Lecture 4

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Creativity is thinking up new things. Innovation is doing new things. -Theodore Levitt (German-born American economist and professor at Harvard Business School)

Lecture 4: Innovation & Creativity

Textbook Reading (Quiz Basis) Chapter 5. Innovation: The Creative Pursuit of Ideas

Lecture Agenda

- Part 1: The Search for New Ideas
- Part 2: Cultivating Creativity

Source: Kuratko (2024)

Chapter 5 Objectives

By the end of this section you should be able to:
- 5.1. Summarize the opportunity identification process
- 5.2. Explain the sources of innovative ideas
- 5.3. Outline the creative process: knowledge, incubation, idea, evaluation
- 5.4. Describe ways of developing personal creativity
- 5.5. Identify the arenas of creativity
- 5.6. Examine the factors for a creative climate
- 5.7. Introduce the four types of innovation
- 5.8. Review myths & principles of innovation

Important Announcements

1. Have you set up a time to have your first mentor meeting?
2. Coordinate with your mentor to determine your podcast recording date. Recording studio slots fill quickly! They must be recorded by **Nov 10th.**
3. Complete the E-IDP survey (via Qualtrics) and assignment (via Canvas) (no graded but still required!).

Part 1 The Search for New Ideas

Opportunity _____

Opportunity _____ is central to entrepreneurship and revolves around three key questions:

- **_____?**
  - Why does this opportunity exist?
  - What problem is being solved, or what unmet need is being addressed?
  - In food and agribusiness, this might mean why consumers are seeking plant-based proteins, local food, or healthier snacks.
- **_____?**
  - When is the right time to pursue it?
  - Are market conditions, technologies, consumer trends, or policies aligning to make it viable now?
  - For example, consumer demand for sustainability and new food technologies made the timing right for innovations like Impossible Foods.
- **_____?**
  - How can the entrepreneur act on this opportunity?
  - What resources, networks, and creative processes are needed to turn an idea into a solution?
  - This includes considering market entry strategies, scaling potential, and implementation challenges.

Together, these questions guide entrepreneurs in moving from vague ideas to actionable opportunities.

Sources of Innovative Ideas

- _____ and _____ environments alert entrepreneurs to opportunities.
- _____ signal shifts in current paradigm (or thinking) of major population.
- Valuable insights constitute source of potential entrepreneurial ideas.

_____

- Societal: Aging demographics, health and fitness growth, senior living
- Technology: Mobile (smartphone) technology, e-commerce, Internet advances
- _____: Higher disposable incomes, dual wage-earner families, performance pressures
- Government: Increased regulations, petroleum prices, terrorism

Activity 5-1

Each table has been given an **object** (from my house).

Your task:
1. Think about the object in front of you.
2. Identify the **trend** (societal, technology, economic, or government) that may have inspired its innovation.
3. Be ready to share your reasoning with the class.

Sources of Innovative Ideas

Source	Examples
Unexpected occurrences	Unexpected success: Uber
Incongruities	Overnight package delivery (FedEx)
Process needs	Sugar-free products, caffeine-free coffee, microwave ovens
Industry and market changes	Health care industry: changing to home health care
Demographic changes	Retirement communities for older people
Perceptual changes	Exercise (aerobics) and the growing concern for fitness
Knowledge-based concepts	Mobile (smartphone) technology, pharmaceutical industry, robotics

Definition: _____

_____ exist in the gap between expectations and reality.
They occur when results differ from what is anticipated, when processes no longer match current needs, or when assumptions about markets, customers, or technology conflict with actual outcomes.

The Knowledge and Learning Process

- Entrepreneurs use their existing knowledge base acquired through work, experience, and education to hone ideas into actual opportunities.
- Entrepreneurs must be able to learn from their experiences as well.

