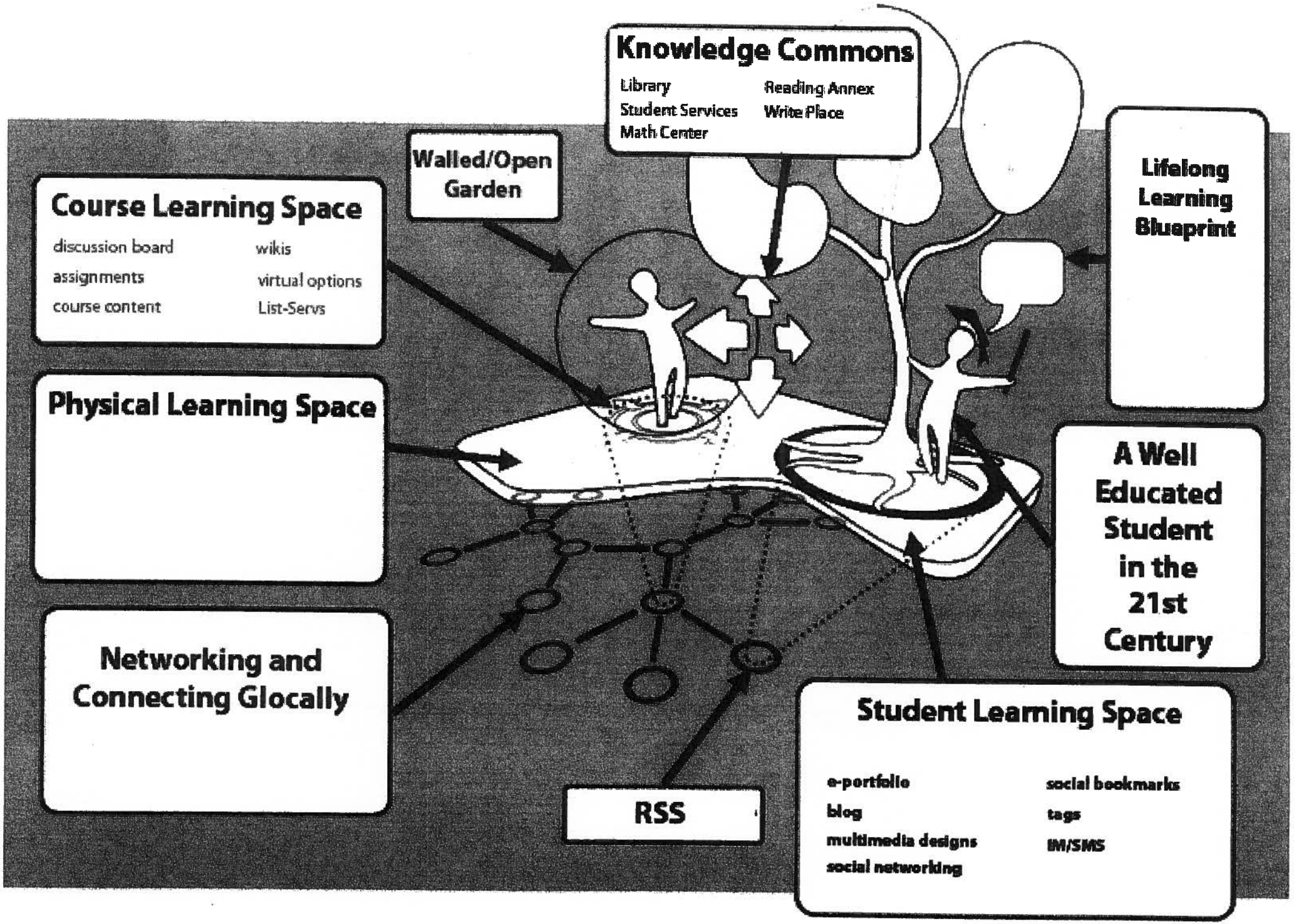

Knowledge Commons
Library
Reading Annex
Student Services
Write Place
Math Center
Walled/Open Garden
Lifelong Learning Blueprint
Course Learning Space
discussion board
wikis
assignments
virtual options
course content
List-Servs
Physical Learning Space
A Well Educated Student in the 21st Century
Networking and Connecting Glocally
RSS
Student Learning Space
e-portfolio
social bookmarks
blog
tags
multimedia designs
IM/SMS
social networking

