Social Media Economy and its effect on Egyptian Media Institutions:  
The Case of Al Ahram  
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Introduction

News has always been influenced by the utilization of technological innovations in the workplace. In Egypt, during the past 20 years, several news organizations began to diffuse ICTs resources in the news making processes. Soon, the utilization of new technologies has altered the traditional newsgathering and production formats changing the nature of journalism practices and routines (El Gody, 2013; McNair, 2008). The success of newsrooms, especially in post Egypt revolution era is measured in their ability to adopt, integrate, and utilize ICTs and journalism in all processes of production to satisfy their readers (El Gody, 2013; Garrison, 2001).

Information Communication Technologies is an overarching term covering all technical means for processing and communicating information. This term has gained popularity due to the convergence of information and telecommunication technologies in journalism production. ICTs in newsrooms, hence, defines a broad range of integration and utilization of such technologies as computer hardware and software, the Internet and netCTs, networks, databases, multimedia, and fixed and mobile telephones in daily journalism routine (Grossman and Helpman, 2005; Singer, 2006).

Newsroom convergence, hence, is the blending of ICTs in news creation and production process (Quandt and Singer, 2009). In the field of journalism studies, convergence is seen as a concept to document the development of newsrooms in terms of changes in work routines and organization structure connected to these new production arrangements, the (re)development of news format as a result of introducing new media technologies (cf. Deuze, 2003; Singer, 2004; Quinn, 2005; Alves and Carvajl, 2008; Vobic, 2009).

This study sees convergence in relation to changes in work routines, focusing on the utilization of technological aspect in connection to the production of news content. The fusion of ICTs convergence should not be seen as a result of simple technological determinism, but because of the institution, newsroom and staff decision to develop the workplace (Cottle, 1999; Deuze, 2009). Technological convergence hence is seen as the basic interlinking of computing and other Information Technologies, content development, changing staff to multimedia reporters, and communication networks that has arisen as the result of the evolution and popularization of the ICTs that have emerged in the digital media space; an open process that challenges traditional aspect of journalism work in order to increase productivity, alternativeness, efficiency, and interactivity (Singer, 2006; Quandt and Singer, 2009).

The Egyptian print media ecology for the past 60 years has been shaped by loyalty to the political
regime. The government through direct ownership and strict laws and regulations controls Egyptian media system. The purpose of newspapers is to steer the main political, social, and economic programs of the government. The government steers the media agenda and direction of news to filter what receivers hear and see. Egyptian journalists did not explore beyond the limits of a traditional system of a relationship between the political class and the rest of the population (Rugh, 2004; El Gody, 2013).

Internet technology was introduced in Egyptian newsrooms in 1996 as a government aid to media organizations to develop their telephony infrastructure. Dar Al Tahrir publication *Al Gomhuria* was the first among Egyptian print newspaper to go online. In five years all major news organizations joined the cyber world. Currently –till February 2015– 69 publications, representing 40.4 percent of Egyptian print media industry have their own websites (Information and Decision Support Center, 2010; Egyptian Supreme Press Council, 2015). Although, superficially, this trend implies development, the question, however, of whether ICTs have been realized and used in the daily routine of Egyptian newsrooms needs further examination.

In transitional societies – moving towards democracy like Egypt - political development is a central topic which journalists ‘mediate with their audience.’ Indeed journalists inform the citizenry, and facilitate informed choice as ‘gate-watchers’ not as watchdog ‘gatekeepers’ in the power struggle between audience, media and politics. Egyptian journalists have been criticized for not being ‘connected’ with their local audiences, for losing their ability to help citizens connect their everyday life with politics, as well as for failing in their capacity to encourage local people to participate in political debates, or even to provide them with the skills needed for this participation (El Gody, 2009; Eliasoph, 1998, p. 210).

Egyptian online discussions were at a high, especially after January 2013 revolution, as citizens cluster into groups, each with its own agenda, and to foster several scenarios for the democratization process (El Gody, 2013). News websites became the playground for political parties, activists, and groups from various ideologies creating ‘online spaces of flows’ to cater for the emerging needs of the readers. Political actors started to invest in creating news portals to attract communities within the community and to enable these communities to interact with the ideas of each other on the one hand and with the ideas of the news portals on the other hand (El Gody, 2013; Hofheinz, 2005; Livingstone and Bober, 2005).

This study focuses on the diffusion and implementation of ICTs in Egyptian newsrooms. Further, the study examines if/and to what extent and in what ways did Egyptian newsrooms incorporate ICTs in their daily routine. Other questions are as follows:

1. What are the ICTs components that are diffused and adopted in the Egyptian print media?
2. What are the form(s) of networking among journalists and their networking strategy –if any– with their sources, editors and audience?
3. Is there a convergence strategy or strategies within the Egyptian newsrooms? And if so, what is it/are they?
Methodology and Study Sample

Studying Egyptian newsrooms mixes qualitative ethnographic participant observation and structured semi-structured interviews. Integrating ethnographic participant observation and interviews are conventional methods while conducting newsroom studies, especially dealing with the integration of new media in news routines (cf. Tuchman, 1991; Gans, 1991; Jankowski and Jensen, 1998; Bryman, 2004; Domingo, 2006). This method aims at providing pragmatic advantages when exploring complex research questions which are true for this study. This study sees news as a product of interaction between journalists themselves, with their sources (on and off line), their management, utilization of technologies, as well as with their audience.

Qualitative ethnographic research aims at providing a description of journalists’ uses, understanding and attitude towards the use of ICTs inside newsrooms. Participant observation allows to directly observing the productive process and the attitudes of journalists towards ICTs in their context. According to Traquina (2003), ethnography makes it possible to see “the trans-organizational dimension in the news production process” and “the informal networking amongst the journalists” (Traquina reported in Palacios and Noci, 2003, p.107) which is one of the primary goals of this study. By conducting semi-structured interviews the researcher is able to describe how management teams (both from print and online) viewed the online transition process and how it affects the structure and workflow in the organizations. Interviews allow the discovery of the most important factors in the transition as well as how the business model are reshaped and defined.

