Bridges of the Revolution

Linking people, sharing informations and remixing practices

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1. The Arab Spring: A “2.0” phenomenon

There is a fierce debate still ongoing among academics, journalists, pundits and even revolutionaries themselves about the relationship between the so-called “Arab Spring” and the internet. The issue is whether or not social media have been the “tsunami” behind the success of the uprisings against the regimes in Tunisia (December 2010) and Egypt (January 2011), and behind the “domino effect” these events have caused in the whole MENA region.

By focusing on actors and strategies rather than simply on tools, this article takes position on the topic by arguing that the Arab Spring has been intrinsically a “2.0” phenomenon. Such a sharp statement shouldn’t be read as an endorsement for idea that what happened on line was more important than what happened down in the squares. Neither we are claiming that all the subjects involved in the uprisings were “geeks” or even internet connected. On the contrary the Arab Spring has been characterized by a high degree of diversity among participants, and competence on web tools and platforms is not an exception in this regard.

The pivotal idea of this article -which directs its attention on Egypt and Tunisia not just as the countries where regime’s decapitation succeeded but also where the system we are going to describe has worked at its best - is that the architecture of the revolution was shaped according to some of the main features of web 2.0 as a cultural milieu. And this applies both for what happened online and offline.

We will show how linking, sharing, remixing- key features of the web 2.0 as network of social relationships- have been among the core practices behind the organization of social movements beheading the regimes in Egypt and Tunisia. This has been made possible by the emergence of a new and heterogeneous élite fully embracing what has been defined as the “culture of the net” (cfr. Castells 1996, Tapscott 2009) or more specifically the “remix culture” (Lessig 2008). Such a new élite has developed what could be defined as the connective tissue of movements. We are referring to people commonly defined “techies” or “tech-savvies”: subjects sharing a high degree of familiarity with the web milieu, having competence on ICT, frequently, but not necessarily, based on technical skills. Tech-savvies in fact not only
dominate technology, they are used to think, build relationships, develop ideas and solve problems within the web 2.0 ecology. These skills have been crucial in creating and maintaining the networks connecting the already existing and stronger -but often isolated- social networks (factories, universities, unions, mosques, families etc.) representing the real engine of the “revolution”.

2. Bridge leadership and social movements: linking, framing, and “bricolaging”

Within the vast literature on social movements, there is an expanding section dealing with the issue of leadership. Most of it presents the peculiarity of this kind of leadership as linked to the uniqueness of movements as social and political entities.

According to della Porta and Diani (1999: 16) social movements “are not organizations, not even of a peculiar kind”; on the contrary they are “networks of interaction between different actors which may either include formal organizations or not, depending on shifting circumstances.” Melucci (1996: 344) stressed the fact that, assuming contemporary social movements the shape of segmented and “polycephalous” networks, “it is difficult to identify once and for all a set of stable leadership functions, which would concentrate themselves into a single entity”.

Starting from these premises it might be argued that whether the decentralized and networked structure of movements implies segmentation in leadership’s functions, developing and cultivating the network is possibly the most important one. This means that, in contemporary movements, subjects working as “brokers” of connectivity play a crucial role within the leadership élites (Diani 2003). As Campbell (2005) building on Keck and Sikkink

__1__ The methodological grounds of this research work might be found in different arrays of qualitative analysis. Interviews with members of Regional Arab Tech Community have been collected, in different periods, from 2007 to 2010. After the “Arab Spring” events in Tunisia and Egypt erupted (December 2010- February 2011), a new round of interviews and conversations with key figures of the Community having played active roles during the uprisings have been conducted between March and May 2011. Monitoring of selected Blogs as well as Facebook and Twitter profiles and of popular Twitter “hashtag streams” has been conducted, starting from 2009, participating in conversations, information sharing and advocacy actions online. Analysis of meetings’ schedules, lists of participants, written memories, documents produced and pictures (mainly shared on Flickr.com) of Tech events organized in the Arab Region (with particular attention to Tunisia and Egypt) from 2006 have been conducted. Participant observations in events attended by Arab Tech savvies (in particular Al Jazeera Forums in Doha from 2006 to 2011 and Creative Commons Regional Meetings 2008 (in Doha) and 2011 (in Tunis) have been undertaken. Such an ethnographic approach was primarily aimed to track down the process of establishment of relationships (at local, national, regional and global level) between Arab Tech-Savvies. Secondly it was considered fruitful to investigate the definition of shared values and practices defining the unifying culture of such communities. Finally, interviews, informal conversations, observations of online activities and participation in meetings and gatherings during and after the uprisings have been carried on to understand how the already monitored communities acted within the movements involved in the Arab Spring.

