



## Reel Entrepreneurs: Illustrating Entrepreneurship with Feature Films

Dr. Zbigniew J Pasek, University of Windsor

Dr. Pasek received his PhD from the University of Michigan (1993). He is currently an Associate Professor in the department of Industrial and Manufacturing Systems Engineering at the University of Windsor, Canada. His interests include industrial automation, health care, service engineering and informal engineering education. He is a member of ASEE, ASME, SME and IEEE.

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We all learn in a number of different ways and the learning process can be facilitated through the use of variety of viewpoints and media. Thus to reach everyone, a variety of instructional methods is used, each leaving a different “mental footprint.” The “cone of experience” indicates that people generally remember only about 10% of what they read, but 30% of what they see.

In introducing entrepreneurial concepts to engineering students, in particular content that is difficult to describe analytically because it involves a variety of human actions, useful enhancement is the use of video material to illustrate some practical situations and settings. Feature films can offer a trove of ideas that can be very impactful, if used selectively and judiciously.

Portrayal of certain professions in the popular media has a deep and lasting effect not only on general public's understanding of these professions (with all potential misconceptions and attitudes), but also has an impact on future career choices. While movie screens and television shows put a spotlight on lawyers, doctors and policemen (and occasionally also on forensic scientists), they only occasionally pick entrepreneurs as the characters of interest.

This paper identifies and reviews a number of known and available portrayals of entrepreneurs in feature films. A brief selection of titles is included. A few examples are analyzed in more detail.

For example, *The First \$20 Million Are Always the Hardest* (dir. M. Jackson, 2002) tells a story of an engineering team pursuing development of \$100 computer, initially within a corporate setting, and then striking it on their own. It richly illustrates the entrepreneurial spirit in a business startup, teamwork, legal issues, and creativity.

Another great entrepreneurial story is told in a Japanese feature film *Tampopo* (dir. J. Itami, 1985), which follows trials and tribulation of a widow determined to improve her fledgling noodle shop. With the help of a newly found mentor, a truck driver, she goes through the basic steps of rebuilding her business, succeeds in improving her food and wins hearts of her customers.

The paper also assesses specific character and professional attributes, stereotypes (profession-, ethnicity or gender-based) and attributes known to facilitate viewer's identification with on-screen characters, of entrepreneurs portrayed in selected films.

## **Introduction**

Use of feature films as educational material is not entirely new<sup>4</sup>. Both feature and documentary films have been used as teaching and learning resources in a variety of disciplines, including psychiatry<sup>19</sup>, history<sup>13</sup>, anthropology and cultural studies<sup>2</sup>, law<sup>3</sup>, medicine<sup>1</sup>, management<sup>4,5,7,10,11</sup> and perhaps others. Film as a teaching medium has found wide use in corporate training programs.

Recent fast proliferation of film as a teaching tool is partially due to progress in media technology and growing availability of a large body of films. Movies available for rental from video stores currently include over 25,000 titles and include broad genres of filmmaking in a variety of formats.

Educators have explored the use of film medium to support teaching since the 1970s, with the advent of the first portable video recording devices. Most recent transition from VHS tapes to DVDs and on-going transition to digital formats available on the internet have further accelerated this process.

First and foremost good feature films are enjoyable, entertaining and readily understandable. Coordinated effort and talents of screenwriters, directors, cinematographers and actors delivers visual portrayals of life that can be both memorable and thought-provoking. As such, they can easily trigger discussion and provide useful counterbalance to more traditional ways of teaching. Since the characters in the movies are not real, learners can be more honest in their reactions than they would normally be in discussion actual situations. This is a unique effect of displacement, which allows the viewer to be simultaneously emotionally involved in a situation, and yet maintain distance enabling objectivity<sup>4</sup>.

The growing interest of academic community in entrepreneurship taking place in the recent decade is worth noting, not only because professors exhibit highly entrepreneurial traits in search of funding sources, but also because of the proliferation of entrepreneurship-focused degree programs around the world. While most of those programs are at the graduate level, undergraduate-level offerings also start to appear, not to mention an injection of entrepreneurial concepts in the undergraduate education.

The popular culture also seems to respond to that growing interest in entrepreneurship favorably. A number of television reality shows feature entrepreneurs pitching their business ideas to win investment financing from a panel of venture capitalist. While original show idea ([http://en.wikipedia.org/wiki/Dragons\\_Den#Japan](http://en.wikipedia.org/wiki/Dragons_Den#Japan)), called “Tiger of Money” was conceived in Japan in 2001, it was then adopted for the UK audiences by BBC as “Dragon’s Den,” and then quickly adopted for local tastes in over 25 countries (in the US it runs as “Shark Tank” on ABC).

