Patterns in Cross-Media Interaction Design: It’s much more than a URL... (Part 1)

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Abstract
Content can be repurposed, adapted and stretched across platforms. A story can start in one medium and finish in another. How are audiences moved between platforms, and how can one make this traversal a part of the entertainment experience itself? This paper provides an introduction to multi-platform and multi-format entertainment and then outlines the factors that influence cross-media interaction design. What is to be considered when designing for movement between platforms? How are audiences moved between platforms? What influences the choice of traversal? Critical factors will be listed, as a first step towards developing patterns in cross-media interaction design. This first step is a primer for part two, which will be delivered at a conference.

Keywords
Cross-media, transmedia, multi-platform, audience studies, interaction design, rhetoric, media studies, narratology, ludology...
Entertainment in the Age of Cross-Media Production

Over the past few years, trans/cross/multi-platform/media storytelling/entertainment has emerged in mainstream and independent contexts alike. Artists, gamers, film, TV, radio and portable device producers, print writers and scholars have all been exploring the potential of content that is repurposed (similitude) and continues across mediums, providing unique content in each one (difference). Like all so-called ‘new’ occurrences, these forms have a long history. Indeed, they date back to the use of stories, dance, song and paintings in oral storytelling cultures. The age of cross-media production emerged with force, however, with digital technology and the Net. With digital technology came the ability to move and remediate content with ease. Alongside this occurrence is the increasing range of devices of all sizes and uses to house and transmit this content.

The complexity of this explosion of remediation and platforms and the binding role of the Net facilitated industrial, cognitive and creative responses that I describe as ‘mono-polymorphism’ [1]. There is, for instance, the desire to create a single file type that can be used on many platforms: the so-called COPA/E model of ‘create once, publish or play every/anywhere’. Another is the drive to have a single platform that can do all, what is commonly referred to as ‘convergent’ technologies. The third in this list of examples is the primary concern of my research, work and this talk: how the abstract boundaries of a story or game are altered for multiple platforms. A single story or game (EventRealm), for instance, can be stretched to encompass many platforms [2]. Also, there can be many EventRealms expressed in a variety of platforms, contributing to one fictional World.

Such transmedia forms emerged when the awareness and penetration of a large range of technologies and artforms reached a pivotal point. That moment was, quite poetically, the penultimate year of the 20th century: 1999. The following are stand-out examples of transmedia forms from a range of producers in 1999. They are outlined here to illustrate the different approaches to the form and to provide insight into the object of concern here.

In 1999, telematic artists Paul Serman and Andrea Zapp collaborated to create their installation: A Body of Water. The work was situated at two locations: Wilhelm Lehmbruck Museum in Duisburg and a disused colliery at Herten. People at Duisburg pretended to shower with people at Herten. They saw the combined images of each other on televisions, and their joint performance was also projected onto a wall of water at Herten, where documentary footage of miners showering was also played.

In the same year, a young (fictional) snowboarder named Sisu was injured. This character sparked players in the Netherlands to traverse mobile phones, magazines and television advertisements to find out what happened to Sisu in the first Nokia Game.

Also in 1999 but in the US, viewers of the NBC television show Homicide: Life on the Street, were treated to a special “crossover episode”. It was not a crossover of worlds or brands, instead, it was an intraworld, cross-platform traversal. On the 3rd and 4th of February, detectives started investigating a webcast killing. These detectives were not those seen on air though, they were the second shift detectives who existed only on the Net. The Second Shift

[1] Media theorist Henry Jenkins (2006) theories of ‘convergence’ is akin to ‘mono-polymorphism’, the difference being a framing one. Mono-polymorphism is intended as method for understanding. The method is applied beyond the description of changes to the categorization and design of these works.

[2] A single story or game stretched across platforms can encompass both narrative and ludic elements, indeed, it can transform half-way. It is not sufficient, therefore, to call the abstract boundary a story or game. In the interest of developing a vocabulary for transmodal research, I propose the mode-agnostic term of ‘EventRealm’.
detectives deemed the case closed, but then the detectives on the television show reopened the case in their television episode called *Homicide.com*, which was broadcast on Feb 5th. The Net detectives then concluded the case the following week on the 12th and 19th online.

In the same year there was another website that would drive audiences to another medium: the cinema. *The Blair Witch Project* instory website chronicles the story of three film students who have gone missing after trudging through a forest investigating stories of a witch. To further solidify the fiction in reality, a mockumentary, *Curse of the Blair Witch*, was aired on the Sci-Fi Channel just before the release of the film *The Blair Witch Project*: a horror film produced by Haxan Films, also delivered as a documentary.

Cinema audiences in 1999 witnessed too, the release of the Wachowski Brothers’ feature film *The Matrix*. It is regarded as the first major implementation of the transmedia approach because the narrative will continue across feature films, anime, comics, the Net, a video game and online world over the next few years.