Donatella Della Ratta, Arab Media researcher and Creative Commons regional manager for the Arab World, should be acknowledged for her generosity in sharing a treasure of informations, memories and material.
(1998) writes, the structure of movements as sets of “networked social relationships” is what shapes and constrains people’s behavior and opportunities for action.

Stressing the importance of a connective leadership within contemporary social movements doesn’t mean underestimate the increased facility with whom groups are today able to self-organize. On the contrary it allows to better understanding the dynamics of organization of contemporary social movements without adopting the univocal and misleading distinction between “leaders” (active role) and “followers” (passive role). Now, according to literature (e.g. McAdam, McCarty and Zald 1996; Melucci 1996, Della Porta and Diani 1999, Diani 2003; Snow, Soule and Kriesi 2004), from the point of view of connection and organization the main tasks for social movements’ leadership are: developing and expanding the network of the movement; circulating informations (inside and outside the movement) and framing them in ways that might generate support; defining incisive strategies in order to confront the opponents.

Within ecosystems where also constituents might play these roles, how exactly a connective leadership is still and even more crucial? The concept of “bridge leadership”, discussed by various authors (e.g. Robnett 1977, Goldstone 2001, Morris and Staggenbord 2004) in social movements studies, helps in tackling this slippery. Most of such literature nevertheless explored the “vertical” dimension of the bridging process: “Bridge leaders are those neighborhood and community organizers who mediate between top leadership and the vast bulk of followers, turning dreams and grand plans into on-the-ground realities” (Goldstone 2001: 158). On the contrary the same function is relevant also if oriented to the “horizontal” dimension of the network, where weak ties and strong ties relationships coexist. Moreover the bridging activity is crucial in establishing and cultivating relationships with stakeholders: activists of similar movements around the world, “diasporic” activists, slacktivists, the mainstream media etc. (Morris and Staggenbord 2004).

Even in the so called “information politics” (Keck and Sikkink 1998) the role of a bridging élite is crucial. Information politics is the process of collecting informations about the issue of interest, the activity of the movement, the misbehaviors of the opponents, deploying these informations in strategic ways in both national and transnational public arenas (Smith 2004). It is what in social movements’ literature (e.g. Snow and Benford 1992; Zlad 1996; Benford 1997; Jasper 1997; Benford and Snow 2000; Oliver and Johnston 2000; Williams and Benford 2000; Westby 2002; Snow 2004) is usually called “framing process”. As Zlad (1996: 266) wrote: “Social movements exist in a larger societal context. They draw on the cultural stock of images of what is injustice, for what is a violation of what ought to be”. This means that while
producing and sharing informations (text, pictures and videos), inventing slogan, dialoguing with the media and organizing performances, movements constituents are involved in a symbolic bargain in order to generate consensus for their action and to discredit opponents. Traditionally only top leaders have been in charge of this symbolic work because of their access to mainstream media. Within the contemporary media ecosystem, such a production of content has became a participative process where items might come from peripheral constituents (Meikle 2002). It is thus evident that the role of an elite group functioning as “framing hub” able to order, tag, organize and add details to crowd-sourced material is important for the success of the framing strategy of a movement.

"Bricolage" is often evoked in social movements literature (Clemens 1996, Keck and Sikkink 1998, Morris 2000, Campbell 2005), also referring to the definition of the best strategies, tactics and practices to be adopted: “Change in practices generally results from a blending of bits and pieces from a repertoire of elements. This may entail the rearrangement of elements that are already at hand, but it may also entail the blending in of new elements that have diffused from elsewhere” (Campbell 2005: 56). This idea implies two structural conditions: the first is that a movement has to be well connected with other realities in order to have the chance to browse through other repertoires of action, the second is the ability for combining, mixing, experimenting and innovating.

