

CHAPTER 9:

Collaboration and Social Media Participation

*Designing the User Interface:
Strategies for Effective Human-Computer
Interaction*

Fifth Edition

Ben Shneiderman & Catherine Plaisant

Characteristics and examples of collaboration and social media participation

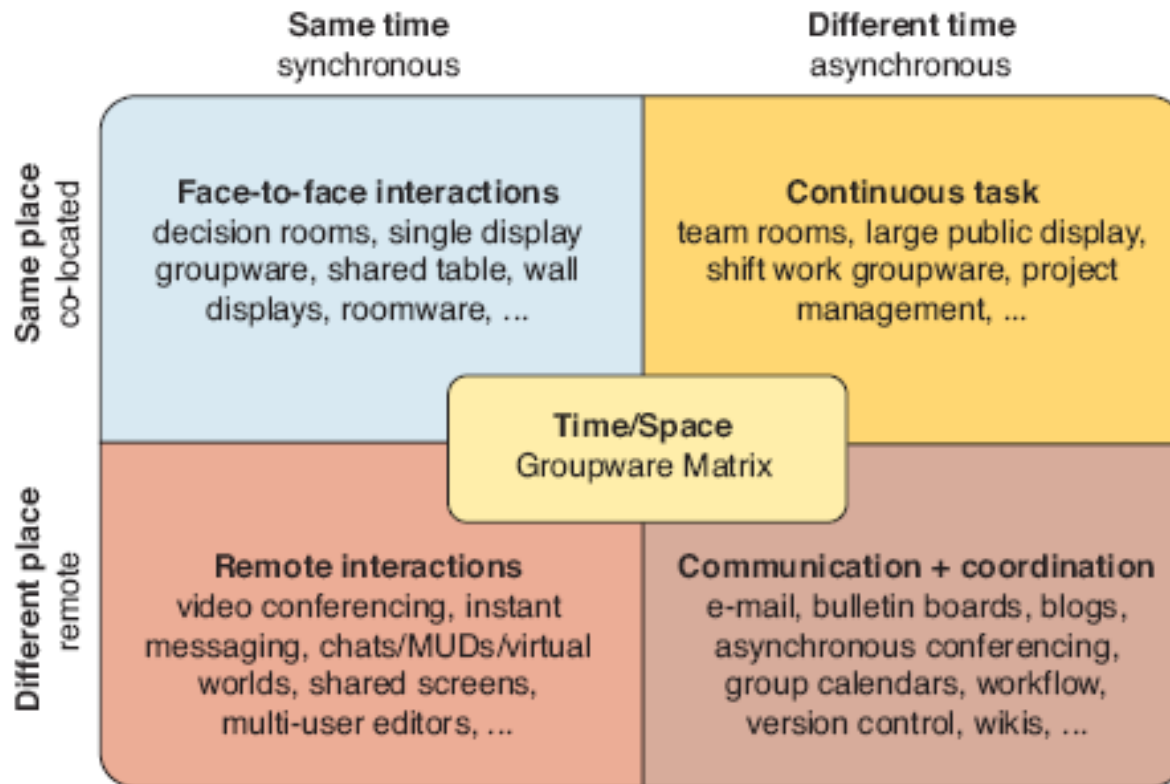
Collaboration	Crossover	Social Media Participation
E-mail, phone calls, audio- and videoconferences, shared documents, collaboratories	Wikis, blogs, chat rooms, instant messages, short messages, listservers, Yahoo!/Google groups	Chat rooms, blogs, user-generated content sites, tagging, rating, reviewing
GoToMeeting [®] , LiveMeeting [®] , WebEx [®] , Skype [®] , Google Docs [™] , GeneBank [™]	Wikipedia, Wikia [™] , LinkedIn, Second Life, Blogger [®]	YouTube, Flickr, Picasa, Netflix, Technorati [™] , MySpace, Facebook, Digg, del.icio.us [™]
Want recognition for contributions May Aspire to Leadership		
Typically 2 to 2000 people		Typically 20 to 200,000,000 people
Work-related, goal-directed		Playful, process-oriented
Time-limited, milestones		Open-ended
Selected identified partners		Open unknown partners
Assign tasks and review each other's work		Act independently