Since this pivotal year, transmedia forms have flourished. We’ve seen enhanced television, locative arts, pervasive gaming, alternate reality games, interactive dramas and more being produced by corporations and individuals, experienced in small local groups and by millions internationally. As I mentioned earlier, the Net was a strong facilitating force in this emergence. Indeed, irrespective of the platform, audiences are often referred to the Net with a URL in the credits of a film or show, SMS or on a cereal box. Sometimes a URL is enough to motivate a cross-platform traversal and sometimes not; and of course not all referrals are directed towards the Net.

Given the increase of unique content on different platforms it has become more important to ensure audiences and players traverse them. For, without a multi-platform traversal the total EventRealm is not experienced and the greater regions of a World are left uninhabited [3]. What is needed, therefore, is cross-media interaction design (CMID).

**Cross-Media Interaction Design**

Due to the contemporary nature of the field, Interaction Design has different meanings to different people. The approach adopted/proposed here for CMID is concerned with designing for movement across modes. I employ the ambiguous terms cross-media and modes intentionally: because traversals within a multi-platform work vary. A movement is successful, however, if a) it happens and b) it contributes positively to the experience of the work. Interaction design is also usually associated with designing for interaction between people. If we are to consider the other side of the interaction in the CMID context, beyond the technology, it is interaction with a World.

Although there has been much research into interaction design there is little that addresses CMID specifically. Dan Saffer briefly mentions ‘transmedia interactions’ in the chapter on the future in his book *Designing for Interaction*, (Saffer, 2007). Of the scholars who interrogate the cross/transmedia format specifically there are only a handful who address CMID. Of note is Marc Ruppel who in his 2005 paper describes what he calls ‘migratory cues’:

‘a signal towards another medium—the means through which various narrative paths are marked by an author and located by a user through activation patterns’ (Ruppel, 2005)

[3] By world I mean the sum of all texts that make up a fictional or real domain. It is equivalent to some associations with storyworld, gameworld and brand.
The signal towards another medium is not, of course, the only phase of an interaction; and due to the inchoate nature of the form, a traversal to another media platform often needs to be signaled to the audience with some persuasion and guidance. Based on these needs, and my analysis of extant mono- and multi-platform traversals, I propose a three phase process of a ‘Call to Action’ (CTA) [4]:

1) **Primer**: prepare and motivate the audience to act;
2) **Referral**: provide the means and instructions on how and when to act;
3) **Reward**: acknowledge and reward action. (Dena cited in Giovagnoli, 2005)

The implementation, intensity, order, delineation between and employment of any of these phases is informed by a variety of factors.

**Factors in Cross-Media Interaction Design**

In 1977 architect Christopher Alexander a book called *Patterns of Language*. In this book Alexander provided a list of core rules with which to design a town or buildings by. The rules provided a solid framework with which individuals could employ to almost guarantee a positive result, whilst also allowing for unique expression. The CTA phases are offered here as a framework with which to build a transmedia network. But as I stated earlier, a successful CMID is evidenced in two indicators: when the person moves between platforms and when the movement impacts positively on the experience. The CTA phases are designed to attend to both of these. The following is an initial list of factors that influence the implementation of the CTA phases, but also the experience of the traversee. It is one thing to get a person to move between platforms, and another for the journey to impact the person as much as the content they engage with. A transmedia experience is very different to mono-medium ones (the traditional and dominant mode) because a person has to sometimes physically move to another location, switch on or sign in, move from click to flick, watch to wrestle, and all of these require an effort that has traditionally not been demanded of audiences before.

**Medial**

The first set of factors to consider is that of the media involved. Is the person moving between units within the same mode and platform or to a different one? If to a different one then what are the shifting between:

a) networked and non-networked media;
b) static and mutable platforms;
c) fixed and portable platforms;
d) public and private platforms;
e) multi-modal and mono-mode;
f) visual and text-based?

**Accessibility values**

Accessibility issues influence the choice of platform, type of CTA and the experience, for example:

a) *Availability* of platforms in a particular context (for example, if the player is on the street).
b) *Conditional use* for instance age, subscription, cost and geographic restrictions. Of the latter, a person may be restricted from accessing certain content on the web due to geo-locks, or from getting to a location that is in another town, state or country.
c) *Skills/knowledge*: the knowledge and skills needed to enter and use a platform (eg: moving from a book to a virtual world). This influences the type of CTA in that the
producer needs to decide whether they will provide more motivation to act and information about how to act, or whether they will just target a specific audience segment that already knows by employing a CTA that will appeal only to them.

**Artforms**
Within a platform and between platforms, a person will most likely be moving between artforms. Some questions to consider, but not all, are, is the person moving between:

- a) Representative arts and simulations;
- b) Narrative and non-narrative;
- c) Static, interactive, generated or emergent;
- c) long-form, short or micro content?

**World Relation**
The World Relation asks you consider where the person is moving in relation to the property created, other properties and non-entertainment forms. These relations are expressed according to the following movement:

- a) **Meta-World to World**: Moving to or from a non-entertainment property (for instance commentary about the work) to or from the World;
- b) **Extra-World to World**: Moving to or from a non-entertainment property which has been appropriated by the World, to or from the World (eg: fictional websites that link to real life websites);
- c) **Inter-World**: move between properties (eg: *Batman* and *The Matrix*);
- d) **Intra-World**: move between EventRealms within a property;
- e) **Intra-EventRealm**: move within the EventRealm, which can be between units or platforms.