The study will focus on Al Ahram newspaper as a case under study. Al Ahram newspaper has been and still is the official mouthpiece of the government and atypical model for government-controlled newspaper. With over 135 years of news history and over 200,000 copies per day, Al Ahram boasts as one of the top of newspaper circulation in Egypt and the Arab world. Till mid eighties Al Ahram was considered one of top 10 most influential news organizations worldwide and one of the most successful news business models worldwide. Today, Al Ahram organization has 16 publications and employ over 15,000 among which the top of Egyptian newsmen and women, Egyptian and Arab opinion leaders, philosophers and thinkers. Al Ahram portal www.ahram.org.eg is one of the early news organizations that went online, and its model was mimicked by other news organizations which followed.

Study Design

My working definition of the observation is adopted from Becker and Geer (1957), and was previously used by Jankowski and Wester (1993), who consider observation to be a technique by
which the observer participates, for a limited period of time – Three waves of observation were conducted in August 2010, September 2012 and August 2013. Each cycle of observation was for two weeks. In the everyday life of the people who are the object of study, observing the things that happen, listening to what is said and asking questions. With observation of Al Ahram journalists in their daily work, I intended to describe the effect of introducing ICTs on the routines, work division and roles, decision-making process, and responsibilities of journalists. I also sought to describe journalists’ use of information technologies tools in networking inside and outside the news organization and their definitions of their job and their products. The data obtained through observations helped to detect similarities and differences among newsrooms and suggest possible reasons to explain this diversity.

To get access to the selected news organizations, I established direct contact with the editor in chief of each organization in order to specify the research interest, intention and needs. The researcher simplified his research goals to the description of the routines of using ICTs inside newsrooms. I also justified his methodological design and explained the needs in terms of access and interaction with the journalists. After convincing the management, there was commitment in helping me in conducting the study.

Al Ahram management were concerned, though, to get a pre-defined and detailed visit schedule beforehand. I had to –extensively- justify the reasons behind my request to stay inside the newsroom for “so many days”. The only drawback of this access strategy was that my presence in the newsrooms was not negotiated in advance with journalists. Indeed, some journalists felt uncomfortable being watched or under constant observation. Others thought my constant note taking and observation a part of the news organization ‘new routine of monitoring who is working and who is not.’ This created some tensions, however, once I explained the focus and the mission of the study, observation process went on smoothly afterwards.

Twenty-seven interviews, amounting to a total of 31 hours with interview length from 40-75 minutes, were conducted with different levels of employees including members of the top directors (editors in chiefs, managing editors, and managers), middle and lower managers (editors and copy editors) and staff (reporters and web team). Interviews with the top management were designed to get information from the people who have a direct influence on the way the business model and structure of the company is defined, the way the news works, how this technological innovation affected them and how the process was carried out. The middle management staff is the nexus between what the top management decides and how employees apply it and are responsible most of the time responsible for executing the exchange process. The employees such as reporters and web producers were asked about how the change affected their workflow, and to describe the way their newsroom works now. They were asked to give their opinion on how the process took place.

In this study, interviews gave “richness and vividness” to material observations gathered (Gillham, 2000, p.10). In addition, interviews added “depth and breadth” to my understanding of
newsroom operations and journalists/editors perceptions of ICTs. (Gorman, et al., 2005, p.41).

**Measuring Newsroom Convergence**

This study follows the tradition of examining newsroom convergence in relation to changes in work routines, focusing on convergence from the utilization of technological aspect in connection to the production of news. In order to provide a picture of the convergence phenomenon within a newsroom framework to assess the use of ICTs within its work structure, it is necessary to determine where does the newsrooms lie within a technological convergence process (Quinn, 2005). To do so, it is helpful to operationalize Haagerup (2002) and Valjakka (2004) discussions on two stage technological on established scales like Dailey et al (2003) et al convergence continuum. Results from the scale will clarify how far a newsroom is converged at a certain point in time, and help in elucidating information that stipulate if the convergence process will be easy or difficult to complete inside *Al Ahram* newsroom.

Creating a convergence scale for *Al Ahram* newsroom, a 4 stage convergence continuum is established based on Daily et al (2003) continuum and Gordon (2004) forms of technological convergence, to name: tactical/structural, information gathering, co-optation and content sharing, and storytelling convergence.

![Convergence Continuum](image)

First, is tactical/structural convergence where news organizations are implementing or planning to ‘do convergence’ inside newsrooms. This includes newsroom economy (re)structure, installing hardware infrastructure and new equipment, and offering new positions. This stage is also measured through observing journalists and editors using words or other elements that promote the idea of convergence inside the newsroom. For Daily (2003) this part of the continuum is seen as the first step on the way to convergence “promoting the benefits of newsroom convergence … in a way where [journalists] have an idea of what are the benefits of convergence are” (Domingo, 2008). Second, is Information gathering that takes place at the reporting level. Where journalists
recognize multi-skill reporting and the utilization of digital technologies in newsgathering and producing information. Digital technology makes the multi-skilled journalist possible. This type of convergence also recognizes audience as partners in the news making process. Further, convergence is serving the community better and to do better journalism making use of the ICTs sources and use the most suitable media to tell the story (Haagerup, 2002; Valjakka, 2004). Third level is ‘Coopetition and content sharing’ is explored looking at the cooperation between the online and the offline mediums and the relationship/sharing of ideas and information on production (Pryor, 1999; Dailey, 2003). Fourth is at the end of the model is the ‘full convergence’ stage where reporters are witnessed cooperating in gathering and disseminating news (Heifetz, 2005, p.26). Fourth, is Storytelling is the simple format of convergence where individual journalist report a story using multimedia tools. Finally Ownership convergence is defined at the highest level of technological convergence scale where convergence means the ownership of multiple content or distribution channels. Pryor (2006) stated that multiplatform reporting form of convergence is indeed a new form of journalism. For Pryor, websites and other news media forms as emails, newsletters, mobile content, RSS feeds represent a new medium with “a unique identity and logic of immediacy and transparency.” These had some links with traditional media and could draw from them, but convergence also required the ability to produce original content in multimedia forms.