Collaboration

- **Goals of Cooperation**
 - Focused partnerships
 - Lecture or demo
 - Conference
 - Structured work processes
 - Meeting and decision support
 - Electronic commerce
 - Tele-democracy
 - On-line communities
 - Collaboratories
 - Telepresence

أهداف التعاون
الشراكات المركزة
محاضرة أو تجريبي
مؤتمر
عمليات العمل المنظمة
دعم الاجتماع والقرار
التجارة الإلكترونية
تيلي لالديمقراطية
مجتمعات الانترنت
Collaboratories
التواجد عن بعد
اقتراح تعديل
عرض الترجمة الأصلية

Time/space matrix model of group-supported work



Asynchronous distributed interfaces: Different place, different time

- **Electronic mail:**

- can be too loosely structured
- sometimes overwhelming
- transient
- tools
 - filtering
 - archiving
 - mailing lists
 - discussion groups
- typically text-only, but increasingly includes other structured objects
 - graphics
 - sounds
 - animations
 - web pointers
 - video

بريد إلكتروني:

يمكن أن تكون فضاضة جدا منظم
وأحيانا الساحقة

عابر

أدوات

تصفية

أرشفة

القوائم البريدية

مجموعات المناقشة

وعادة ما يكون النص فقط، ولكن يشمل بشكل متزايد الكائنات

المنظمة الأخرى

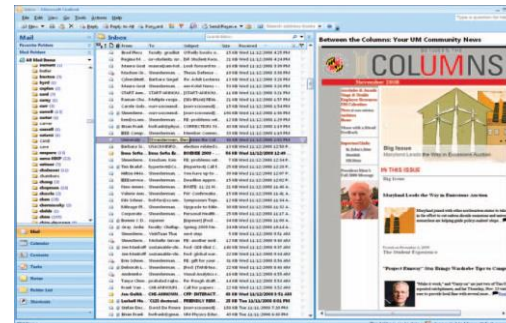
الرسومات

اصوات

الرسوم المتحركة

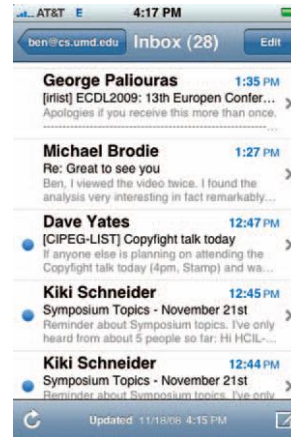
مؤشرات الويب

فيديو



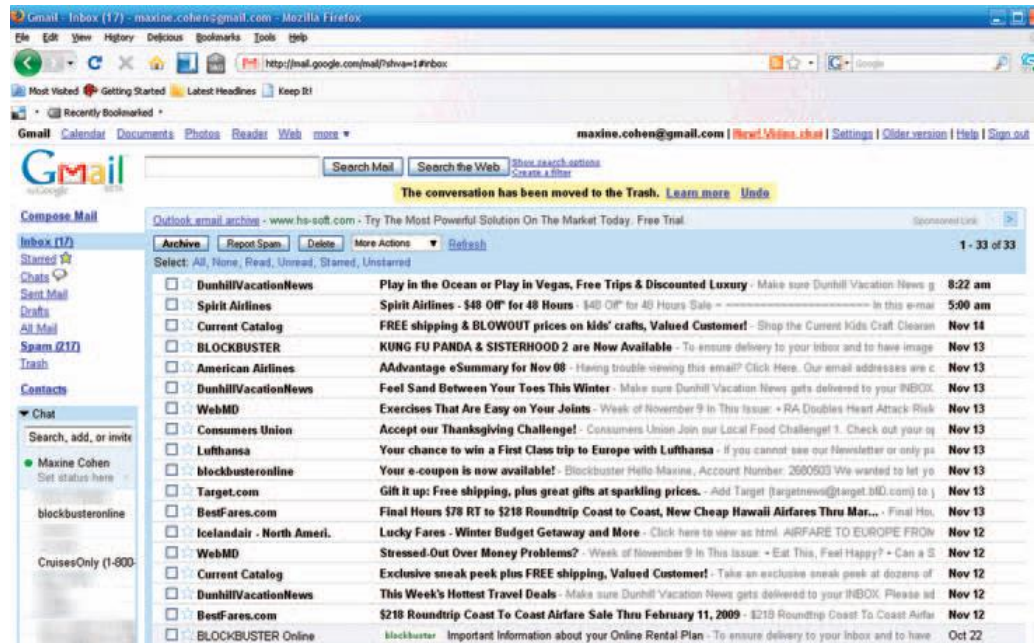
Asynchronous distributed interfaces: Different place, different time (cont.)

