1 Requirements Model of the e-News System

The e-News system (Fig. 1) allows the User to read specific news which can be searched by providing a keyword or read news provided by the newspaper. Thus, the User depends on e-News System to read news while the e-News System depends on User get a keyword in order to enable the search of the specific requested news.

Fig. 1. Strategic Dependency Model for the e-News System

Both the User and Editor in Chief expects that e-News system maintain newspaper updated and available on website. The Editor in Chief depends on e-News system for editing and publishing newspaper according to guideline and also expects that e-News
system be adaptable, interoperable, maintain published information secure and publish original news. The newspaper editing and publishing must be according to a guideline, which is produced by a meeting among the Editors and the Editor in Chief. Since Editor in Chief is a special kind of Editor, it can also suggest news to be included in the guideline. The Editor in Chief is the coordinator of the guideline meeting and therefore, the e-News System depends on him to get the newspaper guideline. To compose the newspaper it is necessary for the e-News System to interact with different and distributed news’ agencies on the Internet, in order to get news according to the guideline. Thus, the e-News System depends on News Agency to get news and photos which have their data integrity guaranteed. After newspaper edition is concluded, the e-News system depends on Editor in Chief to have the newspaper publishing authorized.

2 Communication Agent Pattern Specification

A Communication Agent Pattern Specification (CAPS) describes a pattern of communications and is defined in terms of model roles in an SAPS. Formally, a CAPS defines a part of the pattern metamodel that specifies conforming communication diagrams (Fig. 2).

Fig. 2. Matchmaker Communication Agent Pattern

3 The Partial JADE Code for the e-News System

In this section we show how the agents involved in the Matchmaker pattern can be codified using and integration of AspectJ and JADE environments. According to the proposed guidelines, the agentRoles Photographer-Reporter and Editor become agents, the macroPlans become behaviors and the complexAction become methods.
public class **Photographer-Reporter** extends Agent {
    protected void setup() { …
    public void linkToNewsAgencies () { …
    public void produceNewsArticle () { …
    private class **ContactNewsAgencies** extends Behaviour {
        public void action() { …
    }

}

Fig. 3. JADE Code for Photographer-Reporter Agent

public class **Editor** extends Agent {
    protected void setup() { …
    private class **EditNewsSpecificCategory** extends Behaviour {
    public void action() { …
    }
}

Fig. 4. JADE Code for Editor Agent