

Chapter 9: Groupware

Groupware: IS that provides functions and services to support the collaborative activities of workgroups. (Workgroup productivity software)

E.g. Lotus Notes (Lotus notes: developed by Lotus, now part of IBM), Groove (peer-to-peer, i.e. communication without going through a server), Office XP, MS Explorer.

Classifications of groupware

1. Team Dynamics

- Group scheduling
- Electronic Meeting
- Video Conferencing
- White Board

2. Document Management

3. Application Development

- Workflow automation

Benefits of Groupware

- Work flow improvement (document sharing, productivity, facilitate teamwork)
- Time shifting (may not be able to work at the same time, particularly important in the context of multinational enterprises, convenience)
- Location shifting (many offices, home vs. office work, mobile computing, MNE, cut down cost, convenience)
- Improved communication through computer mediation (more accurate, time saving, cost reduction ...)
- Organising, indexing, storing and finding information (provide a better way to manage information)
- Sharing hardware resources (early day benefit of groupware: storage, processing power, but now network software can also take these functions)

Asynchronous Groupware (Non-real-time)

Asynchronous groupware: IS that supports workgroup communication even if users are not at same time.

- Email: communication intended for small groups.
- Newsgroups and mailing lists: similar to email except they are intended for large groups.
- Workflow systems: allow documents to be routed through organisation through a relatively-fixed process.
- Hypertext: A system for linking text documents to each other
- Group calendars: scheduling, project management. Solve conflict of meeting time; find alternative meeting time and locations.
- Collaborative writing system: allow multiple users to edit documents.

Synchronous Groupware (real time)

- Shared whiteboards: allow multiple users to view and draw on a shared drawing surface even from different locations to work collaboratively with visual support.
- Video communications: allow two-way or multi-way communication via video, i.e. users to see each other via live video.
- Chat systems: write messages in real-time in a public space.
- GDSS: brainstorming critiquing ideas, voting, prioritizing, organising.
- Multi-player games

Groupware Design

Some issues:

- Organizing and scheduling for groups is more difficult for individuals.
- interface style
- The length of time users have been in a group affects the communication patterns i.e. communication patterns change over time.
- dynamic and roles change during group interaction
- long-term development
- Software modification can be difficult as it affects more people.
- Testing can be difficult as it affects more people.

Some characteristics of a successful groupware

1. Gaining Adoption and Acceptance:

- Interoperability: i.e. systems that are not compatible with other systems will not receive much customer support.
- Perceived benefit: i.e. all workgroup members have to contribute to the system to maximise the benefits of a groupware. I.e. free-rider issue.

2. Avoiding Abuse: minimise spam, violation of privacy, violation of workgroup regulations.

3. Minimising the Commons problem