- **Electronic mail (cont.):**
 - Email on mobile devices
 - Online directories
 - Web services with E-mail
 - E.g. Hotmail, and Yahoo! Mail



E-mail message on an iPhone

Google's web-based email (Gmail)



Asynchronous distributed interfaces: Different place, different time(cont.)

- Newsgroups, list servers, discussion boards, conferences, social media participation web sites, blogs, and wikis
 - focused electronic discussions by group of people
 - USENET newsgroups
 - each group dedicated (more or less) to one topic
 - like ordered posting on bulletin board
 - users read as many previous notes and related comments as they wish
 - open to all
 - listserv
 - individual must subscribe to receive e-mail notices
 - may be moderated by a leader
 - may be mail reflector
 - users can get flooded with listserv e-mails
 - server machine keeps searchable archive or past notes and subscriber list
 - online conference
 - in addition to listserv tools, may also include additional facilities
 - voting
 - online directories of users
 - online directories of documents
 - online magazines and newsletters
 - Web-logs/blogs and wikis
- مجموعات الأخبار، ليسترسرفيرز، لوحات المناقشة، المؤتمرات، مواقع التواصل الاجتماعي على شبكة الإنترنت، بلوق، ويكي وركزت المناقشات الإلكترونية من قبل مجموعة من الناس أوسينيت كل مجموعة مخصصة (أكثر أو أقل) لموضوع واحد مثل نشر أمر على لوحة الإعلانات للمستخدمين قراءة العديد من الملاحظات السابقة والتعليقات ذات الصلة كما يحلو لهم مفتوحة للجميع خادم القوائم يجب على الفرد الاشتراك في تلقي إشعارات البريد الإلكتروني قد يكون مشرفا من قبل زعيم قد يكون عاكس البريد يمكن للمستخدمين الحصول على غمرت مع القوائم البريد الإلكتروني آلة الخادم يحتفظ أرشيف البحث أو الملاحظات الماضية وقائمة المشتركين مؤتمر عبر الإنترنت بالإضافة إلى أدوات القوائم، قد تشمل أيضا مرافق إضافية تصويت الدلائل على الإنترنت من المستخدمين الدلائل على الإنترنت من الوثائق والمجلات والنشرات الإخبارية عبر الإنترنت سجلات ويب / بلوق و ويكي

Asynchronous distributed interfaces: Different place, different time (cont.)

HCI User Advocate

Software makers and users often have conflicting goals - with the makers winning. Yet they all too often shoot themselves in the foot by distrusting the users - their customers. Or worse, mistreating them. It is time to get angry about bad and malicious software design. This Blog calls software designers on the carpet - giving them credit and shame where they deserve it.

