THINKING AND ANALYSIS (cont.)

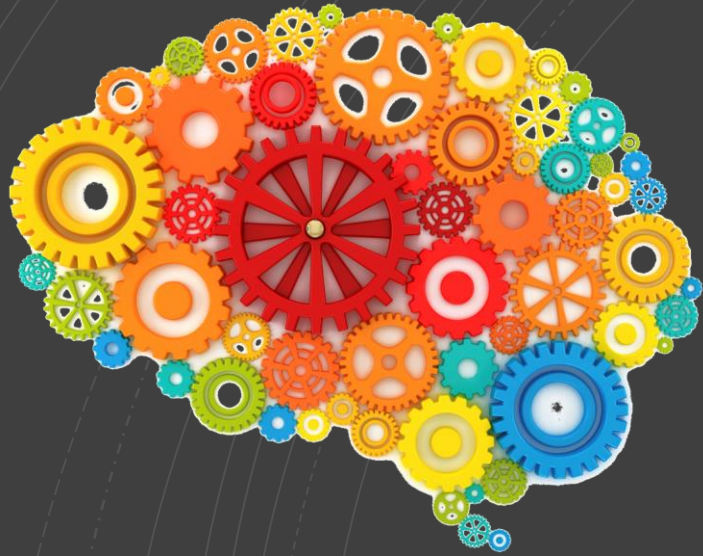# Chapter outlines

THINKING AND ANALYSIS

2. Creative Thinking Skills (cont.)

3. Thinking with Technology

LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Describe the role of creative thinking skills in problem-solving

- Identify technology tools that enhance our learning

- Explain how technology skills relate to critical/creative thinking skills

- Examine online learning in the context of organizing, communicating, reading, and researching online

- Assess our readiness to use technology

▼

Problem-Solving with Creative Thinking

- **Creative problem-solving is a type of problem-solving.** It involves searching for new and novel solutions to problems.
- Unlike critical thinking, which scrutinizes assumptions and uses reasoning, **creative thinking is about generating alternative ideas** - practices and solutions that are unique and effective.
- It's about facing sometimes muddy and unclear problems and seeing **how "things" can be done differently** - how new solutions can be imagined.

Activity
Brainstorming

Project start up "Social initiative":

Discuss in small groups, propose a creative social initiative, to solve any problem our society.