Sources of Innovative Ideas into Potential Opportunities

Ideas are distilling into opportunities through:

- Personal work, experience, and education
- General industry knowledge
- Prior market knowledge
- Prior customer understanding
- Specific interest knowledge
- Previous knowledge

Activity 5-2

- Consider your area of expertise.
- What aspect of your knowledge might give you unique insights for entrepreneurial opportunities? Would this be experience, market knowledge, customer understanding, etc.?
- Share your insights with the class.

Entrepreneurial _____ and _____

- Creative thinking is blended with _____ in a logical process.
- Entrepreneurs develop an ability to see, recognize, and create _____ where others find only problems.
- Entrepreneurial analysis blends creative thinking with systematic inquiry to look at problems from every angle.

Two Approaches to Creative Problem Solving

People approach creativity and problem solving in different ways.

Some individuals act as _____, improving and refining existing systems.

Others operate as _____, challenging assumptions and pushing for change.

In the next slide, we'll take a short questionnaire to help you reflect on your own natural style.

Adaptor–Innovator Questionnaire

For each row, check the statement that feels **most like you**.
Count how many times you select _____ versus _____.
The column with more responses shows your natural style.

#	Adaptor	Innovator
1	[ ] I employ a disciplined, precise, methodical approach	[ ] I approach tasks from unusual angles
2	[ ] I focus on solving problems rather than finding them	[ ] I discover problems and avenues of solutions
3	[ ] I attempt to refine current practices	[ ] I question basic assumptions about current practices
4	[ ] I tend to be means-oriented	[ ] I care more about ends than means
5	[ ] I am capable of extended detail work	[ ] I have little tolerance for routine work
6	[ ] I am sensitive to group cohesion and cooperation	[ ] I have little need for consensus and can be insensitive to others

Scoring

- **More Adaptor answers** → You prefer structure, precision, and improving existing systems.
- **More Innovator answers** → You thrive on novelty, questioning assumptions, and taking unconventional approaches.
- **Balanced** → You may flex between both roles depending on context.

Source: Kirton (1976)

The Nature of the Creative Process

_____ is a process that can be developed and improved.

Some individuals have a greater aptitude for creativity than others. → That's OK!

Typical _____ Process:
- Phase 1: Background or knowledge accumulation
- Phase 2: The incubation process
- Phase 3: The idea experience
- Phase 4: Evaluation and implementation

Phase 1: Background or _____ Accumulation

- Often involves extensive reading, conversations, attending meetings and workshops, etc.
- Additional inspirations for knowledge are joining groups, travel, develop a library, record useful information, pursue natural curiosities.
- _____ _____ is the process of studying consumer trends, supply chain shifts, policy changes, and competitor strategies.
  - Helps identify unmet needs and areas where innovation can create value

> Example: Patrick O. Brown and Impossible Foods
>
> Patrick Brown, a professor of **biochemistry at Stanford**, had deep knowledge of molecular biology and the role of proteins. He studied the environmental impact of industrial meat production and identified a global challenge: how to replace animals as a food-production technology.

Source: Mallaby (2022)

Phase 2: The _____ Process

- Allow your subconscious to mull over all the information gathered.
- Some steps to induce incubation are routine activities, exercise, play sports or board games, think of it while falling asleep, meditate.

> Example: Patrick O. Brown and Impossible Foods
>
> During a sabbatical, Brown began reflecting on alternatives to animal agriculture. He let the idea "simmer," drawing from his scientific background while considering how consumers think about food and flavor.

Source: Mallaby (2022)

Phase 3: The _____ Experience

- This is the "eureka factor" when the idea or solution is discovered.
- Sometimes this comes in one moment, sometimes the solution evolves over time.
- There is often an overlap between Phase 2 and Phase 3.

Example: Patrick O. Brown and Impossible Foods

Brown realized that the key to meat's taste lay in **heme**, a molecule abundant in animal muscle but also present in plants. His insight: engineer plant-based heme to replicate the flavor of meat without animals.