TUESDAY, NOVEMBER 4

Design for Democracy



information hierarchy

For election day, I want to point to some fantastic work exploring how to improve the design of voting ballots and other material related to elections. Marcia Lausen's book, "[Design for Democracy: Ballot + Election Design](#)", part of the related AIGA Design for Democracy project does the job. She presents case studies, showing problematic decisions and very clear and simple refinements that address their

Me

- Ben Bederson
Associate Professor of Computer Science @ Univ. of Maryland and past Director of Human-Computer Interaction Lab (2000-2006)
Co-founder & Chief Scientist @ Zumbi - Zoomable Interfaces for Mobile

Previous Posts

- Why I returned my Apple TV
- PPTPlex - Zoomable presentations not quite yet for...
- The wonder of single tasking
- AT&T still nasty about service plans
- A Tale of 2 Dead Disks - Why Macs Make People Happ...
- Google owns your name with Picasa name tagging



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100 000+

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Social media

From Wikipedia, the free encyclopedia

This article needs additional citations for verification.
Please help improve this article by adding reliable references. Unsourced material may be challenged and removed. (August 2008)

Social media are primarily Internet- and mobile-based tools for sharing and discussing information among human beings.^{[1][2]} The term most often refers to activities that integrate technology, telecommunications and social interaction, and the construction of words, pictures, videos and audio. This interaction, and the manner in which information is presented, depends on the varied perspectives and "building" of shared meaning among communities, as people share their stories and experiences.

Contents [show]

Distinction from industrial media

Social media are distinct from industrial media, such as newspapers, television, and film. While social media are relatively cheap tools that enable anyone (even private individuals) to publish or access information, industrial media are relatively expensive tools that generally require significant financial capital to publish information (which often limits their use to commercial purposes)^[2]. Examples of industrial media include a printing press or a government-granted spectrum license.

"Industrial media" are commonly referred to as "traditional", "broadcast" or "mass" media.^[2]

navigation

- Main page
- Contents
- Featured content
- Current events
- Random article

search

Go Search

interaction

- About Wikipedia
- Community portal
- Recent changes
- Contact Wikipedia
- Donate to Wikipedia
- Help

toolbox

- What links here
- Related changes
- Upload file
- Special pages
- Permanent link
- Cite this page

languages

- Deutsch
- Français

Asynchronous distributed interfaces: Different place, different time (cont.)

- **Online and networked communities**
 - **Group identity**
 - **Patient support groups**
 - **Impact on offline communities**
 - **Community policies & freedom of speech**
 - **Network communities can be controversial**
 - **hackers**
 - **hate groups**
 - **para-military groups**
 - **Distance education courses**
 - **Reputation managers for online stores**

المجتمعات عبر الإنترنت والشبكات
هوية المجموعة
مجموعات دعم المرضى
التأثير على المجتمعات في وضع
عدم الاتصال
سياسات المجتمع وحرية الكلام
يمكن أن تكون مجتمعات الشبكة
مثيرة للجدل
قراصنة
مجموعات الكراهية
الجماعات شبه العسكرية
دورات التعليم عن بعد
مديري السمعة للمخازن على
الانترنت

Asynchronous distributed interfaces: Different place, different time (cont.)



[The Kneeboard](#)
[Community is here!](#)

[Create a profile:](#)
[tell your Knee Story!](#)

[Check out the new](#)
[Knee article library!](#)

[[Post New Message](#)] [[Search](#)] [[Set Preferences](#)] [[Mark All Messages Read](#)]
[[View User Profiles](#)] [[Create Profile](#)] [[Knee Library](#)] [[Who's Bob?](#)]

Bob's ACL WWWBoard

Message Index

Welcome!

Messages Posted Within the Last 7 Day(s) 32 of 6,970 Messages Displayed
(Reversed Threaded Listing)

- [girls flash](#) -- girls flash -- Friday, 31 October 2008, at 8:46 p.m.
- [eminent domain property right](#) -- eminent domain property right -- Friday, 31 October 2008, at 7:28 p.m.
- [symantec corp](#) -- symantec corp -- Friday, 31 October 2008, at 7:28 p.m.
- [Post op weight bearing](#) (views: 35) -- karatechic -- Thursday, 30 October 2008, at 1:56 p.m.
 - [Re: Post op weight bearing](#) (views: 24) -- OLarryR -- Thursday, 30 October 2008, at 7:07 p.m.
 - [Re: Post op weight bearing](#) (views: 26) -- OLarryR -- Thursday, 30 October 2008, at 7:12 p.m.
 - [Re: Post op weight bearing](#) (views: 41) -- SueBW -- Thursday, 30 October 2008, at 2:27 p.m.
- [Brace Separation Anxiety](#) (views: 62) -- Joel -- Thursday, 30 October 2008, at 8:57 a.m.
 - [Re: Brace Separation Anxiety](#) (views: 27) -- OLarryR -- Thursday, 30 October 2008, at 7:05 p.m.