The NCTE Definition of 21st-Century Literacies

Adopted by the NCTE Executive Committee
February 15, 2008

Literacy has always been a collection of cultural and communicative practices shared among members of particular groups. As society and technology change, so does literacy. Because technology has increased the intensity and complexity of literate environments, the twenty-first century demands that a literate person possess a wide range of abilities and competencies, many literacies. These literacies—from reading online newspapers to participating in virtual classrooms—are multiple, dynamic, and malleable. As in the past, they are inextricably linked with particular histories, life possibilities and social trajectories of individuals and groups. Twenty-first century readers and writers need to

- Develop proficiency with the tools of technology
- Build relationships with others to pose and solve problems collaboratively and cross-culturally
- Design and share information for global communities to meet a variety of purposes
- Manage, analyze and synthesize multiple streams of simultaneous information
- Create, critique, analyze, and evaluate multi-media texts
- Attend to the ethical responsibilities required by these complex environments

PARTNERSHIP FOR 21ST CENTURY SKILLS

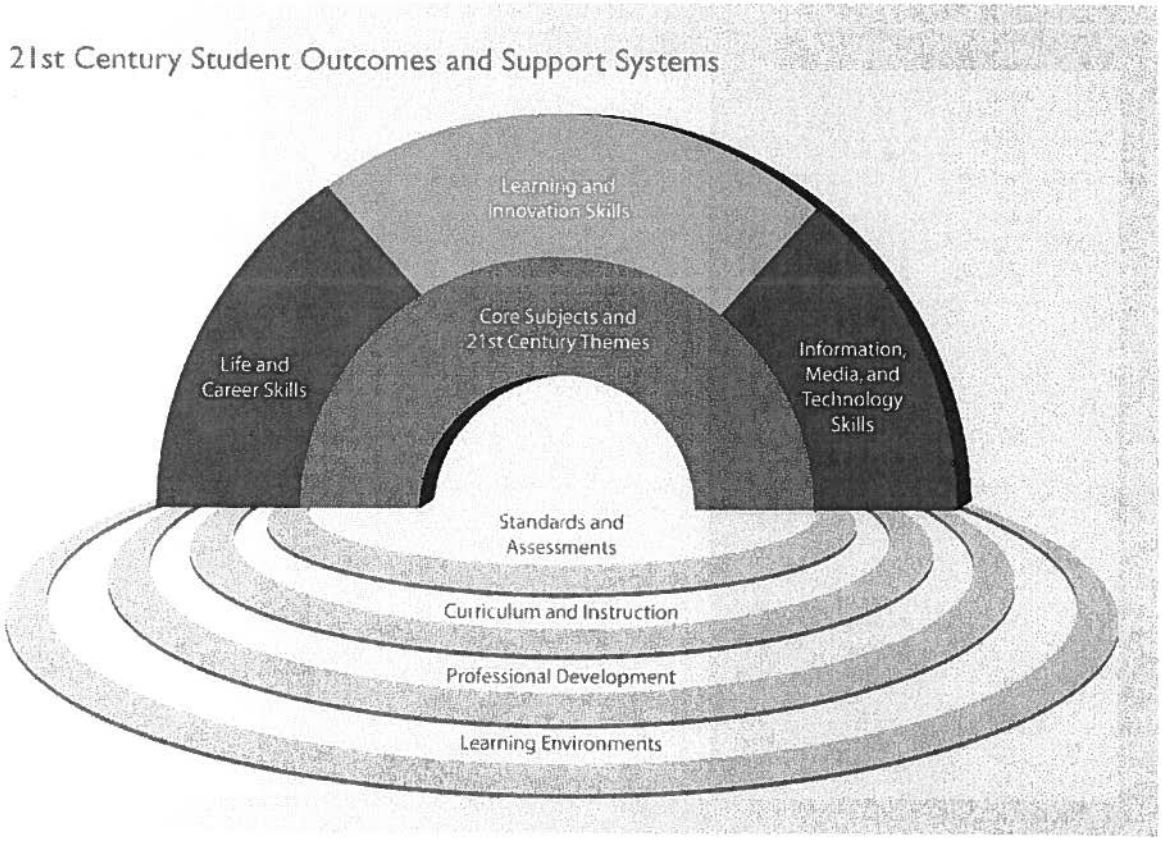
Framework for 21st Century Learning

Member Organizations

- Adobe Systems Inc.
- American Association of School Librarians
- Apple
- AT&T
- Blackboard Inc.
- Cable in the Classroom
- Cisco Systems Inc.
- Corporation for Public Broadcasting
- Davis Publications Inc.
- Dell Inc.
- Discovery Education
- EF Education
- Educational Testing Service
- Education Networks of America
- Ford Motor Company Fund
- Intel Foundation
- JA Worldwide
- KnowledgeWorks Foundation
- LeapFrog SchoolHouse
- McGraw-Hill Education
- Microsoft Corporation
- National Education Association
- Oracle Education Foundation
- Pearson Education
- PolyVision
- SAP
- SAS Institute
- Texas Instruments
- THINKronize
- Thomson Gale
- Verizon

Publication date: 07/23/07

The Partnership for 21st Century Skills has developed a vision for 21st century student success in the new global economy.



