

Citation:

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Generic ICT tools report: AUTC project

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As part of Stage 1 of the *AUTC Project: Information and Communication Technologies and Their Role in Flexible Learning*, the task was set to 'search for, identify and describe the range of generic ICT-based tools that currently exist for use in flexible learning environments'. This task was completed in March 2002.

The attached tables summarise the features, limitations, affordances and availability of a variety of generic ICT tools available online. The search for suitable tools used five broad strategies:

1. Directed investigation of a range of tools known to the Project through advice of Evaluators (e.g., Fablusi, Cool Tools. And WebTeach).
2. Colleagues with multimedia and internet expertise were questioned re their knowledge of appropriate web-based ICT tools.
3. Conference proceedings (notably EdMedia CD-ROM proceedings) were searched electronically.
4. Internet searching was conducted using descriptors such as ICT tool/program, generic tool/program, interactive tool /program, flexible tool/program , evaluation tool/program, discussion tool/program, checklist tool/program, etc
5. Links were followed from appropriate sites to other available ICT tools.


The tools found were reviewed, and summarised across the following criteria (see attached tables):

- Name of tool
- Type of tool
- Description
- Learning activities supported
- Designer and/or location
- Accessibility
- Other significant issues


Findings ranged from excellent, well-designed and functional tools to unsupported tools from neglected sites. The recommendation is made to conduct a more purposeful search

of generic tools if the Project decides that such existing tools (as opposed to custom made tools) could be usefully incorporated into learning designs.


Generic ICT-based tools: Talkitover

Name of tool	Talkitover
Type of tool	Discussion tool
Description	<p>Talkitover is a web-based discussion tool that enables user to create private or public discussion groups on the web.</p>  <p>Users choose a short, informative name for a group, describing the area in which they intend to have discussions or collaborations (Example: Global warming and other weather changes) and provide an email address. As soon as Talkitover creates the group it sends an email message giving all the information necessary to use the group, in particular its Web address.</p> <p>If a group description is provided it gives group participants an indication of what is intended to be discussed. This will remain accessible in the group's Web page. Users can nominate recipients (email addresses) to be notified of the creation of the discussion group. This option only emails the creation notice. It does not <i>subscribe</i> anyone to the group. However, participants to the discussion group can be subscribed at the time of the creation of the list if preferred. Groups are private but can be made public to have the broadest possible appeal.</p>
Learning activities supported	<p>Talkitover is a basic tool which enables learners to engage in discussion and collaboration at a distance at no cost to themselves. For example, in an online course, collaborative groups could be set up for different tasks. The discussions on existing topics could also be accessed and followed where appropriate. Examples of uses given on the site itself include:</p> <ul style="list-style-type: none"> • A working group preparing the next revision of a standard. • The editorial board of a journal (or a program committee for a conference) to exchange confidential reviews, editorial decisions, policy discussions. • Three professors from London (Ontario), London (England) and London (New South Wales, Australia) working on a joint research project and completing a book together. • Two people who met at a conference, started a discussion, and want to pursue it in depth involving others who may have ideas to contribute. • A team of students and researchers working on a joint paper. • A team within a company preparing a joint report for the next annual meeting.
Designer and/or location	<p>Talkitover Advertizing ISE Building ,270 Storke Road, second floor Goleta CA 93117 USA Telephone 805-685-1006, fax 805-685-6869</p>
Accessibility	<p>Free availability and access from: http://www.talkitover.com/create.html (Revenue from advertising)</p>
Other issues	<p>Freeware has no guarantees of reliability or permanence.</p>