Source: Mallaby (2022)

Phase 4: Evaluation

- Most difficult step and requires courage, self-discipline, and perseverance.
- Often need to rework idea from Phase 3; fail sometimes before they find their best idea.
- Can test idea, seek advice, etc.

Example: Patrick O. Brown and Impossible Foods

He founded Impossible Foods, built a team of scientists, and tested prototypes with chefs and consumers. After many iterations, the company launched its first products, facing both skepticism and excitement before scaling into restaurants and grocery stores worldwide.

Source: Mallaby (2022)

Part 2 Cultivating Creativity

Recognizing Creative Opportunities

Recognizing _____ and developing a _____ perspective are both mental tools that entrepreneurs use to see opportunities others overlook.

They explain the mindset shift needed to move *from* incremental thinking ("this object does what it's supposed to do") → *to* creative opportunity recognition ("this object could also do X, Y, or Z").

Recognizing Relationships

Entrepreneurs can spot hidden or unusual relationships (e.g., a chair isn't just for sitting, it can also serve as a ladder or a barricade).

- Look for **unorthodox** _____ between elements and people around you
- This is *"perceiving in a relational mode"*
- View things and people as existing in either a _____ (working together) or contrasting/_____ (pushing against each other) relationship.

Developing a Functional Perspective

They adopt a functional perspective (asking, "How else could this thing meet a need or solve a problem?").

- View things and people in terms of how they can **satisfy needs** or **help complete a project**

- Think in **nonconventional ways** and from different perspectives
- Shift your mindset from "what it is" → "what it could be"

Activity 5-3

Take the **household item at your table**.

Instructions:

1. Write down as many **alternative functions** for this item as you can (not its most obvious use).
2. Spend about **5 minutes** brainstorming freely. Be creative! No idea is too wild as long as it's appropriate.
3. During discussion, let's enjoy the creativity and accept all ideas without judgment.

Goal: Practice looking at familiar objects from fresh perspectives, just like entrepreneurs do when they identify opportunities.

Idea Killers

- "Naah."
- "Can't" (said with a shake of the head and an air of finality).
- "That's the dumbest thing I've ever heard."
- "Yeah, but if you did that . . ." (poses an extreme or unlikely disaster case).
- "We already tried that—years ago."
- "I don't see anything wrong with the way we're doing it now."
- "We've never done anything like that before."
- "We've got deadlines to meet—we don't have time to consider that."
- "It's not in the budget."
- "Where do you get these weird ideas?"

Improv Lesson from Tina Fey

In improv, creativity comes from building on each other's ideas. The same mindset can help entrepreneurs and teams unlock innovation.

Core Rules of Improv

1. **Yes, and...** — Accept what's offered and add to it.
2. **Make your partner look good** — Success comes from collaboration.
3. **Commit fully** — Go all in, even if you're uncertain.
4. **Embrace mistakes** — "Failures" often spark the best ideas.

Reflection

- How might these rules apply to brainstorming or team problem solving?
- Which rule feels hardest for you? Why?

Mental Habits that Block Creative Thinking

"Muddling mindsets" that hinder creativity:

- **Either/or thinking**: seeing only two options and ignoring alternatives; a concern for certainty
- **Security hunting** (or _____): always seeking safety and avoiding risk; unwilling to explore the unknown
- _____: reducing people or situations to oversimplified categories; abstracting reality
- **Probability thinking**: focusing only on what is most likely to happen; seeking predictable results and missing outliers

Exercises to help eliminate the muddling mindset:

- Take small risks
- Talk with people outside stereotypes
- Try ambiguous projects
- Focus on positives first
- Simply listen
- Decide in the present

Arenas of Creativity

People are inherently creative.

Some act on it all of the time. Others stifle it.