21ST CENTURY STUDENT OUTCOMES

The elements described in this section as "21st century student outcomes" (represented by the rainbow) are the skills, knowledge and expertise students should master to succeed in work and life in the 21st century.

Core Subjects and 21st Century Themes

Mastery of **core subjects and 21st century themes** is essential for students in the 21st century. Core subjects include English, reading or language arts, world languages, arts, mathematics, economics, science, geography, history, government and civics.

We believe schools must move beyond a focus on basic competency in core subjects to promoting understanding of academic content at much higher levels by weaving **21st century interdisciplinary themes** into core subjects:

- **Global Awareness**
- **Financial, Economic, Business and Entrepreneurial Literacy**
- **Civic Literacy**
- **Health Literacy**

Learning and Innovation Skills

Learning and innovation skills are what separate students who are prepared for increasingly complex life and work environments in the 21st century and those who are not. They include:

- **Creativity and Innovation**
- **Critical Thinking and Problem Solving**
- **Communication and Collaboration**

Information, Media and Technology Skills

People in the 21st century live in a technology and media-driven environment, marked by access to an abundance of information, rapid changes in technology tools and the ability to collaborate and make individual contributions on an unprecedented scale. To be effective in the 21st century, citizens and workers must be able to exhibit a range of functional and critical thinking skills, such as:

- **Information Literacy**
- **Media Literacy**
- **ICT (Information, Communications and Technology) Literacy**

Life and Career Skills

Today's life and work environments require far more than thinking skills and content knowledge. The ability to navigate the complex life and work environments in the globally competitive information age requires students to pay rigorous attention to developing adequate life and career skills, such as:

- **Flexibility and Adaptability**
- **Initiative and Self-Direction**
- **Social and Cross-Cultural Skills**
- **Productivity and Accountability**
- **Leadership and Responsibility**

21ST CENTURY SUPPORT SYSTEMS

Developing a comprehensive framework for 21st century learning requires more than identifying specific skills, content knowledge, expertise and literacies. An innovative support system must be created to help students master the multi-dimensional abilities required of them in the 21st century. The Partnership has identified five critical support systems that ensure student mastery of 21st century skills:

- **21st Century Standards**
- **Assessment of 21st Century Skills**
- **21st Century Curriculum and Instruction**
- **21st Century Professional Development**
- **21st Century Learning Environments**

For more information, visit the Partnership's website at www.21stcenturyskills.org.

Twenty-First Century Skills

In order to thrive in a digital economy, students will need digital age proficiencies. It is important for the educational system to make parallel changes in order to fulfill its mission in society, namely the preparation of students for the world beyond the classroom. Therefore, the educational system must understand and embrace the following 21st century skills within the context of rigorous academic standards.

1. Digital Age Literacy—Today's Basics

- **Basic, Scientific, and Technological Literacies**
  As society changes, the skills that citizens need to negotiate the complexities of life also change. In the early 1900s, a person who had acquired simple reading, writing, and calculating skills was considered literate. It has only been in recent years that the public education system has expected all students to learn to read critically, write persuasively, think and reason logically, and solve complex problems in mathematics and science.

- **Visual and Information Literacy**
  The graphic user interface of the World Wide Web and the convergence of voice, video, and data into a common digital format have increased the use of visual imagery dramatically. Advances such as digital cameras, graphics packages, streaming video, and common imagery standards,allow for the use visual imagery to communicate ideas. Students need good visualization skills to be able to decipher, interpret, detect patterns, and communicate using imagery. Information Literacy includes accessing information efficiently and effectively, evaluating information critically and competently, and using information accurately and creatively.

- **Cultural Literacy and Global Awareness**
  The world is rapidly becoming wired and the resulting globalization of commerce and trade has increased the need for cultural literacy. In such a global economy, with the U.S. concerned about interactions, partnerships and competition from around the world, there is a greater necessity for knowing, understanding and appreciating other cultures, including cultural formations established as norms in a technological society, such as virtual realities.