Generic ICT-based tools: Fablusi

Name of tool	Fablusi
Type of tool	Role play simulation generator
Description	<p>Fablusi is a role-play simulation generator modelling human situations, such as those encountered in the study of political science or management. Participants act out their roles subject to the privileges and constraints designed into the simulation by its creator.</p>  <p>A role-play simulation starts with a scenario with some roles in the scene. Learners play in character. As roles log onto the system, they are given instructions and can read about the scenario. Usually, after starting, the role-play simulation will continue by itself and be self-sustaining. Instructors monitor the progress of the simulation, offering support, help and guidance as required.</p>
Learning activities supported	<p>Any learning situation benefiting from exploration of issues via role play. Examples on the site include:</p> <ul style="list-style-type: none"> • The second race: This simulation is for creative writing in primary school. The pedagogical design is to first have the children read the story, then they role play and write about their feelings. They are then asked to enter the "Forest Cafe" to discuss. Koala is asked to stir up the atmosphere and promote a second race. • The Park Council: This simulation is particularly good for building team spirit, developing collaboration and communication skills and promoting group decisions. Each role has information the other roles do not have and each has individual objectives as well. Some of the objectives are contradictory and hence need negotiation and compromise. • Political Science Simulation Over a 3 week period, students role play as various world leaders, organisations and media outlets. They experience many of the dilemmas and issues involved in World Politics and have the opportunity to test the applicability of different theoretical positions involved in the analysis of international relations.
Designer and/or location	<p>Albert Ip albert@dls.au.com Fablusi (c)2000 Digital Learning Systems P/L; Simulator generator Copyright 1999 by Albert Ip; Copyright 1999 by Ip and Associates P/L</p>
Accessibility	<p>Available on demand direct to Albert Ip. May be some time before demand can be met.</p>
Other issues	<p>Site has not been updated since March 2000. Not a self-contained tool - highly dependent on site creator for simulation design and creation. Once created, individuals can maintain site. Content of various simulation belongs to their respective owners.</p>


Generic ICT-based tools: RonSUB

Name of tool	RonSUB
Type of tool	Online PBL management tool
Description	<p>RonSUB is an online management tool used by several staff at Edith Cowan University to support PBL learning activities among large groups of students.</p>  <p>The screenshot shows a web browser window with the URL 'http://112.112.112.112'. The page title is 'Workshop 1 Group 2' and 'Session 2 Weekly Problem 2'. The main content area is titled 'Group 2 Problem 2 Submission' and contains a 'Weekly Problem 2' section. The problem text discusses a design process for a website, mentioning 'WWW 112112 website' and 'WWW 112112 website'. Below the text are several paragraphs of text, each followed by a 'Submit' button. At the bottom of the page, there are checkboxes for 'Submit solution', 'View solution', and 'Submit feedback', along with a 'Logout' button.</p> <p>The RonSUB environment is a PERL scripted online generic tool. It comes as a shell into which the teacher enters a series of problems, students organised into classes (workshops) and workshops organised into collaborative groups. The tool has 2 main functions, an admin function which enables the teacher to set up the environment and to manage the groups and mark the submissions and review the marks. The student component enables student to post and edit solutions, peer assess the solutions of their colleagues, review the best solutions, view their marks and teacher's feedback, and see their progressive totals.</p> <p>The system works on Macintosh, windows and UNIX boxes and is very portable and reliable with low bandwidth demands.</p>
Learning activities supported	<p>RonSUB has been used in a number of settings at Edith Cowan University to support problem-based learning activities among students in large classes. The format typically follows:</p> <ul style="list-style-type: none"> • Students work collaboratively in groups to formulate a short response to a problem which has been designed to make chapters in textbooks meaningful and relevant; • The learners post their solutions into the RonSUB space where it becomes visible to other groups • Students read other solutions to the problem and vote for the best solutions, a form of peer assessment; • The teacher marks the solutions and provides feedback and the system records the marks over the semester (and over the number of problems students are required to complete); • The system has a number of features which enables students to view the best solutions each week and to record students who participated so that non-participants are recorded. An expert facility exports the results at the end of the semester into a spreadsheet for assessment purposes.
Designer and/or location	<p>Ron Oliver Edith Cowan University Bradford St, Mount Lawley, WA 6018.</p>
Accessibility	<p>Used widely by staff and students in online learning activities at ECU</p>
Other issues	<p>The system is free to use to staff and students at the university. It has been the focus of a number of papers presented at conferences.</p>