From this excursus on leadership and contemporary social movements, the relevance, within the “leadership team” (Disney and Gelb 2000), of a group of connectors -or bridge leaders- has clearly emerged. What we are claiming here is that, during (and before) Tunisian and Egyptian “revolutions”, such a bridging role has been played at its best by a diverse élite of “tech-savvies”, increasing the strategic capacity of the movements they were involved in.

**3. Remix Culture and the revolution: build up your community!**

Before explaining how such élite managed to accomplish its tasks, it is important to explain which features its members shared and what kind of community they have been able to develop. Analyzing the biographies² of Tunisian and Egyptian playing –as it will be shown- bridging functions during the revolution, it is impossible to ignore that a large majority of them has a background, in many case even a professional one, dealing with ICT. Here we will call them “tech-savvies” (TS): Web engineers, developers, ICT start-up entrepreneurs, online marketing strategists, web editors and lawyers on the for-profit side; tech-oriented Ngos’

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² See first and second columns of Tables A and B for selected examples.
animators, open software advocates, administrators of collective blogs and aggregators on the no-profit side.

As already observed in other Arab contexts (Della Ratta and Valeriani 2011), within the Tunisian and Egyptian tech-communities there are consistent overlappings between people involved in for-profit and no-profit ICT initiatives. Della Ratta and Valeriani (ibidem) showed how this hybridization is often reflected in a common representation of the role that technology might play in society: the development of new infrastructures supporting people in connecting each other, sharing ideas and implementing common projects is seen as one of the main contributions ICT might give to societies.

This idea fits with many of the features and values characterizing the Net Generation as investigated by Don Tapscott (1999, 2008). However, if we might talk about a “net culture” globally shared by a generation it is impossible to ignore that, within each generation, just a smaller group might really embrace “the spirit of the time”. Despite their different no-profit or for-profit orientation, TS, might represent at best this vanguard because of the appropriation of the “net norms” which is intrinsically connected to their socialization and, in some cases, to their professionalization.

According to our interpretation many of the bridge leadership’s features resonate in some ways with the norms of the “net culture”. To better understand these proximities we suggest to start from using, instead of “net”, a different term, which is “remix culture” (Lessig 2008), apparently more narrow but dense enough to grasp the most disruptive elements of such culture, also in term of social relationships. Remix culture is a theorization by Lawrence Lessig and it is mostly related to the production, circulation and protection of intellectual goods within internet dominated economies and ecologies. Remix Culture is defined by Lessig as a “read and write” environment where all members are “pro-sumers” continuously consuming, mixing, and producing new material. In Remix Culture everybody is free to add, change, influence, and interact with his own cultural milieu.

This idea has important implications also for social relationships, something that has been intriguingly theorized by Isaac Mao3 under the concept of sharism: “Sharism is an ideology for our Internet Age. It is a philosophy piped through the human and technological networks of Free and Open Source software. It is the motivation behind every piece of User-Generated

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3 Isaac Mao is a venture capitalist, blogger, software architect, entrepreneur and researcher in learning and social technology. He divides his time between research, social works, business and technology. Mao has written extensively about on-line journalism, and advises Global Voices Online and several web 2.0 businesses (http://en.wikipedia.org/wiki/Isaac_Mao). He has been a fellow of the Berkman Center for Internet and Society at Harvard; while at Harvard Isaac has developed his ideas on sharism (www.sharism.org)
Content. It is the pledge of Creative Commons, to share, remix and give credit to the latest and greatest of our cultural creations. (...). The more open and strongly connected we are, the better the sharing environment will be for all people. The more collective our intelligence, the wiser our actions will be.”⁴ It is thus evident that Remix Culture and Sharism are based on connecting, (re)-framing and bricolaging. Remix, however, is even more than bricolage -which is a simple “cut and paste” action- in fact it implies the establishment of a relationship (connection) with a community of peers with whom sharing, discussing and learning from results, strategies and practices.

