

# Classification of Mobile Micromovies

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## Abstract

*Mobile micromovies are a new, emerging art form. We study their possibilities and restrictions via identifying different classes of micromovies. Our analysis is based on the material from a script competition. We have used scripts instead of completed micromovies to minimize the effects of the current technical limitations in implementation and thus to get a better view of the near future of this new media.*

## 1. Introduction and research setting

"Micromovie" is a general term for multi-faceted small-scale movies that can be viewed with various mobile devices [1]. The definition, as well as the art form itself, is not fully established. Although mobile downloading, capturing and viewing of video material are already technically possible with some mobile terminals, it is still unclear how this medium will be utilized in the future and what exact forms will it take. This paper seeks answers to these questions by identifying different categories of mobile micromovies, and considering them in relation to the special features of mobility and mobile terminals.

This research is based on the analysis of submissions to a screenwriting contest for mobile devices. One of the authors was an organiser of the contest and he and another author were members of the jury. The contest was possibly the first of its kind as it specifically called for scripts for micromovies that were designed to be shown in a mobile device. There have been micromovie competitions before ([1], [2]), but their submissions had to be finalized movies, whereas this competition was meant for scripts only. This made it possible to submit ideas that cannot be implemented with current technology, but presumably

can be implemented in the near future. To emphasize this degree of freedom, the participants were encouraged to innovatively exploit the special features of mobile devices or creatively evade their limitations. Thus the submitted material lets us explore the possible future of the micromovie.

The winners of the competition well represent the great variety of ideas that were received. In the winning script, in order for the micromovie to make sense, the user was "forced" to turn around and shake the mobile terminal. The winner of the second prize used the user's personal data from the mobile terminal and adapted the story of the film according to that data. The third prizewinner was a series of educational short films that one could order from a network service; one could also order additional material, such as related ringing tones. A honourable mention was given to a "traditional" micromovie: a short, simple humoristic story that included very few visual elements.

Classification of movies has been traditionally examined by genre theories [3]. The genre classification for cinema has grown to its present state in a slow process [4]. For micromovies, this process is just about to start.

In this research we focus on micromovies that are designed and created by someone else than the end user. Another interesting group of micromovies are shots created by mobile device users for their own use, such as documenting a snowboard trick or a baby's first steps [5]. Genres of this type have been explored in [6]. Their integration into our classification should be the subject of a future study.

## 2. Classification of the micromovie

Based on our analysis of the competition material, we have derived two ways to categorize micromovies:

1. the level of personalization the micromovie has,
2. the functional purpose of the micromovie.

## 2.1. Classification using level of personalization

The traditional cinema is made for large audiences. It is not personalized. The user is required to come to the theatre at the correct time and look at the screen and keep her eyes open. There have been some experiments with interactive cinema but generally the viewer has no authority over the events on the screen. In broadcast television there are shows that give the watchers an opportunity to vote how the movie should continue. Micromovies are shown in mobile terminals that usually have very sophisticated input equipment suitable even for playing computer games. The viewing experience of micromovies in cellular phones is rather private. These features provide micromovies more opportunities for a higher level of personalization.

We have recognized three different types of personalization in our material:

1. no personalization,
2. predefined alternatives, and
3. personalized.

The majority of the studied material (91 out of 110) belongs to the first category, as they did not use any personalization. Similar to traditional movies, most scripts had a narrative that was always the same for all viewers and in all situations. In this sense they were traditional movies scaled down to a small screen.

The second and third categories utilize the techniques of interactive narrative [7] in presenting the story to their viewer. The second personalization type includes micromovies in which the creator of the movie has predefined options and the user is able to control the micromovie by making selections from those options. These micromovies may have a limited number of alternative endings, depending on the user personalization or user data gathered from the mobile terminal. For example, the user might be able to select a happy or a sad ending to a story. A total of 12 of the micromovies belonged to this group. When the micromovie uses this type of personalization, the viewing experience for the same movie is different, based on the selections made by the user. On the other hand, the options and selections provided for all viewers are the same.

A few micromovies (7) were highly personalized. These movies used information about the viewer to personalize the movie according to the characteristics of the user. Parts of the movie, or even the whole movie, were generated from the user data. The personal information could be directly asked from the

user or automatically extracted, for example from the calendar of the phone or user profile. These movies are thus personalized to be different for each viewer. Also, if the movie uses personal information that is dependent on the context of the user, such as location parameters or calendar entries, the movie can be different for the same user at different times. This personalization class is close to what Boyd Davis [8] calls “context-sensitive cinematography” which, he argues, is one of the particularly interesting areas of the future of interactive media.