Experiencing the newsroom under study, in terms of observation, interviews, analysing website interactivity, and surveys, one can draw a picture whether Al Ahram is experiencing ‘Easy’ or ‘Difficult’ convergence. By listing self-explanatory items that assist in structuring an answer as to how the convergence process will develop and what the problems might be, this practical method helps to determine how easy or difficult it is to newsrooms to converge. Moreover, it can be used to extend the conclusions drawn from the previously discussed Convergence Continuum.

**ICTs and Newsroom Operations in Al Ahram Newspaper**

Henry Jenkins (2001) defines ICTs convergence diffusion inside media organizations as an “ongoing process” occurring at various intersections between media and technologies, industry, content and audience for producing and distributing news (Jenkins, 2001, p.93; Kolodzy, 2006). Therefore, in order to understand the process of diffusion, one need to look at news organizations attitudes towards adopting new media technologies, how they perceive the function of their online presence, introducing and utilizing technologies inside newsrooms, and the role of audience in this process.

In that sense, newsroom is the assimilation of embedded workplace rules, customs, values, beliefs and effect on the overall work practice. Newsroom culture varies from one organization to another according to several factors including organization leadership, editorial policy, professional values, and ability to utilize technology in workplace (Lewis, 2009). News production has always been influenced by the utilization of technological advancements from typesetting to desktop publishing and from single to multimedia. In a networked society, making journalism lies in the organization ability to change its working space to a news center where journalists, editors and
audience interact to (re)produce news for multi platforms and multi audience (Cottle, 2000; Deuze, 2008).

Information Communication Technologies has brought “major benefits in journalism workplace and unsettling changes in working, tasking and multi tasking practices and routines… one can’t walk into a newsroom and not find some form of new media integrated in news operation.” These changes are challenging the “existing lives of demarcation in journalistic workplace” (McNair, 2008, pp.125-126). Advances in computing technologies combined with the global networking of the Internet, netCTs and social networks have changed the production environment in today’s journalism. The core working routines and practices are changing (Pavlik, 2004; Saltzis and Dickenson, 2006; Garrison and Messner, 2007).

Egyptian news culture has been characterized for the past sixty years to be passive, defensive, and submissive to state pressure and government agenda (Ramaprasad and Hamdy, 2006). Adoption of new ideas and technologies pass through two stages before implementing them in news organizations, discuss the idea/ technology at the –government operated- Supreme Press Council and then test it in –government operated- Al Ahram newspaper editorial body before deciding introducing (or not) the technology to other newspaper organizations (Salama, 2009; Eissa, 2012). Journalists’ function mainly is to maintain the status quo of supporting the political system main policies (Ramaprasad and Hamdy, 2006; El Tantawy, 2000).

Internet Technology was introduced to Al Ahram organization in 1994, as part of developing the telephony and telecommunication infrastructure of the organization. Utilization of the Internet in journalism making was not foreseen as a tool. That is why the technology was approved and implemented in news organizations. With the development of the Internet as a journalism tool, Al Ahram editorial body saw in the new technology a device to enrich its database “to double check information already have” and as “a tool to widen Al Ahram circulation reach” (Abdel Haseeb, 2013). On that premise, Internet technology started to diffuse in Egyptian newsrooms. The implementation of Internet technology in media landscape coped with the widespread use of personal computers in news design and production hence laying the foundation for the introduction of ICTs inside Egyptian newsrooms (El Gody, 2013; El Labban, 2006).

Soon ICTs became the new playground to reach, attract and interact with audience. Media organizations started to explore the uses of the new medium to reach audience. Independent and opposition news organizations started to ‘aggressively’ utilize ICTs in its struggle towards its independence from the ‘twin yokes’ of state and businesses control that are close to the political system (Al Jenaibi, 2008; Pitnak and Fouda, 2009). Similarly, journalists started to use ICTs to develop a better form of journalism that use a more multimedia format, interactivity, hypertextuality, interconnectivity and liquidity of news were introduced to re engage the increasingly distrusting and alienated audience. Government media, on the other hand started to pass beyond the borders of using the ICTs as a publishing tool to alter competition from alternative/ independent media, reclaim dropped circulation and most importantly to cope with
government pressure to regain control over society (Ahmed, 2010; Ibrahim, 2013). News organizations capitalized on ICTs as a tool to “Interact on shared cultural beliefs” Where reality is mutually “produced, maintained and transformed” between journalists and their audiences (El Gody, 2013).

The Setting

To understand the news making process inside news organization, one needs to look outside the newsroom walls towards the entire building, history and heritage as it is reflected in the operationalization of the newsroom.

Al Ahram Foundation is the largest newspaper organization in Egypt and the Middle East. Established in 1876, Al Ahram newspaper is the oldest, largest and most circulated Arabic newspaper in Egypt and the Arab world. Founded by Syrian Tekla brothers who escaped state control in Syria to Egypt, Al Ahram affiliated itself to the government since its establishment. Before the 1952 revolution, Al Ahram was not among the elite of Egyptian newspapers, but managed to survive because of government subsidy. This role continued after the revolution (Dabbous, 1994). Following the nationalization of all publishing houses in 1960, Al Ahram has espoused government views consistently featuring its views and ideas. Its editor at this time, Mohamed Hassanien Heikal, a personal friend and advisor of late President Nasser, reflected the Revolution Command Council agenda to the Egyptians.