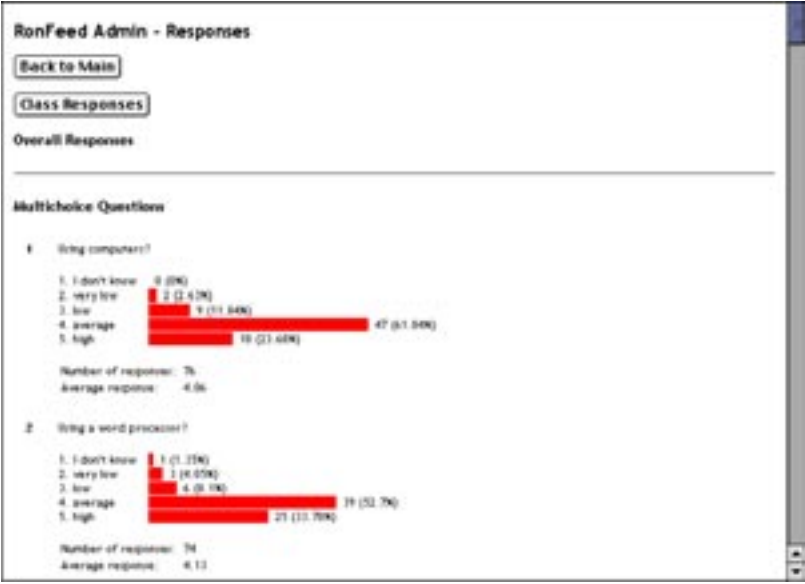
Generic ICT-based tools: RonPOST

Name of tool	RonPOST
Type of tool	Online debating tool
Description	<p>RonPOST is a customised online debating tool. It provides a pair of parallel windows into which opposing and supporting arguments are shown.</p>  <p>To use the tool, teachers log into the Admin page and enter some brief details, which include the debate topic, and some simple instructions.</p> <p>Learners log into the debate page and can view the arguments to date by scrolling the windows. Learners choose a side (or are given a side by the teacher) and contribute their own posting. Posting can also be given to refute arguments posted by the opposing class members.</p> <p>A reflection element provides learners with the opportunity to look at the arguments presented and to comment on the debate as a concluding and consolidating activity.</p>
Learning activities supported	<p>RonPOST can be easily set up and can work as a learning activity within any online setting. The tool requires very low bandwidth and uses PERL scripts to maintain its functionality.</p> <p>Debates can be used to promote reflection and articulation in a variety of instructional settings. Areas where the tool could be used to advantage include:</p> <ul style="list-style-type: none"> • Discussion and development of issues; • Controversial topics and content areas; • Instances where students are learning to argue and/or promote particular points of view.
Designer and/or location	<p>Ron Oliver Edith Cowan University Bradford St, Mount Lawley, WA 6018.</p>
Accessibility	<p>Used widely by staff and students in online learning activities at ECU</p>
Other issues	<p>The system is free to use to staff and students at the university. It has been the focus of a number of papers presented at conferences.</p>


Generic ICT-based tools: RonURL

Name of tool	RonURL
Type of tool	Online URL sharing tool
Description	<p>RonURL is a Web-based tool that enables learners to post and share Web references as part of any online inquiry or investigation activity.</p>  <p>The screenshot shows a web page titled 'IMM3201/IMM4106 - Open Learning' with a sub-heading 'Topic 1 - Searching the Web: Information Page'. It features two buttons: 'Back to Topic List' and 'Add a new URL'. Below, it states 'The following URLs have been submitted:' and lists five entries, each with a URL, a title, and the user who posted it along with the date and time.</p> <p>Another database driven activity. The teacher uses the Admin page to set up the context for the URL sharing by entering a topic or a series of topics.</p> <p>The Student link provides students with a series of topics and as each is selected students can see the URLs posted by their peers or can post new URLs to the online database. A descriptive component provides learners with the opportunity to add comments describing the URL and their reasons for contributing it to the public list.</p> <p>A couple of useful features include the capacity for the teacher to moderate the site to edit typographical errors and mistypings. The teacher can also highlight significant references as a reward system or simply to indicate the best links on the page.</p>
Learning activities supported	<p>The URL sharing activity can be used in a number of ways to promote collaborative and cooperative behaviour among learners:</p> <ul style="list-style-type: none"> • It can be used as a simple activity to enable learners to contribute in meaningful ways to the resources used for inquiry tasks. • It can be used as an incentive and an assessment task to encourage learners to contribute in meaningful ways to the online community in which they are working. • It can be used as a means for teachers to keep Web sites up to date. The student inquiry can help the Web site to maintain current links over a period of time without requiring the teacher to be solely responsible for this.
Designer and/or location	<p>Ron Oliver Edith Cowan University Bradford St, Mount Lawley, WA 6018.</p>
Accessibility	<p>Used widely by staff and students in online learning activities at ECU</p>
Other issues	<p>The system is free to use to staff and students at the university. It has been the focus of a number of papers presented at conferences.</p>


