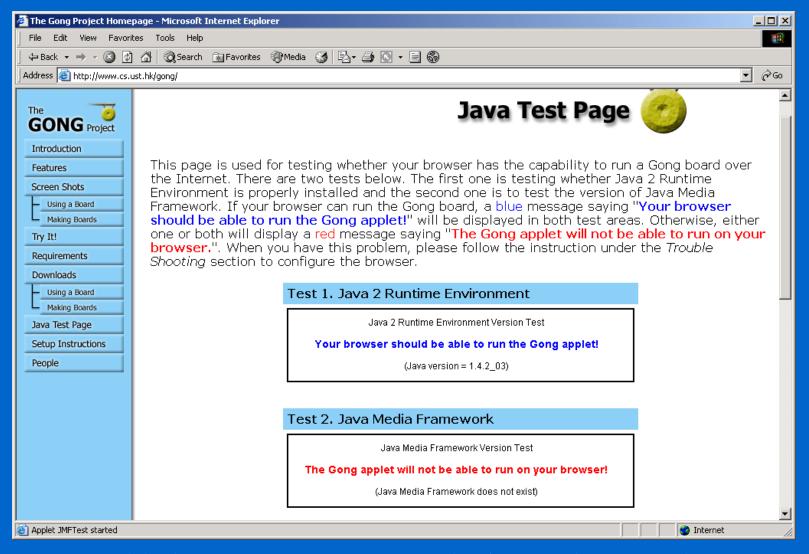
Problems Encountered

- One problem was the library code used by Java for sending and receiving information does not work consistently
- Also, a Java library sometimes cannot be correctly installed



The user's computer

Java Test Page



 We added a test page to our web site so that people can check their software environment

Current Situation

- There are two possible approaches:
 - 1. Create our own code to replace the bad code which others wrote
 - 2. Create an *application*, not an applet
 - An application can have exact control over the Java environment
 - Hopefully will be released within a few weeks

Gong – Real-time Discussion

- We added a feature so people could also do synchronous (real-time) audio and text chat
- The audio and text can be automatically recorded and put into the board as messages
- Students or teachers can then reply to/ annotate the messages

Online User List

 A user list can be used to show who is currently logged on to the board

• You can select who you want to talk to, and then press 'Chat' to talk to them in real-time

User List:

🧸 dave



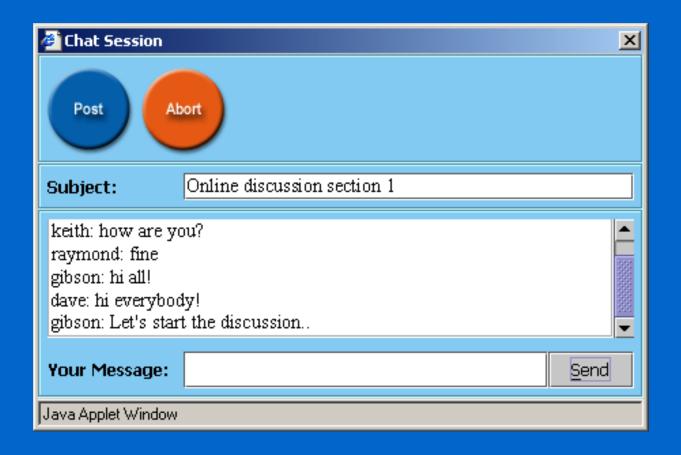
🧸 john

备 keith

raymond



Real-time Discussion



Real-time Discussion

- The speech in a real-time chat session is recorded separately for each student
- Then the teacher can choose to listen to the recording of the students one by one

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Assignment marking from host gibson 14 Apr 2003 (00:46)

Stream 1 from gibson 14 Apr 2003 (00:42)

Stream 2 from Dave 14 Apr 2003 (00:43)

Stream 3 from anthony 14 Apr 2003 (00:40)
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Current Situation

- Again, we have had problems with the Java support
- Currently, this feature has been relegated to unsupported status

Administrator Support

• There is a strong level of support for the administrator (i.e. the teacher)

Gong Administrative Structure

Administrator

Power user



Tutor



Member

Can do anything.

Can add and delete a board. Can edit the properties of any board. Can't create any accounts.