To spread Nasser’s idealism of Pan Arabism, the organization hosted the elite of intellectuals and writers from Egypt and the Arab world. Al Ahram grew to be the influential newspaper in the region and one of top 10 news organizations worldwide (Dabbous, 1994). The organization moved from its one floor office in El Borsa Street to a building downtown to be near the cabinet of ministry and the Parliament. Al Ahram architecture was designed by famous Egyptian architect Naoum Chebib who erected the structure in a shape of paper and the internal newsroom, and offices based on the British Times newspaper.

Today, the organization obtains one of the most sophisticated modern twin-building downtown Cairo overlooking the Press Street hosting besides Al Ahram newspaper and its local, regional and International editions, 14 other publications in Arabic, English and French and a number of specialized centres. Besides the downtown building, the organization obtains other news buildings and press offices in all Egyptian governorates. The gross income of Al Ahram in 2014 is 1,400,000,000 Egyptian pounds (186,000,000USD) (Cairo post, 2014). For the past 15 years, the organization has been striving under heavy burden of debt that the government is shouldering through direct subsidies, and government paid advertisement. The government however changed its editorial body three times during the past decade seeking innovative ideas to solve the fiscal deficit.
Al Ahram Newsroom Design

People come and go but Al Ahram remains as the house of excellence in journalism... Keeping the traditions and values of Al Ahram is something we need to maintain

--Morsi Atallah, former editor-in-chief of Al Ahram

Maintaining its ‘legacy’ is the key to understand Al Ahram newsroom operations. The newsroom is located in the fourth floor of the ‘main’ building. The golden days of Al Ahram -the 60’s era- is reflected throughout corridors that lead to the newsroom. Egyptian ‘traditions’ and ‘identity’ are reflected in the Sculptures, portraits, and paintings of famous Egyptian artists. The walls around the newsroom includes pictures of veteran Al Ahram writers, ex editors, copies of defining–post 1952 revolution- headline scoops, former President Mubarak visits, and pictures of world leaders and politicians in their visit to the foundation, making one aware that he is entering an esteemed government facility.

Al Ahram ‘traditionalism’ is reflected in its classic British-style furniture design -being a mimic of the Times of London-. The newsroom walls are woodenly coated and polished, the tables and desks are wide and made of heavy mahogany wood, and the floor is wooden parquet for the editorial section and hard floor for the journalist section of the newsroom. The room spreads on 360 meters square and accommodates the production team of Al Ahram newspaper, Al Ahram weekend edition, and some sections of Al Ahram Al Arabi magazine and the English Al Ahram weekly. The ‘highrarchial’ ‘centralized’ ‘closed’ system of work of Al Ahram newsroom is witnessed in the separation of the room to an editors and journalists section (See figure 2). A line can be drawn between the editors’ wing and the journalists ‘kitchen’.Further the editor in-charge desk overlooks the editors’/production support section and the journalists’ one. For Al Ahram, it is important that the production editors (language, layout, design and pictures) to be “under the eyes of the news editors” as stated by Sameh Abdel Aziz, layout and online editor of Al Ahram newspaper, and later chairman of Board of Al Ahram organization.

The computer browsing computers are next to the editor’s desk ‘to make sure that no foul information are searched using them.’ The foreign desk accommodates the only journalistic team that is within the premise of the editors section mainly because the wire tickers and news agencies computers needed to be under ‘senior’ supervision. That is why the foreign desk journalists’ movements around the desk and internal discussions are held minimal. To make sure foreign news and reports are under continuous supervision, only the wire editor/ senior journalist is allowed to take the ticker sheets from the machine or have the access password to the agencies computer.

The editorial meeting table separates the editor zone and the journalist zone. A member of the copy editors team is always present on the table to supervise and monitor journalists’ work. The table meeting table is where the 2 main meetings take place. The morning meeting starts at 10:30
where editors and journalists discuss the plan of news and stories for the day and upon which assignments take place, and the 15:30 meeting where editors meet to discuss the status of stories accomplished, which stories will run, pages layout and publishing procedure.

The journalist section is also set in a hierarchical form where the ‘major news sections’ are close to the “editor’s arm.” In that sense the presidential affairs, cabinet and parliamentary sections are placed in the first cubicles followed by economy, investigation, culture, specialized, sports and accidents. Further each section is headed either by a junior editor or a senior ‘trusted’ staff journalist who overlooks the work process and paste. Finally journalists from *Al Ahram* Al Arabi and Weekly are seated in the final left cubical.

The newsroom is surrounded with senior and managing editors offices where they ‘can’ monitor journalists work via the open glass windows. *Al Ahram* main library is located next to the newsroom where journalists can search for factual information. Further *Al Ahram* picture/image library and news archive are 50 meters away from the newsroom. The rest of the production (layout and design, language and corrections teams) takes place in the third floor where it is equipped with design Macintosh computers. The rooms are next to the vice editor in chief, editor in chief offices who have the final look on the newspaper pages before going to press.

*Al Ahram* organization follows ‘atypical’ news organization ‘chain-network’ management structure that can be represented with the owner/publisher—the supreme press council—sets the general guidelines and structural agenda of the publication hiring the CEO of *Al Ahram* Foundation as well as the editors of different publications. The advertising, marketing, production, distribution and circulation managers are nominated by the board members.