Generic ICT-based tools: RonFEED

Name of tool	RonFEED																				
Type of tool	Online questionnaire tool																				
Description	<p>A simple Web-based tool that enables students to create and administer online questionnaires and to view the results of the implementation in summary form.</p>  <p>The screenshot shows the 'RonFeed Admin - Responses' interface. It has two buttons: 'Back to Main' and 'Class Responses'. Below these are 'Overall Responses' and 'Multichoice Questions'. Two questions are displayed:</p> <p>1. Using computers?</p> <table border="1"> <tr><td>1. I don't know</td><td>0 (0.0%)</td></tr> <tr><td>2. very low</td><td>2 (2.63%)</td></tr> <tr><td>3. low</td><td>9 (11.84%)</td></tr> <tr><td>4. average</td><td>47 (61.03%)</td></tr> <tr><td>5. high</td><td>19 (24.49%)</td></tr> </table> <p>Number of responses: 78 Average response: 4.06</p> <p>2. Using a word processor?</p> <table border="1"> <tr><td>1. I don't know</td><td>1 (1.28%)</td></tr> <tr><td>2. very low</td><td>1 (1.28%)</td></tr> <tr><td>3. low</td><td>6 (7.69%)</td></tr> <tr><td>4. average</td><td>79 (101.03%)</td></tr> <tr><td>5. high</td><td>21 (26.92%)</td></tr> </table> <p>Number of responses: 79 Average response: 4.13</p> <p>The concept behind this tool is that often there is much to be learned from exploring the views and opinions and thoughts of others. RonFEED provides a simple mechanism for students to set up online questionnaires consisting of Likert type scale items and text responses.</p> <p>The Admin function enables the user to enter the title and directions for the questionnaire as well as entering the questions and the response scales.</p> <p>The online form is accessed through a Web link and when responses are submitted they are aggregated with others. The aggregated responses can then be viewed and used as the basis for further discussion and reflection.</p>	1. I don't know	0 (0.0%)	2. very low	2 (2.63%)	3. low	9 (11.84%)	4. average	47 (61.03%)	5. high	19 (24.49%)	1. I don't know	1 (1.28%)	2. very low	1 (1.28%)	3. low	6 (7.69%)	4. average	79 (101.03%)	5. high	21 (26.92%)
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Learning activities supported	<p>The questionnaire can be used in a variety of settings, particularly those where opinions and feelings are useful to an inquiry or exploration. The tool has been used for a number of activities to date including:</p> <ul style="list-style-type: none"> • The creation of online surveys as data gathering devices; • Gaining feedback from learners on course and unit satisfaction and progress; • Surveying learners to establish individual and group differences on topics of importance and relevance; • Exploring cultural differences and awareness among cohorts of students. 																				
Designer and/or location	<p>Ron Oliver Edith Cowan University Bradford St, Mount Lawley, WA 6018.</p>																				
Accessibility	<p>Used widely by staff and students in online learning activities at ECU</p>																				
Other issues	<p>The system is free to use to staff and students at the university. The tool has been built to support scalable use. It can be used as easily with a large cohort of students (eg. 500) as with small numbers.</p>																				