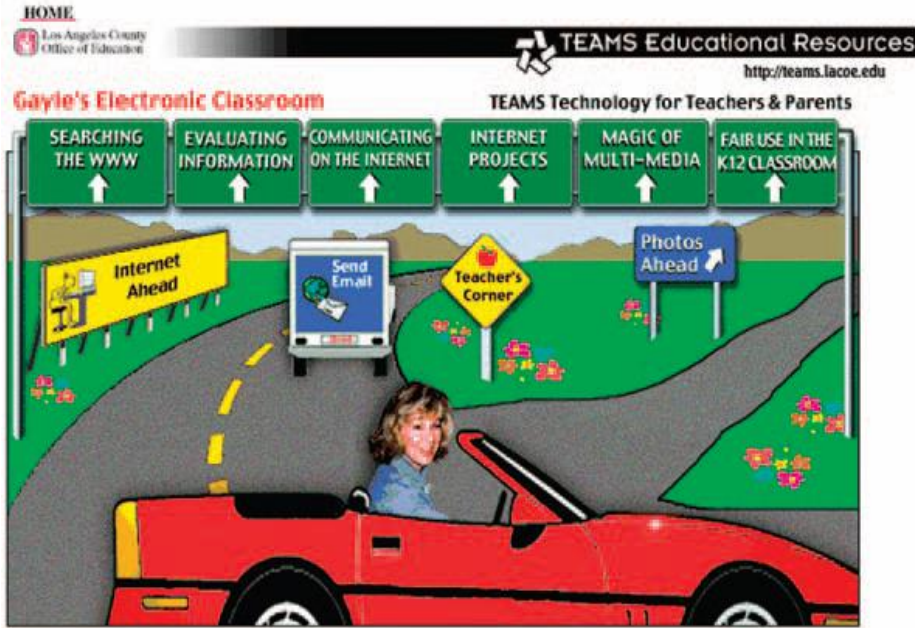
Ads by Google

[Get a Free Knee Pain Kit](#)
From SYNVISIC® to Learn How You Can Reduce Knee Pain Without Surgery.
www.SYNVISIC.com

[Acl Knee Brace](#)
Acl Knee Brace. Your Guide to Home Fitness.
Fitness.OneHealthyLife.com

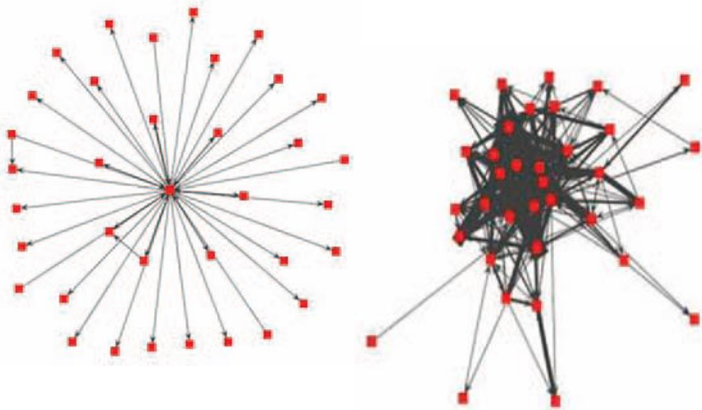
Bob's ACL Kneeboard, a threaded discussion board for people who have suffered tears of the anterior cruciate ligaments in their knees. (<http://factotem.org/cgi-bin/kneebbs.pl>)

Asynchronous distributed interfaces: Different place, different time (cont.)



Starting screen for a virtual classroom example from the Los Angeles County Office of Education

[Searching The World Wide Web](#) | [Evaluating Information](#) | [Communicating On The Internet](#) | [Internet Projects](#) | [Magic of Multimedia](#) | [Technology For Parents](#) | [Email Gayle](#) | [Teacher's Corner](#) | [Classes](#)



Visualization of the communication pattern of an “answer person” on the left, and a “discussion person” on the right (Welser et al).