Rules of Brainstorming

IDEO U

Defer Judgment

Encourage Wild Ideas

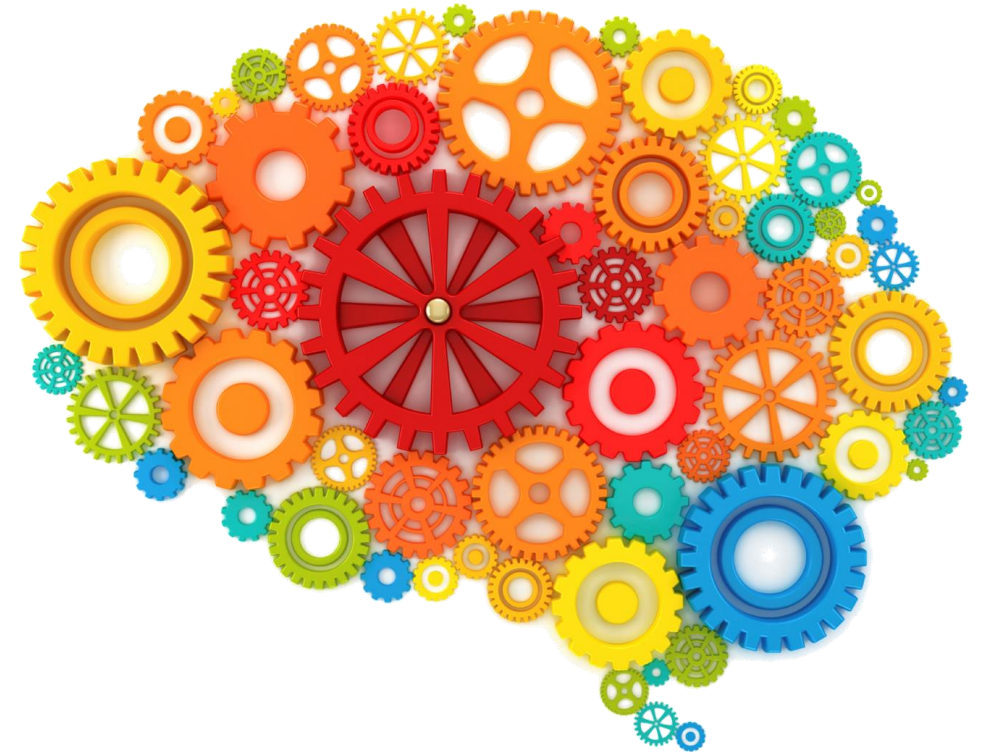Build on the Ideas of Others

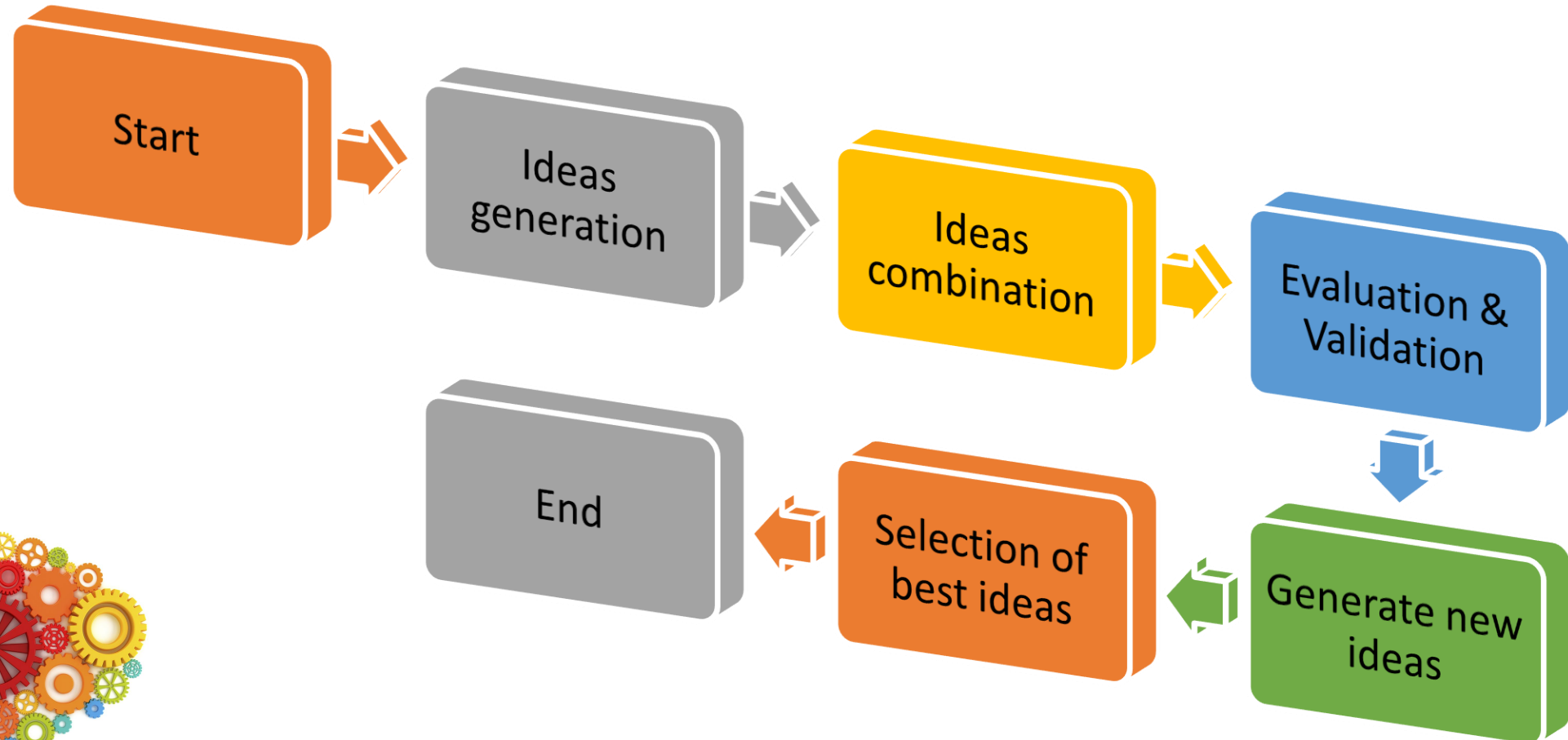Stay Focused on the Topic

One Conversation at a Time

Be Visual

Go for Quantity

Brainstorming technique

3. Thinking with Technology

Benefit of information technology

- It empowers people to do what they want to do.

- It lets people be creative. It lets people be productive.

- It lets people learn things they didn't think they could learn before.

- And so in a sense it is all about potential.

Technology for College Learning