## 2.2. Classification using usage classes

All the scripts submitted to the screenwriting contest were quite unique. Out of the 110 submitted scripts, 62 could be classified mainly as messages and 9 as applications; 37 were based on the situation they are meant to be watched in, and 2 could be considered mainly services (see Figure 1). These main classes were derived by iteratively refining the classes derived from the scripts. The classes were not completely mutually exclusive. This is shown in Figure 1 as the overlapping areas.

We have further refined the main classes into subclasses and sub-subclasses. However, a comprehensive subcategorization would need a larger number of script samples. The subcategorization must therefore be viewed as merely trendsetting, giving, however, a good understanding of the types of subcategories that each class can have.

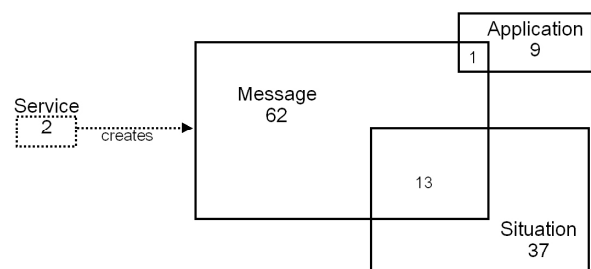


Figure 1. Usage classes of mobile micromovies

Service category contains applications that create micromovies in a remote server from data submitted by the user of a mobile terminal. There were two submissions in the research material that clearly were services. However, we do not consider Service to be a micromovie class. Instead, it can be interpreted as a meta class; the micromovies that a service creates can be classified as *Message*, *Application*, or *Situation*.

### Application Class

For the application class of micromovies, the reason for viewing the movie is to use the application. Application subclasses that were identified from the

scripts are *Agent, Clock, Invitation, Karaoke, Panorama, Poll, Profiler, Quiz, and Screensaver*.

Many Application micromovies require more personalization than is possible in traditional media. An Agent is an application program that has extensive access to cellular phone features and applications. It can communicate with other mobile devices in order to exchange information and perform tasks. A Clock displays time. An Invitation application uses user information to create an invitation message for the viewer. Karaoke micromovies are used for singing karaoke. A Panorama is similar to pre-cinema panorama: user input is required to look at a specific direction or details in the panorama. A Poll asks the viewer's opinion on some subject and displays the percentage of the answers after that. A Profiler uses the information stored in the calendar and records of recent activity to create a micromovie. A Quiz is a game that asks questions about some subject. A Screensaver displays - typically loops - a micromovie if the keyboard of the phone is locked.

#### **Message Class**

A micromovie message is a direct successor of short text messages (SMS), picture messages and multimedia messages (MMS). The user sends a micromovie message if the abstract concept she wants to convey is better expressed by a micromovie than by any other message she could create in the available time. The micromovie does not necessarily have to be an exact presentation of the sender's feelings or ideas. Like with ready-made picture messages, there is only a limited selection of titles available. Still, a professionally prepared micromovie can be a better way of getting the message delivered than a badly prepared, self-created video message.

Messages are usually disposable; old jokes do not make you laugh. A message might become a symbol of something that only the sender and the receiver know, and because of this mutual association the message can develop an important semantic meaning. The actual message may be context-dependent and evolve from disposable to reusable. The subclasses (and sub-subclasses in parentheses) identified for Message class are *Amusement (Fun\_Story, Joke), Aphorism, Apocalyptic, Document (Area\_Guide, Informational), Emotion (Angst, Criticism, Depression, Exploitation, Freedom, Happiness, Hate, Loneliness, Love, Violence), Fable, Fiction, Flashback, Invitation, Mystery, Mythology, Poem, Recipe, Synopsis, and Turnie*.

In our classification most of the scripts (62) fell in the Message class. The most common subclass was Amusement. Amusement was divided into funny stories (Message:Amusement:Fun\_Story) and clear

jokes (Message:Amusement:Joke). In the Joke sub-subclass the joke was the only message in the micromovie. The popularity of the corresponding email attachment class in the Internet indicates a bright future for this micromovie subclass. The second most common class was Aphorism. The micromovies in this class usually contained a small story that justified the aphorism given at the end of the micromovie. The Apocalyptic message naturally ended in the destruction of the world. Document messages include some kind of information that the sender wants the receiver to possess. A typical example might be instructions on how to find directions in a strange city (*Area\_Guide*) or a micromovie about the dangers of illegal drugs (*Informational*).