2. Inventive Thinking—Intellectual Capital

- **Adaptability/Managing Complexity and Self-Direction**
  The interconnectedness of today's world brings with it unprecedented complexity. Globalization and the Web are inherently complex, accelerating the pace of change in today's world. Interaction in such an environment requires individuals to be able to identify and react to changing conditions independently—self-directed learners who are able to analyze new conditions as they arise, identify the new skills that will be required to deal with these conditions and independently chart a course that responds to these changes. They must be able to take into account contingencies, anticipating changes, and understanding interdependencies within systems.

- **Curiosity, Creativity and Risk-taking**
  Today's knowledge workers are expected to adjust and adapt to changing environments. Inherent in such lifelong learning is a curiosity about the world and how it works. Researchers now understand how the very structure of the brain can be changed through intellectual pursuits—"there is a corresponding relationship between the amount of experience in a complex environment and the amount of structural change in the brain—in other words, learning organizes and reorganizes the brain." Curiosity fuels lifelong learning as it contributes to the quality of life, and to the intellectual capital of the country. Equally as important is risk taking—without which there would be few quantum leaps in discoveries, inventions, and learning.

- **Higher Order Thinking and Sound Reasoning**
  For decades reports have been calling for higher order thinking and sound reasoning in P-12 curricula. The SCANS report, for example, defines thinking skills as "thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn and reasoning." Furthermore, sound reasoning enables students to plan, design, execute, and evaluate solutions—processes that are often carried out more efficiently and effectively using technological tools.

3. Interactive Communication—Social and Personal Skills

- **Teaming and Collaboration**

  The rapid pace of today's society and communications networks have caused—and enabled—a shift in the level of decision-making down to the worker closer to the client or product.. At the same time the complexity of today's world requires a high degree of specialization by decision makers—hence the need for teaming of specialists to accomplish complex tasks in ways that are efficient, effective and timely. Information technology plays a key role in the ease with which individuals and groups collaborate. Email, faxes, voice mail, audio and video conferencing, chat rooms, shared documents, and virtual workspaces can provide more timely, iterative collaborations.

- **Personal and Social Responsibility**

  Emerging technologies of today often present ethical and values dilemmas. As the technical complexity increases, our society needs to advance ethics and values to guide the application of science and technology in society—to manage the use of these powerful tools at the personal, community, and governmental levels. It will be important for students to grasp this responsibility and contribute as informed citizens at all levels.[viii]

- **Interactive Communication**

  In today's wired, networked society it is imperative that students understand how to communicate using technology. This includes asynchronous and synchronous communication such as person-to-person email interactions, listservs, group interactions in virtual learning spaces, chat rooms, MOOs, MUDs, interactive videoconferencing, phone/audio interactions, and interactions through simulations and models. Such interactions require knowledge of etiquette often unique to that particular environment. Information technologies do not change what is required for high quality interactive communications, but it does add new dimensions that need to be mastered so they become transparent; otherwise they may interfere with rather than enhance communication. A few new dimensions introduced through global communication include scheduling over time zones, cultural diversity, and language issues.

4. Quality, State-of-the-Art Results

Hank Levin asserts that, "When it is argued that the prime reason for high standards and high stakes testing is to create a productive workforce for the economy, we should be cautious."[ix] Based on his studies in the 1990s, Levin concluded that how well students do on current tests in no way correlates to how productive they will be in the workforce. High productivity, on the other hand, though currently not a high stakes focus of schools, often determines whether a person succeeds or fails in the workforce.

- **Prioritizing, Planning, and Managing for Results**
  High levels of complexity require careful planning, managing, and anticipating contingencies. This means more than simply concentrating on reaching the main goals of the project or keeping an eye on the project outcomes. It also requires the flexibility and creativity to anticipate unexpected outcomes as well.

- **Effective Use of Real-World Tools**
  Bill Gates' 12th rule for business at the speed of thought, is to "use digital tools to help customers solve problems for themselves."[x]—an idea dependent on ubiquitous, networked communication. Choosing appropriate tools for the task and applying them to real-world situations in ways that add significant value results in increased collaboration, promotion of creativity, construction of models, preparation of publications and other creative works.[xi] Doug Henton[xii] describes three types of knowledge important to today's economy: Know-what, Know-how, [v] and Know-who. He suggests that while everyone now has access to the Know-what, "what really matters most in the new economy is know-how and know-who."

- **High Quality Results with Real-World Application**
  Researchers are finding learning benefits for students who build authentic products with tools—whether they be sand castles, computer programs, documents, graphs, LEGO constructions, or musical compositions. Such experiences provide students with deep insights into whatever domain of knowledge and whatever tools they use.