85% of college-bound students say technology in the classroom and the availability of online classes are their top determinants in choosing a college.

"Digital Capabilities at Universities Key to Draw Students." CareerIndia. 28 Nov 2014. Web. 16 Feb 2016.

Discussion

Did technology influence your college decisions?

Critical & Creative Thinking with Technology

- **Computer software** and **Internet resources** allow students to record, defend, and challenge their thinking.

- **Digital camcorders** allow students to observe and analyze the world - to resee and reimagine it in a way that appeals to them.
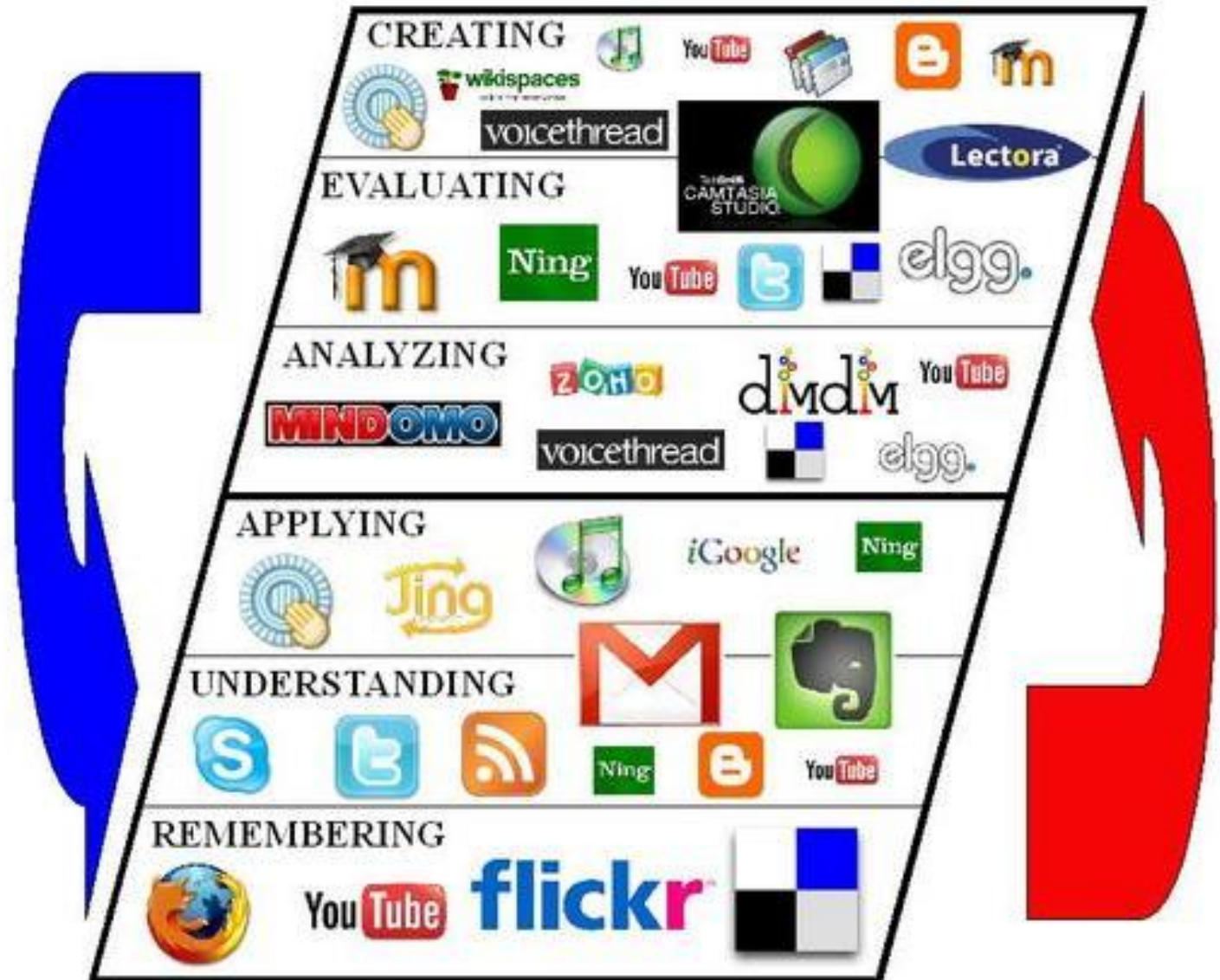
Critical & Creative Thinking with Technology