In our vision, what made Tunisian and Egyptian TS -especially those more committed to free and open software (FOSS), Creative Commons⁵ (CC) advocacy, copy left, net-neutrality, freedom of the net etc. - the perfect “potential” bridge leaders for the movements beheading the regimes was their confidence and adherence to a peculiar system of values, practices and representations of reality: in a word, their culture. Obviously we are not arguing that all the Tunisians and Egyptians TS acted as bridge leaders, neither that all of them have been, in some way, actively involved in the Revolution.

How such a connective tissue has developed? In other words, how have the communities of “tech bridge leaders” established themselves and their regional and global outreach? In this sense it might be argued that the community came before the mission. The community of TS who acted as revolution Bridge Leaders came together during the years around specific initiatives and events, often related to freedom of the web, open technology and CC promotion⁶. This is not to say that these communities weren’t politicized or that among their members there weren’t political activists. On the contrary some of the seminal activities that built the communities were related to important political events.

Although the pioneers started political activities on line back to the end of the Nineties, in 2005, in occasion of the World Summit on the Information Society in Tunis, a group of tunisian TS (among them Sami Ben Gharbeia, Howeida Anwar, Riad Guerfali) created the “Tunisian association for the defense of cyberspace” (ATPD- Cyberspace⁷), in order to bring national and international attention on web censorship in the country and organized the

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⁴ http://wiki.sharism.org/Main_Page
⁵ “Creative Commons is a non-profit devoted to expanding the range of creative works available for others to build upon legally and to share. The organization has released several copyright-licenses known as Creative Commons licenses free of charge to the public. (...) CC has been described as being at the forefront of the copyleft movement, which seeks to support the building of a richer public domain by providing an alternative to the automatic “all rights reserved” copyright, dubbed “some rights reserved”." (http://en.wikipedia.org/wiki/Creative_Commons)
⁶ See third column of Tables A and B.
⁷ http://tounis.blogspot.com/
“Yezzifock!” (Enough is enough) online campaign immediately crushed by the regime. During the same period in Egypt the Kifaya! (Enough!) movement, which was coordinating the protests against the regimes before and during the 2005 presidential elections, had a group of TS (among them Alaa abdel Fattah, Manal Hassan, Ahmad Gharbeia) among the young animators.

However, it has been mainly around tech-events and campaigns that these communities have grown up, enlarged and tested their ability. To mention just few of these occasions: in Egypt the first Linux Install Fest has been organized in 20048; from 2007 Arab Digital Expression Youth Camps9 have started; in September 2010 the first Creative Commons Iftar10 took place in Cairo. In Tunisia from 2007 Software Freedom Days11 have been held and, from 2008, Ubuntu Tunisian Team12 started organizing Install parties. Researching on participants memories, events’ programs, speakers and participants’ lists, transcriptions of talks, blog posts and even pictures13, clearly emerges how during these gatherings and initiatives the communities of TS were structuring themselves and how TS who later acted as bridge leaders during the Arab Spring were starting to develop common initiatives.

FOSS and CC events, within authoritarian contexts where freedom of expression is limited, become by default occasions for discussing even of political issues. However the fact that the main framework for the discussion was a common commitment for an open web environment and that the unifying “grammar” was a good competence in Remix Culture’s values and practices had important consequences. It favored relationships between people with different political background and between activists and people with no political background. In this regard the development of these communities has been helped also by repressive policies adopted by the regimes. As referred by different sources14, when Ben Ali regimes imposed a crackdown on the web blocking platforms used by everyone to share videos and pictures (YouTube, and Dailymotion from 2007, Facebook just for 10 days in 2009) new relationships between political and non-political TS emerged to develop common strategies to circumvent censorship through proxies and other devices.

Tunisian and Egyptian TS communities haven’t developed just around open software advocacy: Remix Culture is also about sharing and remixing contents. On this side two

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9 http://arabdigitalexpression.com/en
10 http://arabic.creativecommons.org/cciftar
11 http://sfdtunisia.freehostia.com/sfd06/index.html
12 https://wiki.ubuntu.com/TunisianTeam
13 See notes from 8 to 12.
14 Among them Malek El Khadroui, personal interview (togheter with Zeynep Tufekci) Doha, March 2011.
elements have been crucial: the creation of blog aggregators and collective blogs (like the Tunisian *nawaat.org* created in 2004 and the Egyptian *manala.net* created in 2005); the emergence of “power bloggers” functioning as information hubs, highlighting also the work of “niche bloggers”. In Egypt, in particular, some blog personalities, like Wael Abbas or Nora Younis, have emerged and have been able, linking, sharing and remixing the work of other bloggers, to bring attention to many sensitive issues during the last years (Faris 2010).