Places where creativity is channeled — and how we practice them in this course:

1. _____ **Creativity** — Thinking up new concepts (case studies, business competition).
2. _____ **Creativity** — Inventing and building tangible objects (podcast).
3. **Organizational Creativity** — New ways to structure things (pod teams, podcast workflow).
4. _____ **Creativity** — Innovative approaches to collaboration (mentor meetings, group work).
5. **Event Creativity** — Producing something with vision (final business competition event, class activities).
6. **Inner Creativity** — Changing yourself, being open to new approaches (**E-IDP!**).
7. _____ **Creativity** — Acting in the moment (case discussions).

Creative Climate

Earlier, we discussed the **corporate philosophy of creating an entrepreneurial environment**. These conditions make it easier for creativity to thrive:

- **Trustful management** that empowers rather than overcontrols
- **Open communication** among all members
- **Connections with outsiders** to bring in fresh perspectives
- **Variety of personalities** and viewpoints
- **Willingness to accept change** and experiment with new ideas
- **Low fear of mistakes** — failures are part of learning
- **Merit-based promotion** and recognition
- **Idea-friendly techniques** like suggestion systems and brainstorming
- **Adequate resources** (financial, managerial, human, and time) to pursue goals

Innovation and the Entrepreneur

The creative process generates ideas and refines them.

Innovation is what happens when that creative process is applied to opportunities.

In other words, creativity fuels the process, and innovation is the outcome entrepreneurs bring to market.

Innovation is:

- Is the process by which entrepreneurs convert opportunities (ideas) into _____ _____.
- Is a combination of the vision to create a good idea and the _____ and _____ to remain with the concept through implementation.
- Is a key function in the entrepreneurial process.
- Is the specific function of entrepreneurship.

The Innovation Process

- Most innovations result from a **conscious, purposeful search** for opportunities
- Uses both the **right** (imagination, synthesis) and **left** (analysis, logic) sides of the brain
- Entrepreneurs study both **figures** (data) and **people** (users, markets)

- Successful innovations are **simple, focused, and application-driven**
- In the process, they often **create new customers and markets**

Types of Innovation

- **Invention** — creation of a new product, service, or process
- **Extension** — expansion of something already in existence
- _____ — replication with a creative twist or improvement
- **Synthesis** — combining existing concepts into a new whole

Type	Description	Examples
Invention	Totally new product, service, or process	Wright brothers — airplaneThomas Edison — lightbulbAlexander Graham Bell — telephone
Extension	New use or different application of an already existing product, service, or process	Ray Kroc — McDonald'sMark Zuckerberg — FacebookBarry Sternlicht — Starwood Hotels & Resorts
_____	Creative replication of an existing concept	Walmart — department storesGateway — personal computersPizza Hut — pizza parlor
Synthesis	Combination of existing concepts and factors into a new formulation or use	Fred Smith — FedExHoward Schultz — Starbucks

The Major Misconceptions of Innovation

- Innovation is planned and predictable.
- Technical specifications must be thoroughly prepared.
- Innovation relies on dreams and blue-sky ideas.
- Big projects will develop better innovations than smaller ones.
- Technology is the driving force of innovation success.

Principles of Innovation

Principles of Innovation
Be action oriented
Make it simple and understandable
Make it customer based
Start small
Aim high
Try / test / revise
Learn from failures
Follow a milestone schedule
Reward heroic activity
Work, work, work

Principles of Innovation & E-IDP Connections

Principles of Innovation	Related E-IDP Characteristic(s)
Be action oriented	Drive to Achieve, Entrepreneurial Hustle
Make it simple and understandable	Communication, Vision
Make it customer based	Opportunity Orientation, Communication
Start small	Calculated Risk Taking, Tolerance for Ambiguity
Aim high	Passion, Determination and Perseverance, Vision
Try / test / revise	Persistent Problem Solving, Seeking Feedback, Entrepreneurial Coachability
Learn from failures	Personal Agency (Internal Locus of Control), Entrepreneurial Coachability
Follow a milestone schedule	Determination and Perseverance
Reward heroic activity	Team Building, Communication
Work, work, work	High Energy Level, Determination and Perseverance

Summary

- 5.1. Summarize the opportunity identification process
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