- **Interactive whiteboards** are helpful for class discussions about ideas or Web content; they facilitate whole-class display and hands-on participation.

- **Student-response systems,** like clickers, allow students to respond to questions and then debate the answers.

Critical & Creative Thinking with Technology

- **Blogs** can serve as personal journals, where students can record, share, and reflect on field experiences and research activities. Students can also use blogs as a preestablished environment for critically responding to assigned readings.

- **Wikis** can help students coordinate, compile, synthesize, and present individual or group projects or research, as well as build and share group resources and knowledge. Wikis can also help students provide peer review, feedback, and critiques.

- **Discussion boards** can help students establish a sense of community with their class and engage in ongoing threaded conversations on assigned readings and topics highlighting diverse points of view.

How different digital technologies can help faculty and students with critical and creative thinking?

It is specially designed to help California's online community college students. (for references)

- **Getting Tech-Ready:**

  https://apps.3cmediasolutions.org/oei/modules/tech/

- **Introduction to Online Learning:**

  https://apps.3cmediasolutions.org/oei/modules/intro/

- **Organizing with Technology**

  https://apps.3cmediasolutions.org/oei/modules/organizing/

- **Communicating with Technology:**

  https://apps.3cmediasolutions.org/oei/modules/communication/

- **Reading and Researching with Technology:**

  https://apps.3cmediasolutions.org/oei/modules/reading/

Mobile Learning and Social Networking

- **Mobile Learning:** By the time the class of 2016 graduates, close to 91.4 percent of U.S. college students will own a smartphone (17 million).

- **Social Networking:** See the eMarketer.com data graph showing the daily time spent on select social networks by U.S. college student Internet users, as of May 2015. Social networking can readily facilitate learning.

Daily Time Spent on Select Social Networks by US College Student Internet Users, May 2015

% of respondents

	Google+	LinkedIn	Pinterest	Twitter	Instagram	Facebook
0-1 hours	92.6%	89.5%	84.4%	73.4%	57.6%	39.3%
2-3 hours	4.9%	7.8%	11.9%	18.1%	24.1%	34.1%
4-5 hours	1.4%	0.6%	2.5%	5.3%	10.3%	15.6%
6-7 hours	0.4%	1.2%	0.0%	2.0%	3.9%	5.8%
8-9 hours	0.4%	0.6%	0.8%	0.4%	2.5%	2.7%
10+ hours	0.4%	0.4%	0.4%	1.0%	1.6%	2.5%

Note: n=514 ages 17-25 who are enrolled in a 4-year college/university; numbers may not add up to 100% due to rounding
Source: Fluent survey conducted by SurveyMonkey, Aug 25, 2015

195987   www.eMarketer.com