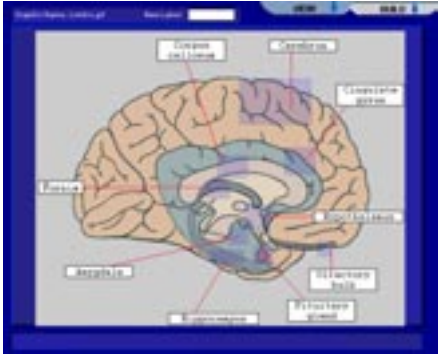
Generic ICT-based tools: RonDIARY

Name of tool	RonDIARY
Type of tool	Online diary
Description	<p>RonDIARY is an online tool that enables a diary to be established for students in a class or online learning setting. The diary creates a private space for all learners into which they can post reflective comments in the course of their learning.</p>  <p>Students are administered a password and can access their own personal space. They can enter their reflections as discrete entries which are dated. Teachers of the online units have access to the students' diaries, but other students do not. Text can be copied and pasted into other documents if required.</p>
Learning activities supported	<p>The online diary can be used as required by students and teachers of online units in situations where a reflective element to learning is encouraged. In particular, it is useful in promoting:</p> <ul style="list-style-type: none"> • Reflection and consolidation of learning over a sustained period of time. • Creation of an ongoing record of learning which can form the basis of a more formal piece of writing or article. • Private communication with an online tutor that is less public than a discussion board or chat room.
Designer and/or location	<p>Ron Oliver Edith Cowan University Bradford St, Mount Lawley, WA 6018.</p>
Accessibility	<p>Used widely by staff and students in online learning activities at ECU.</p>
Other issues	<p>The system is free to use to staff and students at the university. It has been the focus of a number of papers presented at conferences.</p>


Generic ICT-based tools: Hot potatoes

Name of tool	Hot potatoes
Type of tool	Test/quiz generator
Description	<p>The Hot Potatoes suite includes six applications, enabling users to create interactive multiple-choice, short-answer, jumbled-sentence, crossword, matching/ordering and gap-fill exercises for the World Wide Web.</p>  <p>Users register to gain access to the software. Tutorials are available in different languages. The software was first released in parallel versions for Windows95 and Macintosh in August 1998. It is currently in version 4, and is used by many thousands of users in more than 100 countries worldwide, principally (it seems from sample sites on the website) for language teaching.</p>
Learning activities supported	<p>The suite of six tools (interactive multiple-choice, short-answer, jumbled-sentence, crossword, matching/ordering and gap-fill exercises) mainly support the development of low level question and answer or multiple choice question tests. They might be useful for the development of self-check tests and other reflective checks, and appear to be very useful for checking vocabulary in language learning. They would not be useful for collaborative tasks.</p>
Designer and/or location	<p>Stewart Arneil sarneil@uvic.ca Martin Holmes mholmes@uvic.ca Half-Baked Software Inc. P.O. Box 3075, STN CSC Victoria, B.C. V8W 3W2 Canada Fax: (Canada) 250-721-6497 Telephone 805-685-1006, fax 805-685-6869</p>
Accessibility	<p>Hot Potatoes is not freeware, but it is free of charge for non-profit educational users who make their pages available on the web. Other users must pay for a licence. Hot Potatoes is free for use by individuals or educational institutions which are non-profit making, on the condition that the material you produce using the program is freely available to anyone via the WWW.</p>
Other issues	<p>License for other uses can be obtained. Support available from developers at the University of Victoria Humanities Computing and Media Centre. Online technical support discussion board is provided.</p>