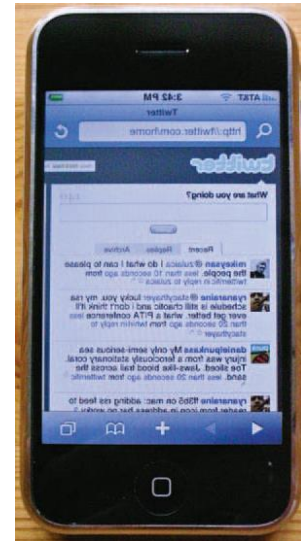
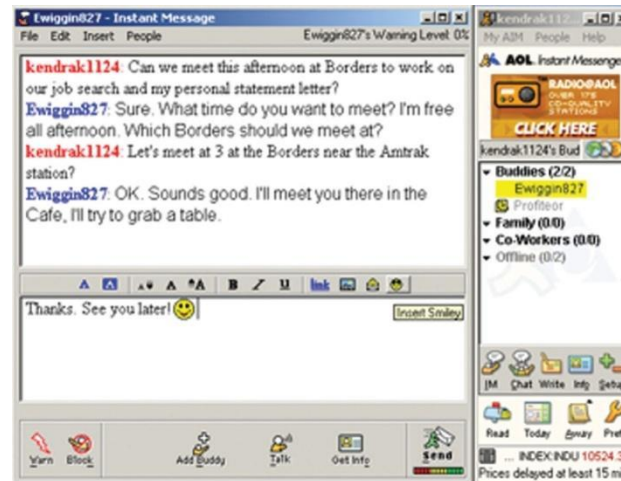
Synchronous distributed interfaces: Different place, same time

- Synchronous distributed applications
 - group editing
 - shared screens for customer assistance
 - give demonstrations simultaneously at multiple sites
 - allow sharing of information for various applications
 - interactive games

— تطبيقات متزامنة موزعة
مجموعة التحرير
وشاشات مشتركة لمساعدة العملاء
وإعطاء مظاهرات في وقت واحد في مواقع متعددة
السماح بتقاسم المعلومات لمختلف التطبيقات
والألعاب التفاعلية

Synchronous distributed interfaces: Different place, same time (cont.)

- Chat, instant messaging, and texting
 - CHAT, Internet Relay Chat (IRC), and TALK
 - Flamers
 - MUDs
 - Instant Messaging
 - LOL etc.
 - Twitter
 - Texting and cell phones



Synchronous distributed interfaces: Different place, same time (cont.)

The screenshot displays the Sentry Parental Controls web interface. At the top, there is a navigation bar with icons for Home, Activity Logs, Live Action, Settings, My Account, Help, and Log Out. Below this, the user 'Johnny-PC' is identified with installation and expiration dates. The main dashboard includes a calendar for January, a 'Conversations Report Summary' comparing 'Today' and 'This Month' statistics, and a 'Supported Applications' section listing AOL, icq, and mspaceim. A 'Conversation Logs' table is shown with columns for Date, Time, Chatted Users, Windows Account, Session Length, Application, Violation, and Status. A search bar is provided below the logs. At the bottom, a 'Conversation Details' section for a specific chat session is visible, showing the date, time, account name, session length, and violation category (Profanity) with found words like 'Sex' and 'Crap'.

Date	Time	Chatted Users	Windows Account	Session Length	Application	Violation	Status
	10:43 AM			12 min 20 sec			
	10:44 AM			1 min 15 sec			
	10:52 AM			20 min 1 sec			
	11:05 AM			1 hr 32 min			
	12:37 PM			37 min 25 sec			
	1:13 PM			35 min 7 sec			
	1:14 PM			9 min 22 sec			

Parental control system to oversee children's online activities
(<http://www.sentryparentalcontrols.com/>)

Synchronous distributed interfaces: Different place, same time (cont.)