Yet while the surge of interest in entrepreneurship seem to be somewhat fueled by “getting rich quick” association, general public’s understanding of entrepreneurship and its contribution to the well-being of society is fairly limited. Exemplary successes of individual entrepreneurs are commonly admired, but high level of personal sacrifice and failure rates go usually unmentioned.

## **How Do Films Fit in the Teaching/Learning Process?**

As already pointed out, the use of films/video, and feature films in particular, has been discussed by number of authors<sup>1,2,3,4,5,7</sup>, who have focused on the advantage of use when illustrating

complex concepts. The link to the teaching concepts and theories, while exists has not yet been strongly supported by results of empirical studies. One of the earliest concepts, proposed by Edgar Dale<sup>6</sup>, is a “cone of experience,” which today can be referred to as “experiential learning.” Dale theorized that depending on the particular teaching approach used the learner would retain more information depending on how engaging the material presentation was. Dale’s work implied that people generally remember only about 10% of what they *read*, 30% of what they *see*, 50% of what they *see and hear*, 70% of what they *say and write*, and 90% of what they *do* as they perform a task. Thus use of films in the teaching process seems to have a solid potential of increasing knowledge retention rates, when learning is additionally enforced by emotions.

On the other hand, there is an ongoing discussion of how learners actually absorb the material, which has led to development of various learning style models<sup>18</sup>, such as, for example, Visual-Auditory-Kinesthetic (VAK) model or Gelb’s Learning Inventory model. In general, these models are rooted in cognitive psychology and refer to absorbing and processing information. However, the learning styles concept is not strict and not mutually exclusive. While a person may have a preferred learning style, may also mix them together to achieve most fitting combination for a particular event.

The author has included the learning styles surveys in his engineering classes as one of the self-discovery tools that may help students in understanding their strengths and weaknesses. A survey based on the VAK style used consistently in the 2<sup>nd</sup> year class yielded the results shown in Fig. 1 and Table 1, which summarized self-reported learning styles identified by students.

	V	A	K
V	0.27	0.09	0.19
A		0.07	0.07
K			0.31

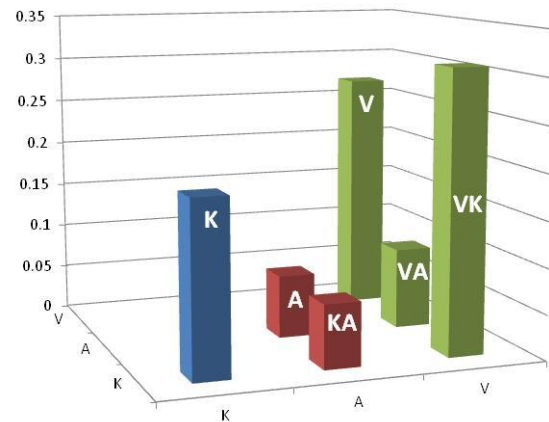


Table 1 Distribution of Self-Reported Learning Styles in an Engineering Class [%]

Figure 1: Distribution of Self-Reported Learning Styles in an Engineering Class

The presented results are consistent with annually repeated surveys, that among future engineers visual style and its combinations with other styles (e.g., VA and VK) account for over 65%. Kinesthetic style (learning by doing) and its combination also has a strong showing (almost 60%).

These results, combined with the “cone of experience” approach would indicate that perhaps engineering students are potentially a good target audience, with which use of film as a teaching tool can be quite effective.

## Census of feature Films Featuring Entrepreneurs and Their Work

Some preliminary work has already been conducted by the author and results have been successfully integrated into teaching practice. It is suspected, however, that a pool of potential candidate films is much broader (in particular if foreign-made films are also considered) and should be further and more thoroughly explored. Consideration of foreign movies is important considering globalization issues. A small sample of feature films and corresponding entrepreneurial-relevant themes is shown in Table 2.

**Table 2:** Example set of feature films illustrating key entrepreneurial issues

Title	Director, year	Issues for discussion
The Godfather	F. Coppola, 1972	Family business, barriers of entry,
<b>The Social Network</b>	D. Fincher, 2010	Start-up organization, new market identification, entrepreneurship, persistence, creativity, IP, social enterprise
The Ghostbusters	I. Reitman, 1984	Creating a compelling product, startup financing, finding your first office space, marketing snafus
<b>Pirates of Silicon Valley</b>	M. Burke, 1999	Leadership, teamwork, groupthink, rules vs. judgment, culture clash, competition, marketing of new ideas
Kinky Boots	J. Jarrold, 2005	New market search, leadership, manufacturing
<b>Tampopo</b>	J. Itami, 1985	Entrepreneurship, culture issues
<b>The First \$20 Million Are Always the Hardest</b>	M. Jackson, 2002	Business startup, teamwork, legal issues, creativity
Tucker	F. Coppola, 1988	Technology and organizations, design and manufacturing, bureaucracy vs. entrepreneurship
<b>Baby Boom</b>	C. Shyer, 1987	Life-work balance, creativity, teamwork, leadership, exit strategies.
High Fidelity	S. Frears, 2000	Life-work balance, creativity, leadership, exit strategies.