Generic ICT-based tools: Cool tools

Name of tool	Cool tools
Type of tool	Interactive multimedia tool generator
Description	<p>A Cool Tool is a small computer program that provides educational interactive multimedia through a web browser. A Cool Tool is a 'Shockwave application' that sits inside a HTML web page. It assists in presenting dynamic information in a meaningful way. COOL Tools provides a student with different and more engaging approaches to learning tasks.</p> <p>A COOL Tool sits in a web page and typically will ask a student to complete a series of tasks. Often a COOL Tool will display a variety of videos, images, pieces of information, or play sounds. A student's response can usually be assessed, printed and e-mailed.</p>  <p>Tools currently available are: Interactive Labels; Interactive Numeric Exercises; Media Synchronisation; Page Layout Practice; Question, Answer & Feedback; Quick Quiz and Drag & Drop Text. The educational benefit of the tools stem from their dynamic nature, giving students the capacity to see and understand interrelationships.</p> <p>COOL Tools are available for both Mac and Windows, and require a student's computer to conform to the minimum technical requirements (as outlined by USQ Online). Most COOL Tools require the installation of Shockwave plugin and several supporting files 'Xtras'.</p>
Learning activities supported	<p>The principal learning activities supported by each tool are:</p> <p>Interactive Labels: presents students with a fully labelled diagram or image and the ability to hide the labels. A self test facility allows students to drag labels on to the diagram.</p> <p>Interactive Numeric Exercises: provides immediate feedback to students solving complex problems involving many intermediate steps.</p> <p>MediaSync: enables video or audio/image sequences to be seamlessly integrated into educational materials e.g. allowing analysis of a section of video over several weeks.</p> <p>Page Layout Practice: enables a student to practice correct text entry and formatting to a specified standard. Feedback is provided on two levels - technical and structural.</p> <p>Question, Answer & Feedback: encourages students to spend some time attempting activities before looking at one or more expert answers.</p> <p>Quick Quiz: enables a student to practice matching terms to definitions or a short expression to a longer one. The tool keeps track of the number of attempts a student makes.</p> <p>Drag & Drop Text: allows the student to choose a section of text from a list. The section is then dragged to a target location.</p>
Designer and/or location	<p>Head of Interactive Learning Services, Lesley Richardson; Interactive Multimedia (IMM) Allan Edwards</p> <p>University of Southern Queensland</p>
Accessibility	Freely available (appears to be)
Other issues	Most COOL Tools require the installation of the Shockwave plugin and several supporting files called 'Xtras'. Support page provided on USQ site.

Generic ICT-based tools: WebTeach

Name of tool	WebTeach
Type of tool	Discussion tool
Description	<p>WebTeach is a web based package designed to support teacher-student interactions for class teaching on the web. It is designed to facilitate discussions and the use of familiar classroom teaching strategies within a virtual classroom. WebTeach has been developed at UNSW to support flexible learning programs and as a research tool. It is being used by several Schools at UNSW in support of flexible mode teaching.</p> <p>WebTeach® supports three virtual locations: a Notice Board, a Seminar Room and a Coffee Shop. The software distinguishes between the teachers and the students in a group. Only teachers may post Notices or initiate Seminar Room activities. Anyone can initiate a conversation in the Coffee Shop.</p>  <p>WebTeach is asynchronous. All groups are password protected. The group can have one or more teachers, also called group leaders, who are specified at the time the group is set up. The software recognises instructions and submissions from the teachers by their user names and passwords.</p>
Learning activities supported	<p>WebTeach supports a range of activities benefiting from discussion and/or collaboration. Examples include (from the site):</p> <p>Case study mode allows you to put up the initial material and seek responses from the students. You can also comment, and if appropriate you can request that your comment appear in highlight (bold face) to grab student attention.</p> <p>The WebTeach discussion mode supports this and allows you to highlight your own comments if you wish so that they stand out. At any time in the discussion you can run a quick brainstorm to get students' reactions to an issue, or pose a formal question for them to all respond to.</p> <p>The Informal argument mode allows you to post a proposition and require students to take a position on it, for or against, when responding. Fence sitters will be required by the software to indicate for or against before their contributions are accepted. In formal debate mode, you can allocate students to teams by email or via a WebTeach Notice, then start the debate.</p>
Designer and/or location	Chris Hughes c.hughes@unsw.edu.au , University of New South Wales
Accessibility	Online registration, and password and email address for each student. Appears to be set up for UNSW. Not necessarily freely available.
Other issues	Customised discussion board, refined and adapted for use at UNSW.