A Variety of Perspectives on 21st Century Skill Sets

From: Confronting the Challenges of Participatory Culture: Media Education for the 21st Century.
Henry Jenkins, University of Southern California.
Available: http://tinyurl.com/challengesjenkins

Participatory culture shifts the focus of literacy from one of individual expression to community involvement. The new literacies almost all involve social skills developed through collaboration and networking. These skills build on the foundation of traditional literacy, research skills, technical skills, and critical analysis skills taught in the classroom.

The new skills include:

- **Play** — the capacity to experiment with one’s surroundings as a form of problem-solving.
- **Performance** — the ability to adopt alternative identities for the purpose of improvisation and discovery.
- **Simulation** — the ability to interpret and construct dynamic models of real-world processes.
- ** Appropriation** — the ability to meaningfully sample and remix media content.
- **Multitasking** — the ability to scan one’s environment and shift focus as needed to salient details.
- **Distributed Cognition** — the ability to interact meaningfully with tools that expand mental capacities.
- **Collective Intelligence** — the ability to pool knowledge and compare notes with others toward a common goal.
- **Judgment** — the ability to evaluate the reliability and credibility of different information sources.
- **Transmedia Navigation** — the ability to follow the flow of stories and information across multiple modalities.
- **Networking** — the ability to search for, synthesize, and disseminate information.
- **Negotiation** — the ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms.

From: The Handbook of Emerging Technologies for Learning

George Siemens and Peter Tittenberger
Available: http://tinyurl.com/handbookemerging

Being Literate

Calls for reform to the balance of power between educators and learners have been made by numerous theorists and activists, including Dewey, Friere, and Illich.

In online environments, personal agency on the part of learners - “to influence intentionally one’s functioning and life circumstances” – is particularly important. The cues and guiding elements of physical environments and traditional academic schedules are often lacking online.
New literacies (based on abundance of information and the significant changes brought about by technology) are needed. Rather than conceiving literacy as a singular concept, a multi-literacy view is warranted. Use of aggregators, reading and visualizing data, mashing up various types of information, and recognizing new patterns in existing information are key skills.

**Additional key skills required today include:**

- **Anchoring**
  - Staying focused on important tasks while undergoing a deluge of distractions.

- **Filtering**
  - Managing knowledge flow and extracting important elements.

- **Connecting with each other**
  - Building networks in order to continue to stay current and informed.

- **Being human together**
  - Interacting at a human, not only utilitarian, level...to form social spaces.

- **Creating and deriving meaning**
  - Understanding implications, comprehending meaning and impact.

- **Evaluation and authentication**
  - Determining the value of knowledge...and ensuring authenticity.

- **Altered processes of validation**
  - Validating people and ideas within an appropriate context.

- **Critical and creative thinking**
  - Questioning and dreaming.

- **Pattern recognition**
  - Recognizing patterns and trends.

- **Navigate knowledge landscape**
  - Navigating between repositories, people, technology, and ideas while achieving intended purposes.

- **Acceptance of uncertainty**
  - Balancing what is known with the unknown...to see how existing knowledge relates to what we do not know.

*From: The Partnership for 21st Century Skills*
*Available: http://tinyurl.com/centuryskills*

**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

And perspectives on what that means for teaching and learning...

*From: The Future of Learning Institutions in a Digital Age: Ten Principles for the Future of Learning*

*Cathy N. Davidson and David Theo Goldberg*

*Available: [http://tinyurl.com/futureoflearning](http://tinyurl.com/futureoflearning)*

1. **Self-learning:** is enhanced by online access to multiple information streams, with hyperlinked resources that lead to more learning potential.
2. **Horizontal Structure:** as opposed to top-down learning directed by the teacher, the authors use this term to refer to collaborative learning.
3. **From Presumed Authority to Collective Credibility:** learning is shifting away from assumed authority to one where credibility is determined by communal efforts.
4. **A De-Centered Pedagogy:** “develop a pedagogical methodology based on collective checking, inquisitive skepticism, and group assessment.”
5. **Networked Learning:** “socially networked collaborative learning extends some of the most established practices, virtues, and dispositional habits of individualized learning.”
6. **Open Source Education:** “seek to share openly and freely in the creation of culture, in its production processes, and in its product, its content” using a many-to-multitudes model.
7. **Learning as Connectivity and Interactivity:** connectivity and interactivity enables the creation of learning ensembles where members support and sustain each other, elicit from and expand on each other’s learning inputs, contributions, and products.
8. **Lifelong Learning**
9. **Learning institutions as mobilizing networks:** rethink of what it means to be a learning institution, moving from a rigid traditional system to one that stresses flexibility, interactivity, and outcome, again-think along the lines of adaptability and being nimble.
10. **Flexible Scalability and Simulation**: Learning opportunities should range from small and local to the widest and most far-reaching constituencies capable of contributing the learning process—think of learning unlimited by brick and mortar, but still valuing the daily critical interactions that take place in schools.

*From: The Change Agents*
Technology is empowering 21st Century students in four key areas

Cheryl Lemke and Ed Coughlin
*Educational Leadership*

See articles on Teaching in the 21st Century: [http://tinyurl.com/edlead](http://tinyurl.com/edlead)

1. **Change Agent 1: Democratization of Knowledge**
   Almost unlimited access to information is a game changer.

2. **Change Agent 2: Participatory Learning**
   Connective technologies give rise to collaborative learning opportunities among individuals that are independent of time, space and place.

3. **Change Agent 3: Authentic Learning**
   Access to new authentic contexts for learning is empowered by connective technologies.

4. **Change Agent 4: Multimodal Learning**
   Learners now have access to information presented through a variety of powerful media which have distinct affordances for learning.