The Emotion subclass, including the sub-subclasses describing the different emotions, included 14 scripts. These micromovies help people who have difficulties in expressing their feelings to express them casually. The Angst subclass included a script about fear. The Criticism class included messages that criticize some values the receiver might appreciate. The Love sub-subclass alone had 5 scripts, which is not a surprise; people in love are happy to send each other "digital kisses". The other sub-subclasses of emotion contain scripts expressing respective feelings. The Fable subclass contains animal stories, and the Fiction subclass a fictional story that seemed to have a pointless plot. The Flashback subclass contained micromovies about the past, ending in a return to current time. The Mystery subclass included mysteries; Mythology included stories based on mythology. The Poem subclass included poems put in micromovie format, and the Recipe subclass included recipes that help in cookery. The Synopsis subclass presents longer movies in shortened micromovie form. The name for the Turnie subclass comes from turning the phone. This subclass included scripts that exploit turning or moving the terminal according to the instructions to see the micromovie properly. Turnie requires a portable display device to work, therefore this subclass is unique to the mobile environment.

#### **Situation Class**

The reason for using the Situation-class micromovies is that the sender wants to find a message associated with her current situation or context. For example, if someone is late for work, a friend might send her a message about waking up that belongs to the Situation:Home:Morning class. People planning to spend a Friday night in a restaurant might want to send each other micromovies from the category Situation: Drinking. The identified subclasses of the Situation-class micromovies are: *Dentist, Dressing-up, Drinking, Home (Children, Morning), Illness, Mobile\_Phone*

*(Imitation, Promotion), Nature, Party, Public\_Transport, Smoking, Sport, Studying, and Traffic.*

The scripts in the Situation class are distributed much more evenly than in the Message class. The Dentist subclass described horrifying dentist experiences for someone going to see the dentist. The Dressing-up subclass includes micromovies about clothing. The Drinking subclass had micromovies about using alcohol. The Home subclass contained micromovies situated in the home and includes sub-subclasses about children and morning. The Illness subclass could include "Get well soon!" micromovies.

The Mobile\_Phone subclass contained micromovies about the terminals that display them. All users of mobile phones are in a situation to which this topic applies. The Imitation sub-subclass included micromovies that tried to imitate the functions of the mobile phone. Promotion contained micromovies that told stories about cellular phones as lifesavers.

The Nature subclass contained micromovies that were situated in nature. Micromovies from the Party subclass were related to parties and celebrations. Public\_Transport included micromovies that happened in or dealt with public transportation. A lot of people use public transportation every day. Therefore, stories of events in buses or subways could be of special interest to them. The Smoking, Sport, Studying and Traffic subclasses included stories taking place in the respective situations.

### 3. Discussion and conclusions

A micromovie that relies heavily on the properties of a given mobile terminal might only work properly on that particular terminal type. A micromovie that has a high level of personalization may rely on personalization features that are not available in every mobile terminal. In some cases that were studied a micromovie script demanded some passive information from the user, like access to the user's calendar as opposed to active information that can be asked from the user. In reality, a micromovie cannot have full control over a cellular phone, or access the user's personal records without authorization. This suggests that there is a need for standardization of a common micromovie interface to make it possible to implement micromovies of a higher level of personalization. It would then be possible to leave the content adaptation to the network. Currently, when creating a micromovie the author of a mobile micromovie should, at the very least, consider how the movie appears on the great variety of mobile devices' displays.

Our usage-class-based classification well reflects the characteristics of mobile devices. Unlike traditional

media, such as TV or cinema, micromovies are available anytime and anyplace through a mobile terminal. The mobile phone is primarily a communication device and in this context the Message class seems very natural. The Application and Situation classes include micromovies that can naturally be used for providing entertainment in dull situations, such as in a bus or a shopping line. User experiences reported by Repo et al. [9] indicate that there is a need for these classes of micromovies and that video-enabled cellular phones are a natural vehicle with which to deliver them to the user.

For an extensive analysis of the subclassification, a bigger sample of scripts is needed. But even now the subclassification does reveal several subcategories that are potential hits. These categories include obvious ones, such as Love and Joke, and some not so obvious, such as Turnie and Public\_Transport.

Micromovies are not just short films viewed on a small display. They have features that differentiate them from other film formats so that they can be called an art form of their own. Micromovies gain expressive power, as well as limitations, from the special characteristics of mobile terminals. Thus micromovies are not a competitor to movies offered in set-top boxes or pay-TV. Likely uses for micromovies are to use them as an extension of MMS and entertainment to lighten the dull moments of everyday life.

### 4. References

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