The internal structure of *Al Ahram* follows a top down model, discussed by Gills (1985), with the editor in chief is on top of the pyramid structure with journalists report their work to the executive editor, who collects journalists work to the page/Department editor. Selection of the stories is then done and decision structure is then moves up the line of management to the editor. Issues of editorial independence is not discussed in *Al Ahram* ‘closed’ newsroom management structure with several layers of executive(s) editors/vice editor(s) in chief/managing editor all are chosen by the editorial board. The editors on the other hands chose the junior editors and first line of supervisory management who cluster journalists into teams that are capable of fulfilling the organizational ‘government’ agenda.

As mentioned earlier, the total number of employees of the organization is 16,200, the editorial/reporter staff of *Al Ahram* newspaper is 480. For the past 20 years, job opportunities inside *Al Ahram* have been kept to minimal. Most journalists appointed are carefully selected by the editor in chief. Employment is based on ‘people of trust’ more than ‘qualified journalists,’ also because of *Al Ahram* financial difficulties. *Al Ahram* rewards the highest salary among Egyptian news organization plus annual bonuses from advertising sales and shares from profit if applicable (Abdel Haseeb, 2010; Eissa, 2012). The management maintains ‘the high salary and bonus policy’ mainly to keep the journalists from working outside the organization also to maintain their loyalty.
towards the management (Abdel Haseeb, 2010).

Figure 2: Al Ahram Newsroom Floor Plan
ICTs Infrastructure in Al Ahram Newsroom

Newsrooms have always been shaped by management/ journalists’ utilization of technology. New communications technology brought major benefits for newsrooms and unnerving changes in work practices and routines. Almost all aspects of newsroom operations -including production, layout, composition, delivery, circulation, and archives- are computerized. The few deadlines a day have been replaced by rolling news. The newsroom computer system has evolved from a simple layout, text typing and wire browsing, to become a multimedia workflow engine that spans well beyond the newsroom floor and production. The potential of computer networking for journalism was increasingly recognized. The digital newsroom is fast becoming the core groupware platform and workflow engine of successful newspaper organizations.

As mentioned earlier, *Al Ahram* was the first news organization to receive Internet connection among Egyptian newspapers in 1994. For *Al Ahram* management, Internet was seen as a tool to help documentation and verification of already known facts and sources. This explains Internet connectivity was limited to the organization’s archive department located next to the editor offices. With the increase of Internet popularity among journalists and their pressure to wire the newsroom, and –most importantly- increase of Internet connectivity in other Egyptian news organizations, *Al Ahram* management allowed Internet connectivity in the 10th floor journalist lounge. Internet was introduced inside the newsroom in 2001, with the change of wire service delivery to a standard online reception. However, *Al Ahram* management allows Internet connection partly inside the newsroom within the editor’s section. Internet connectivity were restricted to 4 PC stations (increased to 5 PC stations in 2013) called the ‘computer section’ in order to make sure that journalists are using the technology within ‘limits of *Al Ahram* policy’ Internet computers in the journalists lounge room is provided through ‘booking sheet’ and is always busy by journalists striving to do their work. Inside the newsroom, access to computer with Internet is for few minutes “just to pull information” (Adel, 2010; Abdel Aziz, 2013).

Theoretically, *Al Ahram* organization is properly wired, however the Internet has not been upgraded since 2005 even though the organization receives Internet service from the government. Internet is allowed in high-managerial and editors offices. Internet and technology services are maintained through *Al Ahram* Management and Computer Center (AMAC). Internet service inside the organization follows some heavy censorship. Social media and ‘un necessary websites’ are banned from access inside the organization. The center performs high form of surveillance on Internet access as well as over the organization email –which provided explanation towards why journalists of *Al Ahram* prefer using commercial emails than the organization one to escape organization pressure and censorship. Wireless Internet access is not permitted inside the organization in order to maintain Internet access order inside the organization (Adel, 2012).

“The Computer system inside the organization needs real upgrade,” explains Sameh Abdel Aziz.
The number of personal computers is not enough. “At least there is one computer for every 15-20 journalist.” Touring the newsroom, the computers inside the newsroom are “old and slow” as described by one journalist. The Computers regularly “down because they are not authentic and way too old and over used.” The management does not invest in purchasing authentic computers or software programs… the money is rather spent on painting the front of the organization and upgrading ‘editors offices’ than technological infrastructure,” as discussed by another journalist. Al Ahram staff members are not encouraged to bring their own laptops, even if they bring it, there is no printing facility for their work and limited Internet cables to share to maintain the bandwidth speed so it does not get overloaded. The layout and design computer is using apple Mac which has ‘-Al Nasher Al Sahafi-’ an Arabic specialized program for publishing.

Al Ahram Management and Computer Center also is responsible for the creation of Al Ahram Intranetwork portal. The portal hosts Al Ahram website portal, various Al Ahram publication websites, email system and database. As mentioned earlier, Al Ahram is the owner of www.ahram.org.eg and its mirrors www.ahram.com and ahram.co.uk -so it does not be mistaken for other newspapers. Within Al Ahram ownership package is Al Ahram email (@ahram.org and @ahram.org.eg). The organization offers email to its management, editorial board, senior writers, and a number of ‘trusted’ journalists. The majority Journalists are not offered organization email address, fearing they use Al Ahram name to do personal reporting for other publications, which provides another explanation why members of Al Ahram newspaper are using commercial emails. The email system is hosted via Al Ahram Intranetwork portal.

Al Ahram maintains a simple database in storing Al Ahram archive (offered since 18 July 1998). Journalists and audience can retrieve past issues by accessing the date; however they cannot search the dataset using keywords. The organization has a ‘form’ of Intranetwork to transfer files from the newsroom to the layout department and to send pictures from the archive the newsroom and to the layout department.

