Chapter 4.8
Semantic Web for Media Convergence:
A Newspaper Case

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ABSTRACT

Newspapers in the digitalisation and Internet era are evolving from mono-channel and static communication mediums to highly dynamic and multi-channel ones, where the different channels converge into a unified news editorial office. Advanced computerised support is needed in order to cope with the requirements arising from convergent multimedia news management, production and delivery. Such advanced services require machines to be aware of a greater part of the underlying semantics. Ontologies are a clear candidate to put this semantics into play, and Semantic Web technologies the best choice for Web-wide information integration. However, newspapers have made great investments in their current news management systems so a smooth transition is required in order to reduce implementation costs. Our proposal is to build an ontological framework based on existing journalism and multimedia standards and to translate existing metadata to the Semantic Web. Once in a semantic space, data integration and news management and retrieval are facilitated enormously. For instance, Semantic Web tools are being developed in the context of a media house that are capable of dealing with the different kinds of media managed in the media house in an integrated and transparent way.

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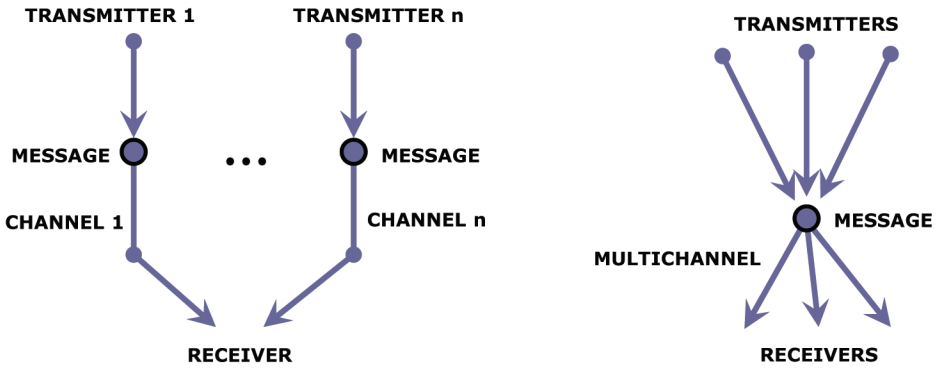
Figure 1. Traditional news information flux (left) and the new trend of convergent news flux (right)



CURRENT SITUATION

Web news publishing is evolving fast, as the majority of Internet services, and nowadays this service is trying to adapt information to a way that best fits users' interests in order to increase its use. With that, newspapers are expecting to profit more from their news sites. In parallel, many of the newspaper companies are changing into news media houses. They own radio stations and video production companies that produce content unsupported by traditional newspapers, but that is delivered by Web newspapers or new mobile services. Initially, Web news was a mere reproduction of those in the printed edition. Nowadays, they are constantly updated and provide new services for those users interested on reaching this information as soon as possible and enjoying new ways of interaction with them (Eriksen & Ihlström, 2000; Lundberg, 2002; Ihlström, Lundberg, & Perdrix, 2003).

Consequently, news industry communication model is changing from the traditional one shown on the left of Figure 1 to the one shown in the right. In the former, each channel is considered separately (press, TV, radio, Internet, mobile phones…) and implies his way creating his own message, transmitting over this channel and using his own interface in order to show the message to the receivers. On the other hand, the latter is based on an information convergence flux. In this model, transmitters make information in collaboration with other transmitters and produce messages that include as media as it is necessary (video, text, audio, images…). Finally, receivers choose the channel that best fits their needs in order to get access to messages.

The previous situation is the one faced in the context of the Diari Segre Media Group[1], which is a journalism holding that in the last years has been facing this convergence trend. This holding started 25 years ago with a newspaper edition. Today produces three press editions in two languages, three radio stations, six television regional channels and several Internet Websites. Nowadays, all the editorial staff is applying the convergence of information flux approach during news generation and management. Therefore, they are required to be versatile journalists because they cannot be specialized in any concrete media. They must deal with video, image and text edition. Moreover, they must write in different ways, for instance for press news or for radio or TV voiceover.

On the other hand, the Diari Segre archive system is changing to a new repository build from the combination of text, images, video and audio files. In this sense, archive management is becoming a big issue and it requires deep improvements in terms of content search, relations among news (e.g. historical relations among news items) or information retrieval interfaces. The