Below are brief summaries of selected movies from Table 2, which may help to provide some details on the storyline and related entrepreneurial issues.

**Baby Boom:** J.C. Wiatt (Diane Keaton) is a successful New York City businesswoman, and a workaholic. Her life is thrown into a tailspin when she learns that she has inherited an infant from a distant relative who has passed away. Unable to keep up her demanding career with a child at home, she moves from the city to the country, but experiences a nervous breakdown amid many problems, including financial collapse. She sees an opportunity to sell baby food

applesauce she had concocted for the made from fresh ingredients, and starts a booming business that unexpectedly takes off. On the brink of a buyout offer, she decides to decline it and grow the company further on her own.

Issues for class discussion: creativity, teamwork, leadership, exit strategies, life-work balance.

**The Social Network:** Inspired by the biography of the world's youngest billionaire and Facebook founder and CEO, Mark Zuckerberg. didn't get to that point without making a few enemies along the way. From a Harvard dorm room to the courtroom, The film is based on the Facebook creator's (played by Jesse Eisenberg) trials and triumphs as he builds the social network into the billion-dollar empire. Though the Zuckerberg and early circle of describe the storyline as completely fictional, the saga does come with a valuable warning to young entrepreneurs about how easily fame and fortune can jeopardize personal relationships..

Issues for class discussion: creativity, teamwork, leadership, intellectual property issues, organizational transformations of a start-up company.

**Pirates of Silicon Valley:** This film, originally made for TV, drama shows the initial rivalry between Apple and Microsoft as Steve Jobs (Noah Wyle) and Bill Gates (Anthony Michael Hall) both brilliant geeks, who begin to build their technology empires in the 1980s. Though the film is fictional, it does translate an intense competition between two protagonists, and how they constantly feed off that rivalry. Considering that the real Steve Jobs and Bill Gates have achieved top recognition in their industry, the movie emphasizes at least one essential point: Competition, while stressful is not hurtful, as it also helps to refine ideas, leading to better products..

Issues for class discussion: leadership, teamwork, groupthink, rules vs. judgment, culture clash, competition, marketing of new ideas.

**The First \$20 Million Are Always the Hardest:** the main character gives up a cushy marketing job to pursue more fulfilling R&D job. He is assigned to lead a doomed-to-failure project developing a PC that will sell of \$99. Not having available necessary resources he puts together a team of unassigned (read: difficult to deal with personalities) employees and partially succeeds only to see his effort stolen away by his envious boss, who trapped him to sign a non-exclusive patent waiver. Nevertheless, the team does not give up and comes up with a number of breakthrough solutions (eliminating the need for hard drive, RAM, and other peripherals). A prototype is created, but it crashes, is ugly and the price is still too high. More innovations are needed and the team stands up to the task, creating a computer operated by virtual glove and new look designed by the next-door artist.

Issues for class discussion: entrepreneurship, creativity, diversity, leadership, teamwork, computer and software engineering.

**Tampopo:** The key character is a widow, running an inherited noodle shop. Unfortunately, her noodles are not very good and customer complain to the point of harassment. When a passing truck driver stands up in her defence, she asks him to become her teacher. They decide to turn her establishment into a paragon of the "art of noodle soup making." Her mentor takes her around and points out the strengths and weaknesses of her competitors. When she still cannot get the broth just right, he brings in the "old master" (Yoshi Katō) and his superlative expertise.

They also steal the best recipes and cooking secrets from their competitors. In the end, the remodeled restaurant brings in a lot of satisfied customers.

Issues for class discussion: leadership, mentorship, work ethics, service value, market competition.

### **Educational Approaches**

A number of teaching strategies can be explored using film and film clips. Most commonly movie material can be shown to stimulate group discussion (but groups should be small). In this approach material is shown to the group and the trigger questions are posed either before or after the viewing. These questions need to be focused and tailored to the particular teaching goals to eliminate any potential runaway discussions, which may be inadvertently triggered by the detail-rich film material. Another alternative is to use the whole movies or clips as assignments, allowing for individual exploration of a particular concept or issue, and summarizing the result in a written form.