- **Audio and video conferencing**

- videoconferencing

- slow response times for entering and leaving session
- distracting background audio
- difficulty in determining who is speaking
- inadequate lighting
- difficulty in making eye contact
- changed social status
- small image size
- potential invasion of privacy
- need for convenient turn taking
- need for document sharing

مؤتمرات الفيديو
زمن الاستجابة البطيء للدخول
والخروج من الجلسة
تشويش الصوت الخلفية
صعوبة في تحديد من يتحدث
الإضاءة غير كافية
صعوبة في إجراء اتصال العين
تغيير الوضع الاجتماعي
حجم الصورة الصغيرة
الغزو المحتمل للخصوصية
تحتاج إلى اتخاذ بدوره مريحة
تحتاج إلى تبادل الوثائق

Synchronous distributed interfaces: Different place, same time (cont.)

• Audio and video conferencing (cont.)

– issues of ownership and control

- private and public workspaces
- identity of participants
- location of actions
- care with updating

قضايا الملكية والسيطرة
ومساحات العمل الخاصة
والعامة
هوية المشاركين
موقع الإجراءات
الرعاية مع التحديث

– Whether audio or video conferencing is more appealing than chat, IM, and texting, or more effective than asynchronous text, depends on the goals and the task environment

ما إذا كان مؤتمر الصوت أو الفيديو أكثر جاذبية من الدردشة، إم، والرسائل النصية، أو أكثر فعالية من النص غير متزامن، يعتمد على الأهداف وبيئة المهمة

Face-to-face interfaces: Same place, same time

وتشمل النهج المبتكرة للعمل والتعلم ما يلي:
عرض مشترك من محطة عمل المحاضر
وحدات استجابة الجمهور
محطات عمل تقديم النصوص
العصف الذهني والتصويت والترتيب. فوائد أنظمة

• Innovative approaches to work and learning include:

- Shared display from lecturer workstation
- Audience response units
- Text-submission workstations
- Brainstorming, voting, and ranking.

- Benefits of electronic meeting systems:
- Parallel communication promotes broader input into the meeting process and reduces the chance that a few people dominate the meeting.
 - Anonymity mitigates evaluation apprehension and conformance pressure, so that issues are discussed more candidly.
 - The group memory constructed by participants enables them to pause and reflect on information and opinions of others during the meeting and serves as a permanent record of what occurred.
 - Process structure helps focus the group on key issues and discourages irrelevant digressions and unproductive behaviors.
 - Task support and structure provides information and approaches to analyze it.

وتشجع الاتصالات الموازية المدخلات الأوسع نطاقا في عملية الاجتماع وتقلل من احتمال أن يسيطر عدد قليل من الناس على الاجتماع. عدم الكشف عن هويته يخفف من مخاوف التقييم والضغط التوافق، بحيث يتم مناقشة القضايا بشكل أكثر صراحة. الذاكرة الجماعية التي شيدها المشاركون تمكنهم من وقفة والتأمل في المعلومات والآراء للآخرين خلال الاجتماع، ويكون بمثابة سجل دائم لما حدث. هيكل العملية يساعد على تركيز المجموعة على القضايا الرئيسية ويثبط الانعكاسات غير ذات الصلة والسلوكيات غير المنتجة. ويوفر دعم المهام وهيكلها معلومات ونهجاً لتحليلها.

Face-to-face interfaces: Same place, same time (cont.)

- File sharing
- Shared workspace
- Group activities
- Colab and Liveboard
- SMART Board
- Public spaces facilitate sharing
- Sharing photos is very popular
- Notification systems

مشاركة الملفات
مساحة العمل المشتركة
نشاطات المجموعات
كولاب و ليفبورد
السيبورة الذكية
وتسهل الأماكن العامة المشاركة
مشاركة الصور تحظى بشعبية كبيرة
أنظمة الإخطار

Face-to-face interfaces: Same place, same time (cont.)