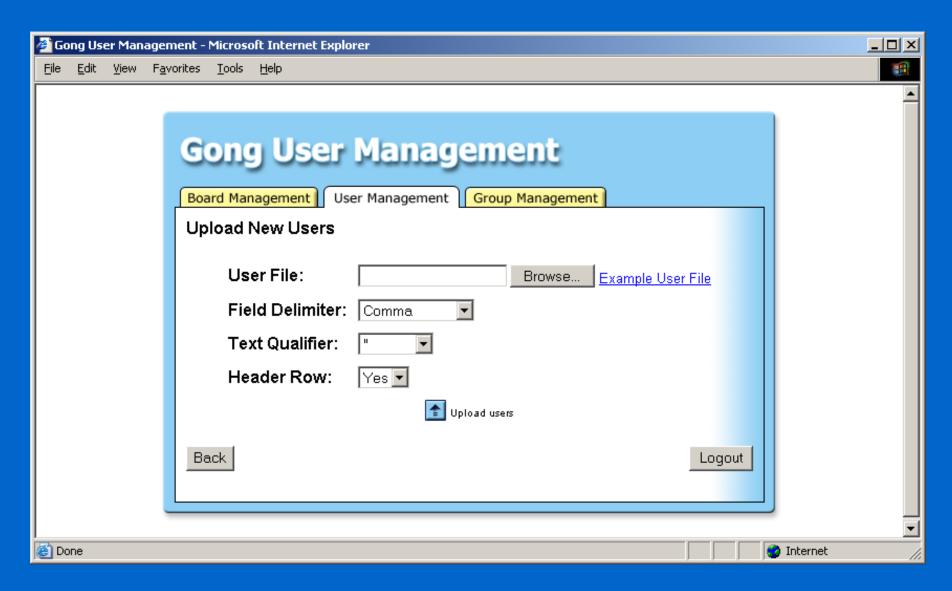
A teacher. They use the system, and can go to the administration area to see all the details about the board. They cannot change any properties.

A user e.g. a student

Import of Student Details

- A teacher doesn't want to type in all students details into the Gong system one by one
- A user import function was developed
- Student details in a variety of formats can be automatically imported into the system
- Takes a few seconds to import all student details for a class

Import of Student Details

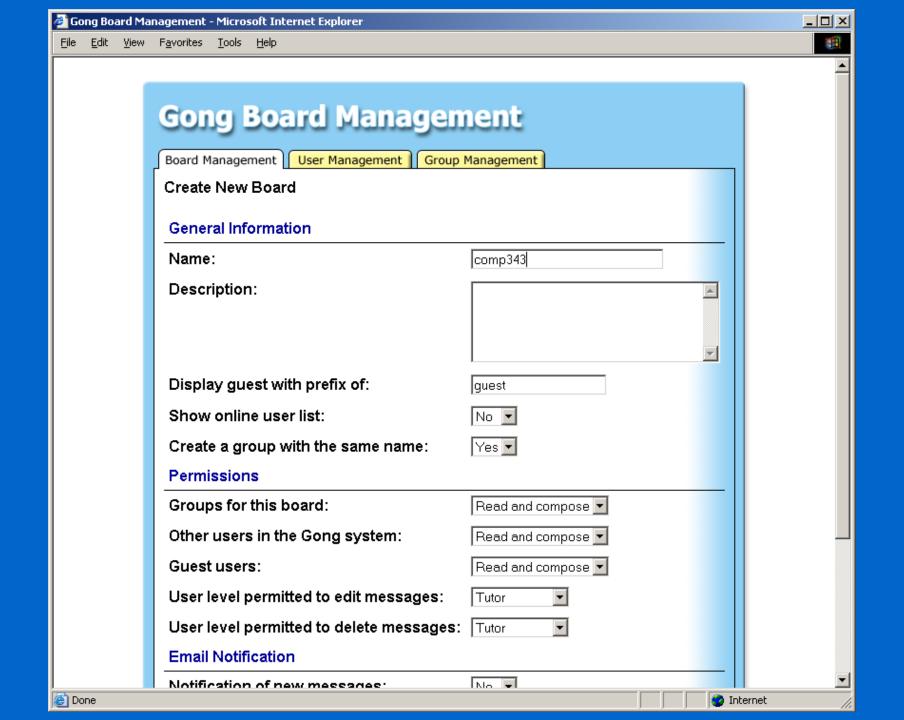


Various Access Permissions

- Any teacher/student can register as a user in the system with different access levels
- They can change their user details easily in the discussion board and the admin module
- If desired, a board can be setup such that only the teachers can delete a message or edit the content of a message

Access Permission

- Board access is controlled for three different classes of users:
 - Guest user
 - Registered user
 - Registered user in the groups of the discussion board
- For each class of users, the access level can be selected from:
 - Not authorized
 - Read-Only
 - Full Access



End of Talk

• Thanks for listening!

• Any questions?