Al Ahram spent LE 12,000,000 (USD 1.1 million) in creating its photo-database. “This is our success story,” stated Mr. Nesseem Adel Vice editor of Al Ahram. The organization obtains one of the most valuable photo-documentation in Egyptian media with over 14 million photos since the early 1900s. To keep this ‘image treasure,’ AMAC launched a project where all pictures were scanned, properly documented and stored in the Archive library. A computerized archive room is then established where pictures from the news agencies are filed into archive system. Access to the photo-database is restricted to few library personnel. Journalists’, who need archived pictures, go to the library and browse the database with the librarian to
choose the picture wanted. The picture is then transferred via the Intranet network to the newsroom, to be observed by the journalist and editor in the ‘archive computer run by another library staff to be approved then sent to the layout. AMAC is working on the programming of ‘an ambitious program’ where Al Ahram documents, past issues can be scanned, text-object recognized is archived.

In a closed centralized newsroom system, and also for budget reasons, Al Ahram does not offer mobiles, laptops or other forms of technologies to its employees. However, through the Egyptian Journalism Syndicate Al Ahram journalists are provided with special offers on laptops and special rates on mobile lines and equipment for to encourage them on using the technology. The journalist union inside Al Ahram are provide such service but on a limited base.

Al Ahram newsroom is equipped with six television sets inside the newsroom next to the editor office. The TV sets are hooked to satellite receivers only. The receivers are programmed to receive ‘approved’ news channels only. The televisions operate when ‘major events take place and need to be seen. The main technology present inside the ‘journalists quarters’ in the newsroom is telephones. Fifty-seven landline telephones were counted inside the journalist section. Accessing internal lines can be done directly, however accessing outside line is done through accessing an external number. Accessing mobile lines needs calling the operator requesting the number and purpose of the call to be inserted in the telephone log book.

Although the number of journalists/editors of Al Ahram formulate almost 40% of registered journalists in the Egyptian press syndicate, yet the newsroom was empty but for a few throughout the production hours (between 9:00-4:30). The maximum number of journalists who were present inside the newsroom was 43 journalists/editors following the story of the burn of the Egyptian parliament on. The average number of journalists averaged 27 throughout the observation tiers. One of the main reasons interviews revealed is that journalists don’t need to be physically inside the newsroom “it is often they call their sources, write the story and dictate by phone to the editorial secretary,” stated an undisclosed reporter. Journalists in the newsroom are the ones looking for a break for publishing. And these are the journalists who interested in utilizing ICTs in their work.

Al Ahram Journalists Use of ICTs in Daily Routine

Although the number of journalists/editors of Al Ahram formulate almost 40% of registered journalists in the Egyptian press syndicate, yet the newsroom was empty but for a few throughout the production hours (between 9:00-4:30). The maximum number of journalists who were present inside the newsroom was 43 journalists/editors in 2012 participation tier following the story of the burn of the Egyptian parliament on. The average number of journalists averaged 27 throughout the observation tiers. One of the main reasons interviews revealed is that journalists don’t need to be physically inside the newsroom “it is often they call their sources, write the story and dictate by phone to the editorial secretary,” stated an undisclosed reporter. Journalists in the newsroom are
the ones looking for a break for publishing. And these are the journalists who interested in utilizing ICTs in their work.

Observation analysis showed that acquisition of technology does not mean physical availability of technology. Conducting in-depth interviews, several journalists stated that that *Al Ahram* does not have enough ICTs available for them to use. “Computers are usually out of service,” This was further reflected in some of the comments provided by journalists stating that not everyone has access to Internet technologies or computers; others stated *Al Ahram* management are using obsolete technologies that cannot satisfy the pace of gathering and tapping information.

Twenty one years after the introduction of ICTs inside *Al Ahram* newsroom, journalists are still testing their way using ICTs in their daily routine. The majority of journalists do not use ICTs inside the newsroom. Quantitative survey showed that 23.2 percent of journalists/editors use at least one form of ICT once per day. On the other hands, 26.3 percent mostly editors and senior journalists (over 50 years old) stated that they don’t use ICTs inside the newsroom and do not intend to.

During the period of study, seventy-one journalists were seen using the computers during the entire period of study (averaging seven journalists per day) spending almost one hundred and four hours. The maximum number of journalists using computers was limited to fourteen over the span of 10 hours. Typing was seen as the primary use of computers inside the newsroom. Throughout the period of study, only six journalists brought their own laptop to do their work, half of them were in the 2013 wave of observation. Out of the six journalists, three brought their own mobile USB for Internet connection. The rest turned on two cables for Internet connectivity.

ICTs as a tool for their ‘personal use’ or to ‘pass time at work,’ not as tools that can help develop their work. Examining *Al Ahram* journalists’ response from the 2010-2013 interviews, reading publications online and checking personal emails are journalists’ top priorities while using the Internet. Elements of Interactivity with audience, browsing the Internet searching for information, exploring multimedia materials, among other computer assisted in reporting techniques are still rarely if not never used or observed used by *Al Ahram* journalists.

Doing their work, Journalists’ depended mainly on telephone. During the course of observations, six hundred and eight telephone calls were counted, besides three hundred and eighty mobile telephone calls. The ‘traditional brown-dasht papers’ are still seen as the primary form of writing news, and press releases from the cabinet of ministry and different other government bodies were seen lying throughout the newsroom. Results from the survey confirm the fact the journalists still depend on traditional forms of data gathering –Press releases, fax and *Al Ahram* sources. The closest new form of technology used by journalists is satellite television with 66.7 percent of *Al Ahram* journalists use Satellite channels as a source where journalists use on a daily base as seen by journalists response to interviews.
Using new technologies are seen as complement to traditional media. Journalists cannot present their news stating that the Internet or any of its sources is their primary source for information. The management will ‘immediately’ refuse. Internet is seen by the management as an add-on to the traditional news value seeing ICTs resources are seen an untrustworthy to the traditional government ‘news releases.’