Film materials can be worked into a course structure in a number of different ways, such as, for example:

- A case study: case analysis is the most natural form as it is based on the film narrative which can provide rich amount of details (*Tampopo* – understanding market competition, *Kinky Boots* – factory survival under pressure to identify new product, *Tucker* – business case for automobile designer, *The First 20 Million* – organization of a start-up company)
- Experiential exercise: some situations depicted in films can form a basis for experiential exercises, in which student can track, for example, a decision-making process and explore different decision scenarios based on their own preferences (*The Godfather* – problem of the market dominance, *High Fidelity* – risk vs. reward decision making).
- Cultural experience: films create an opportunity of exposure and insight to situations and environments that are much different than our own (*Tampopo* – Japanese executive lunch and work habits, also in *Kinky Boots*).
- Meaning and metaphor: film is an excellent medium for providing meaning to theories and concepts (*Kinky Boots* – manufacturing and product development); metaphors clarify complex concepts, make them less abstract and offer insight (*Metropolis* – factory as a monster).

### **Student Response**

Some of the films listed in Table 2 have been successfully incorporated into the curriculum in graduate-level classes taught by the author<sup>16</sup>. With growing class sizes and tight class schedule it is rather difficult to include full movie viewing during class time, so only selected clips are shown instead. Full feature film reviews are assigned as homework and occasionally also used for in-class discussions.

Overall, the students exposed to the use of film as additional class material have a very positive reaction, underscoring the fact that such experience allowed them to take a fresh look at some of the movies they have seen before, but also anchor concepts that initially were perhaps too vague or abstract.

In one of the 2<sup>nd</sup> year undergraduate classes taught by the author, on *Engineering Management and Globalization*, the film *The First \$20 Million* was used as a case study, which would also highlight the multiple steps in product development process. The film viewing was arranged for the whole class, which was also aware of the homework assignment, in which they had to:

- Describe the main business idea, its evolution and implementation. Using Michael Porter's five competitive forces model<sup>17</sup> define strategy used in the film.
- Identify the core team members in the film. Using stages of team development model: forming – storming - norming - performing -adjourning summarize the team evolution and progress through each stage.

The students were allowed to work in groups and discuss the assigned issues. They were quite successful in identifying the correct answers and these group discussions enforced the key notions of entrepreneurship, which up to this point were rather theoretical; they also allowed the students to categorize their own effort (students work in teams on a term-long project involving product development for a global market) as entrepreneurial. As one student wrote:

*“...the film is illustrating how quickly a design becomes obsolete, how competitors will work on improving and capitalising on a new design, and how the market is rapidly changing. I believe the film is trying to deliver the message that design and engineering is a fast paced, never ending cycle and that a ‘good enough’ approach cannot be taken in order to be successful.” (Peter B.)*

### **Sensitive Cultural Issues**

For most part, almost all of the films listed in Table 1 show and discuss many of adult themes. To avoid any unexpected student reactions, especially in large classes, where diversity of student background is high, the showings should be preceded by at least a warning about potential exposure to controversial subjects, and better yet, by some cultural introduction (that is particularly important to address when international students are a majority).

### **Copyright Issues**

It is broadly believed that the use of movies for the purpose of teaching is protected under the Fair Use Doctrine. This legal construct, as written in the US Copyright Code (Title 17, section 107) 14 enables use of copywritten materials to be used for educational purposes. While tempting, due to technical simplicity and convenience, copying films either entirely or in extended clips, should be avoided as it may constitute copyright infringement. Also, different rules may apply to off-air taped materials and use of films in fee-based workshops or training<sup>4</sup>.

### **Advantages and Disadvantages of Educational Film Use**

Films are a very familiar medium to contemporary students, and that helps to maintain student interest in class subject. As argued by Johnson<sup>12</sup>, introduction of increasingly complex content in television shows and movies, improves our cognitive and decision-making abilities, even though it is often times difficult to evidence.

Films offer both cognitive and affective experiences. They can induce good discussion, assessment of individual's values, and self-assessment when viewing content with strong emotional impact. Time constraints limit broad use of film in the classroom and require well-



structured session organization; it may also require forewarning of viewers of sensitive content. Also use of foreign films may meet student resistance due to a need of subtitle reading. There is also a likelihood that some cultural subtleties of the context will be missed or misunderstood.

Proper analysis of the films requires at least rudimentary understanding of film theory and film techniques (language). Non-humanities students usually do not have such a background and have to become aware of the potential emotional impact films may have on them. They also often fall short on analysis, because of their own ability to express their thoughts on subjects that may be remote from their professional interests.

Films should not be used in the classroom as stand-alone devices. Despite all of the interesting and relevant content, any potential viewers should be aware that movies, as part of the popular culture can operate using stereotypes<sup>8,9</sup>, or distort the truth to serve a political agenda.

## Summary

This paper advocates for the use of feature films as great teaching resources. It highlighted some of the issues of film use in classroom context (both positive and negative) and provided some common strategies: films can be used for case studies, experiential exercises or expose them to different cultural settings. Examples of feature films with content relevant to entrepreneurial were also provided.

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