These relations influence how much control one has over the CTA (for instance, providing a CTA from a media interview). The level of detail, warnings or legal implications when moving a person to an ExtraWorld item or another property. Of the latter, there is also the aesthetic implications: how is a referral to a non-related World that is owned by the producer impact the experience?

**Dependency**
Is it essential that the unit is experienced by the person or not? Is it, for instance, content that contributes to the World but is not needed for coherence? Is that movement needed in order to unlock or free up other movement?

**Time**
Items to consider in relation to time:

1) **Pacing**: time between CTAs (and therefore possible movement).
2) **Urgency**: a) immediate movement: is action required instantly?; b) scheduled movement: does the action need to take place at a forthcoming specified time?; c) free movement: can the person act at anytime?
3) **Duration**: time it takes to traverse platforms (eg: difference between turning on a television and going to the cinema).

These values relate to the traversal types, for instance, the use of two platforms concurrently requires an immediate movement CTA.

**Traversal Types**
Traversal refers to the direction and timing of movement between units in platforms. These are categorized as follows:

1) **Sequential**: finish one unit and then move to another
(can be (a) single session or (b) multi-session);  
2) Simultaneous: usage of more than one platform at the same time (e.g. listening to music whilst reading). Content that fits into this category is designed to be complimentary.  
3) Concurrent: usage of more than one platform at the same time, but shifting focus between them. Content that fits into this category has units that compete for attention rather than compliment each other. [5]  
3) Cycle is to move back and forth between units in different platforms, re-entering the same content (that is, a re-reading). Can be (a) single session or (b) multi-session.  
4) Spiral is to move between units in different platforms, re-entering a ‘site’ but engaging in new content on each return. Can be (a) single session or (b) multi-session.

The choice of traversal, repetition, combination and order will greatly the influence the choice of CTA and affect the overall experience.

Producer
The various producers of a work can include: Original, Commissioned, Licensed, Sanctioned, Unsanctioned and non-human (a computer program for instance). These types of producers do not indicate a hierarchy however. Instead, I distinguish between producers that are given (by audiences) primary status as defining the World and those that contribute to the World. The former has a higher status because they have authority to create and continue characters, settings and situations etc. They can be a combination of producers: original, commissioned and licensed. The latter, contributors, can add to the fictional world (such as some fan fiction) but are not given authority in defining it. How does the movement into and away from certain producers change the CTA and the experience?

Audience Address
A CTA can vary in who and how it addresses people:  
1) Many-through-One: addressing as many people as possible with a single call-to-action;  
2) Many-through-Many: addressing many people through many targeted calls-to-action;  
3) Some-through-Some: addressing some people at the exclusion of others through targeted calls-to-action;  
4) Some-through-None: addressing some people with no calls-to-action. This apparent oddity is in fact a trait of ‘alternate reality games’. In ARGs, the mere presence of a text and lack of meta-textual or gameplay commands is a trigger to motivate a player to act in a manner already established by the genre. It is the lack of a CTA that identifies the text as being within a genre, and so triggers a traditional action that has a predefined activity but no defined target or outcome.

CTA-specific Variables
Other issues to consider in relation to the CTA specifically are whether it is a:  
 a) First, Repeated or Last CTA;  
b) Fixed or mutable (changeable) CTA;  
c) CTA with a general or personalized address to the audience;  
d) instory or meta CTA? An instory or ingame CTA is one where the call is presented within the discourse of the fiction. It is a CTA that exists within the setting of the world. A so-called ‘out-of-game’ or OOG is meta-textual. For instance, a call to sign up to play a game is different to a call from a character to save them. Some producers employ the instory CTA not just because it is a trope of a particular immersive genre, but because it has a greater illocutionary force for particular audiences. [6].

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[5] Two key studies in the area have identified ‘simultaneous media usage’ or SIMM (Pilotta, Schultz et al., 2004) and ‘concurrent media exposure’ by Middletown Media Studies 2 (MMS2) (Center for Media Design, 2005). The categories and content descriptions provided here are not those of the studies.

[6] Illocutionary force is a term from speech act theory which, fundamentally, denotes the persuasive power behind a statement.
Conclusion of Document/CTA to Talk/Epilogue of Talk

The factors offered here are first steps, a listing of ingredients that need to now be combined for effect. To establish patterns – guidelines for CMID – I have analyzed extant models in television programming, creative projects and advertising, insights from hypertext and gameplay rhetoric, interaction design, experience design, speech act theory and other disciplines. The patterns will be discussed and illustrated in Part 2 of this paper through the address I’m giving at the First International Cross-Media Interaction Design Conference in Sweden on Thursday 22nd March, 2007. This document is intended as a primer for that talk. If you’re reading this after the talk or instead of it, I hope this document served its other purpose: to provide a record of some of the key issues I discussed, and to be a catalyst for further investigation.

References


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