*Al Ahram Journalists Online Sources: A Closer Network Look*

Studying browsing activities and bookmarks goes beyond studying how journalists are utilizing ICTs to ‘interact/ network’ with their online resources. Further studying links is important to understand journalists/ Organization attitude towards online sources. During the observation period, *Al Ahram* journalists searched for 68 links (18 links in 2010, 22 in 2012, and 28 in 2013). A closer look at the sources of links shows that all three organizations, *Al Ahram* depended on international ‘traditional’ sources (especially US based media including CNN, NYTMetaes, Los Angeles Times among others) than Arab and Egyptian ones. Further, it examining the links showed a the tendency of *Al Ahram* to search for traditional and official media. The majority of links from *Al Ahram* were from official sources which reflect the ‘official’ identity of the newsroom.

Observation showed that journalists from *Al Ahram* were mainly logged to Arab television channels online (mainly *Al Arabia* and *Al Jazeera*) searching for information on Arab affairs and position towards the Egyptian revolution or “information that are attacking Egypt political stand so that it can be dealt with ‘officially’” (Metwali, 2013). This was reflected in the link analysis with almost quarter of searched information is of political nature. Another 25 percent of the search was devoted to International news, culture, art and economy. It must be noted that all journalists search were from ‘official’ or ‘media’ sources. The only form of alternative media used in reporting was from journalists from the Sports section searching for tips and rumors from club fan blogs, and social media. This was also reflected in journalists search with 19 percent of links accessed came from sports departments.

Analysing the sources as networks, it is clear that *Al Ahram* maintains its closed ‘official’ chain network structure online. The management of *Al Ahram* allows for a limited number of predefined online activities that is followed by journalist. Further, only a few journalists have access to the online content and the management maintains ‘centralized’ control over the medium.

**Management Attitude toward ICTs Use inside Al Ahram Newsrooms.**

The reinvention of newspapers in the digital age needs another reinvention in the newsroom management attitude towards technologies. The quality of newspaper leadership is directly related to its ability to innovate and manage ICTs in the innovation process (McLellan, 2007). Throughout the For *Al Ahram*, the presence of ICTs is important for the “prestige” of the
organization, however the majority of journalists interviewed stated that they believe that *Al Ahram* management is not aware of the importance of the presence of ICTs inside the news organization. The majority of journalists stated that the editorial body does not consider the presence of computers or Internet infrastructure or applications as important as the presence of fax machines and telephones. Further, several journalists interviewed stated that the management does not encourage the journalists in utilizing the available technology. Several editors interviewed saw the presence of a faster printer is of more value than investing in ICTs infrastructure. However, editors of *Al Ahram* stated that they do have a 5-year plan to implement and develop more ICTs inside the newsroom.

Furthermore the organization sees that it is important to separate the “online journalism” and “online production from the “real newsroom.” Multimedia and online journalists are not invited to the daily news meetings during the period of study. Further the online department and staff of AMAC are not part of the organization planning meetings, “their role is still viewed as a supportive team whose jobs does not go beyond double checking information and or provide pictures or background information,” (Abdullah, 2010). For some of *Al Ahram* journalists, the online teams are seen as the “geeky technical guys” whose job does not exceed that of making PCs start, looking for paper jams in the photocopy machine and printers. Their journalism work does not exceed “archiving and presenting factual information,” stated undisclosed reporter.

A multiskilling newsroom is not among the priorities of *Al Ahram* news management, see journalists ability to interact with the sources, data analysis, using multimedia elements are not essential tools for their journalists. For *Al Ahram*, the skill journalists need to possess and master is to write “in *Al Ahram* style” properly and keep their ‘phone book in order with the proper sources.’

Journalists of *Al Ahram* were split in their attitude towards the utilization of ICTs. One group followed the management orders. “We want to keep our job and we want to build a career here.” “It is not easy to use ICTs when you will be prosecuted by your editor on your sources trying to publish” “re writing the PR releases are easier” as stated by a number of journalists. For another group, especially during the 2012 and 2013 observation round, and they were quite a minority, using the technology was important to develop their work, but not necessary tell the management about it. “The future of journalism is there and I need to be part of it” “No one can be sure to continue in this place… one day they can dumb you and you need to be ready using the connections you had but more importantly use the skills others possess” “I am actually optimistic that one day the organization will embrace ICTs and there will be a change in the organization structure and to be part of the ‘expected’ new order one needs to be ready,” as stated by a number of *Al Ahram* journalists.

Convergence as a concept is primarily used to document the emergence of new technologies inside the newsrooms, the changes in work routines and organizational structures connected to these new production arrangements, the redevelopment of news formats across all media and the
impact of these phenomena on journalistic work.

In that sense, convergence is fairly a new term for both the editors and journalists of *Al Ahram*. One editor of *Al Ahram* defined convergence as “a new set of printers that can be produce more work in less time.” For that same editor, technology is a new hype that is very fragile not suitable for journalism work. He stated that he is proud of the old typewriter inside his office. “Two sounds make my day, the voice of the typewriter, it is like I am a soldier and the sound of the keys are my bullets… the second sound is that of the printer rolling with the paper being printed.” Sameh Abdullah, the new appointed ‘new media’ editor, stated that introducing ICTs and convergence ideas is a threatening idea to many of the senior staff stand as a shield against introducing new ideas. “They like the status quo…sometimes ideas can be a threat to keep your position.” But not only the senior staff, are the threat towards introducing new ideas, the government is likes to keep its control over the organization. “Technology is used only to put the old content in a new serve better dissemination… convergence is a process and we will one day reach there one way or the other, but whom it serves is another question,” stated Adel, editor of AMAC.