- Electronic classrooms
 - Active individual learning experiences include using software during class time to:
 - Write essays in English or poems in a foreign language
 - Find antecedents of Impressionism in an art history library of 9000 images
 - Run business simulations to increase product quality
 - Perform psychological statistical analyses
 - Do landscaping with computer-assisted design and graphics packages
 - Compose computer programs and search the Internet

- Small teams and large teams

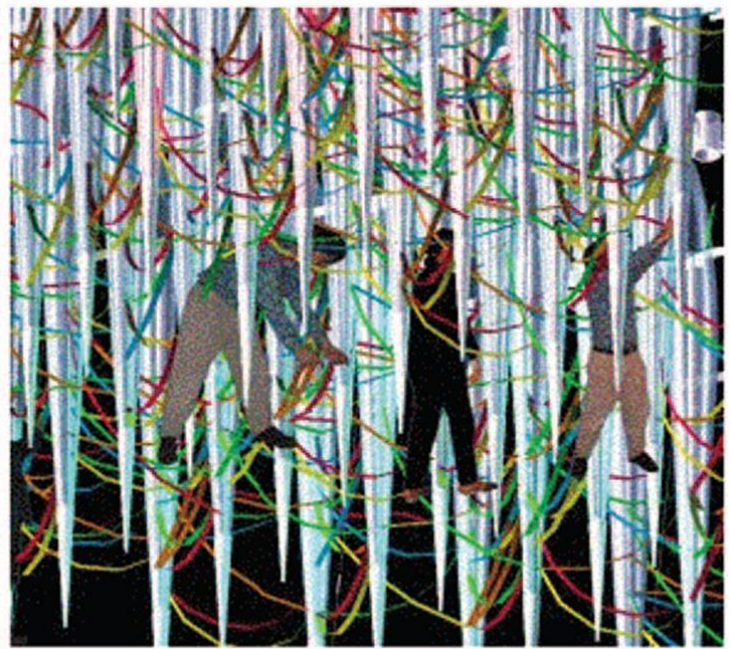
- Changes teaching style

الفصول الدراسية الإلكترونية
وتشمل تجارب التعلم الفردي النشط استخدام البرنامج أثناء وقت الصف إلى:
كتابة المقالات باللغة الإنجليزية أو القصائد بلغة أجنبية
العثور على السوابق الانطباعية في مكتبة تاريخ الفن من ٩٠٠٠ صورة
تشغيل محاكاة الأعمال التجارية لزيادة جودة المنتج
إجراء تحليلات إحصائية نفسية
القيام بالمنظر الطبيعية مع تصميم بمساعدة الحاسوب وحزم الرسومات
إنشاء برامج الكمبيوتر والبحث في الإنترنت
فرق صغيرة وفرق كبيرة
تغيير أسلوب التدريس

Face-to-face interfaces: Same place, same time (cont.)



Students in an online classroom. Activity is monitored by color: speech in yellow, hand motion in red, body motion in green. Under each student is a timeline of their individual activity and at the bottom is an activity picture (using the colors) of the class (Chen)



Modulor II is a time-dependent architectural work of art in which participants create new patterns daily by collaboratively weaving colored strings through an interactive labyrinth of luminous poles (Halkia and Local)

Questions for consideration

Computer-supported cooperative work questions

- How would facilitating communication improve or harm teamwork?
- Where does the community of users stand on centralization versus decentralization?
- What pressures exist for conformity versus individuality?
- How is privacy compromised or protected?
- What are the sources of friction among participants?
- Is there protection from hostile, aggressive, or malicious behavior?
- Will there be sufficient equipment to support convenient access for all participants?
- What network delays are expected and tolerable?
- What is the user's level of technological sophistication or resistance?
- Who is most likely to be threatened by computer-supported cooperative work?
- How will high-level management participate?
- Which jobs may have to be redefined?
- Whose status will rise or fall?
- What are the additional costs or projected savings?
- Is there an adequate phase-in plan with sufficient training?
- Will there be consultants and adequate assistance in the early phases?
- Is there enough flexibility to handle exceptional cases and special needs (users with disabilities)?
- What international, national, and organizational standards must be considered?
- How will success be evaluated?

Done by :
Fatemal Al-humoud
Ramlah Al-khardawi