**Figure 3: Convergence Strategy in Al Ahram newsroom**

To *Al Ahram*, convergence is a 5-year process where *Al Ahram* needs to implement through evolution. The process of convergence strategy depends on continuous negotiation between the multimedia department and the management and journalists to reach settlements on proposed plans. The plan (*See figure 3*) include developing and upgrading the current Infrastructure, wiring the newsroom, installing new computer stations. This goes parallel with introducing workshops to train journalists on using ICTs. The management will endorse the programs offering financial incentives for trained journalists to encourage them on acquiring ICTs basics. Other programs and incentives will further be developed over time to develop a multiplatform newsroom developing journalists’ ability to interact with the sources, data analysis, using multimedia elements. At the end of the first 5-year phase ICTs, according to Sameh, should be integrated into the policies of
the organization on the one hand and journalism practices on the other.

Measuring Convergence inside Egyptian Newsroom

Newsroom technological convergence passes through two stages, structural convergence, and information gathering convergence. For Al Ahram, it is still stuck in the tactical/structural convergence primary stage (See figure 1). Al Ahram management did not recognize yet neither the importance of ICTs infrastructure inside the newsroom nor utilizing ICTs in news production. Further, the management did introduce new positions except a multimedia editor ‘for future plans’ seeing his role is to develop the website structure to make it more appealing to attract ‘the lost audience.’ Many of Al Ahram journalists recognize the importance of multiskill reporting and indeed some of them are bringing their ‘own technological gadgets’ to develop their own work. These attempts are considered individual attempts to be part of the ‘published groups,’ not a structural plan of involving ICTs in production. Participant observation and interviews showed that the management only accepts information from ‘official’ and ‘credible’ sources. Finally, the news organization is still shoveling its offline content online. Although the management publishes its online content for 20 years yet the management is not committed to update the website content. Even when breaking news occurs, the management philosophy is to publish the content in the ‘original’ offline version first. With no original online content or interaction with the audience, no plans for multi-platform publishing, Al Ahram content is still rapt in the first phase online journalism.

Further, converging Al Ahram newsroom is following a ‘difficult convergence’ model. ICTs technological convergence is not a central plan to the organization strategy, who aims at keeping the status quo. Looking at the Egyptian government as the newspaper’ audience, makes Al Ahram leadership committed no trying to adopt technologies that can bring criticism to the management by aligning to the audience agenda. Similarly, Al Ahram management is not characterized as an ‘innovative culture’ or ‘risk taking’. Adopting new technologies needs to be approved by the government. For example, for the past 15 years Al Ahram has been trying to partner with Egyptian television to create pro-government news network that has an online presence linked to Al Ahram website. However the government disapproved of Al Ahram plan fearing that such partnership can liberate their ‘agenda.’ Furthermore, convergence is also following the “difficult model” since Al Ahram newsroom is not integrating ICTs inside the newsroom and that online production is segregated from the newsroom. The majority of journalists are not informed about the online production. Similarly, the online staff is not invited to attend daily meetings or development plan meetings.

Conclusion

In order to answer the first research question, ICTs as technology is often thought to bring radical and fundamental change at the organizational structural level, where the boundaries between
original and new traditions of communication are becoming less clear and the relationship between different forms of media production are characterized by increasing co-operation and compatibility.

Dealing with Al Ahram media organization, ICTs diffusion proved to be a form of slow evolutionary rather than revolutionary. In terms of technology ICTs are available in the newsroom; however, the management main focus is the traditional printed version. It is clear that organization does not integrate ICTs within newsrooms for the purpose of the development of the work quality. For *Al Ahram* news organizations, ICTs is an added value primarily serving as an international edition to the organization’s original print. News organizations don’t encourage using online material without attributing information from a reliable source; i.e. the government. It is the journalist's decision to use ICTs in his work production.

*Al Ahram* Organization websites further assert the current climate that newsroom convergence is rather evolutionary. *Al Ahram* news portal was described by the majority of journalists as being ‘fairly’ designed and ‘Poorly’ administered and moderated. Journalists further testified that the websites fail to attract audience, since the majority of the content is shoveled from the printed version. Interview analysis indicated stagnation in *Al Ahram* news organization online presence where most organizations fail to present original online content, update information presented, or interact with their audience. Furthermore, journalists testified that their news organizations do segregate between online and traditional journalists where online journalists seen as second-class journalists. Online Journalists are seen as assistant journalists whose job is to build news archives or help journalists produce their ‘real work.’

Reviewing Journalists' attitude towards incorporating ICTs in their routine, showed diffusion of ICTs ‘online’ elements in their ‘offline’ routine activities. It is clear that journalists do use ICTs for developing their own work and in order to keep up with the competition in the market. However, the journalists’ level of interactivity with news media did not exceed tapping information online. Both observation and interviews showed that the idea of network journalism is still in its initial stage. Several news organizations as well as journalists stated that audience role is not of particular importance in the process of news making. The failure of *Al Ahram* to look at ICTs audience networking potentials forced respondents to look at other online alternatives where they can look for ‘news’ information, communicate, interact and network regarding topics of their concern.

Furthermore, many journalists failed at seeing their organization websites as a ‘space’ for journalist- audience/ audience-audience networking. The increasing number of journalists who remained impartial towards these questions showed that journalists can not yet find the proper tool to communicate and interact with their audience. Few journalists reported that they rarely join networks or create network community to communicate with audience or sources of information. In addition, journalists, who reported to agree that news organization websites should be a tool for communication between journalists and their audiences due to the importance of the role of
audience feedback in the process of journalism making, stated that they usually do not interact with audience and only few journalists reported using audience feedback while reporting.

It can be concluded that there still are barriers that hinder the full adoption of ICTs into news production. Individual barriers, organizational, technological, professional, legal, and governmental barriers are defined as the main problems hindering the evolution of the adoption. Although time changed the dynamics, the order and the levels of barriers, however time also showed an increase in the intensity of the problems.
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