Bridge leadership is also crucial in the development of transnational relationships in order to make possible the exchange of informations and strategies. Tunisian and Egyptian TS have been involved (together with their fellows from the whole region) in the developing of a regional network of peers at least from 2008. We might talk of a new “pan-arabism from below” (Della Ratta 2009), where Remix Culture has worked as the common ground to favor the virtual and physical encounter between TS from all the Arab World. Also in this case Tech, Foss, CC events have been crucial in the establishment of the regional community: from 2008 Arab Techies Meetings have been held in Cairo, with a subgroup Arab Women Techies gathering from 2010 in Beirut. Reading from the mission statement of the group: “While their social role is not always recognized by their communities and sometimes even by the techies themselves, they play a pivotal role, they are builders of communities, facilitators of communication between communities, they offer support, hand holding and transfer of skills and knowledge and they are transforming into gatekeepers to an increasing diversity of voices and information. Hence the need for an event to bring those isolated techies together and build a regional community, to share experiences and knowledge, learn from each other and collaborate on solving common problems”. Again in Cairo, in June 2010, the first Foss in the Arab World Meeting has been organized with different panels discussing open sources related issues, among them how censorship negatively affected the spreading of OS in the region. Also at this level, tracking down the network of people behind the organization and animation of these events and looking to participants’ lists, it emerges how the Tunisian and Egyptian communities of TS “bridging the revolutions” have built their regional relationships within this framework.

In Beirut, from 2008, the global network of bloggers *Global Voices on Line* (GVL)\textsuperscript{15} together with Heinrich Böll Foundation and with the economic support of HIVOS and Open Society Institute\textsuperscript{16} have organized the Arab Blogger meetings (second in 2009), another crucial event

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\textsuperscript{15} Also Global Voices on Line is a product of Berkman Center for Internet and Society at Harvard.

\textsuperscript{16} The analysis of the economic and organizational support given to Arab TS communities by different non-Arab governmental and non governmental actors is out of the goals of this article. However, as the example of the
for the development of the regional TS community. Analyzing Arab Blogger Meetings schedules and participants’ lists\(^\text{17}\), as well as considering the Arab “contributions”\(^\text{18}\) to GVL is crucial in order to understanding also how global relationships have been developed\(^\text{19}\). In 2009 Meeting Jacob Applebaum, a prominent figure of the global hacktivists’ community and the security expert behind \textit{Wikileaks} security system, was invited to give a workshop on cyber-security. Nasser Wedaddy, a Mauritanian Washington-based blogger, leading figure of the American Islamic Congress (one of the organizations lobbying for American Muslims in DC) and “master networker” highly connected with American mainstream media, also attended the meeting.

The fact that Tunisian and Egyptian TS (e.g. Rami Raoof, and Ahmed Gharbeia) were (and are) Global Voices Bloggers, while the Tunisian - Holland based as political refugee- Sami Ben Gharbeia acts as general coordinator for the Advocacy Section of GVL, put them in contact with a global network of bloggers. Under the umbrella of GVL thus, a plethora of trust and friendship relations have been developed, a “reputation capital” revealing crucial during the revolutions to globally circulate informations. Moreover the fact that some of the Tunisian and Egyptian TS were expatriated\(^\text{20}\) in Europe, in the Usa, in South Africa or in the Persic Gulf for political or professional (or both) reasons make them in the privileged position for establishing transnational contacts useful for national communities.

\section*{4. “Sharing the Spring”\(^\text{21}\)}

Till now we have discussed the features of Tunisian and Egyptian TS’s culture and socialization that facilitated their transformation in bridge leaders during the revolution. However it is impossible to ignore the role of web 2.0, as a framework altering patterns for social connection and action (see Castells 1996 and 2007, Lovink 2002 and 2003, Meikle 2004, Weinberger 2007, Shirky 2008).

\begin{footnotesize}
\begin{itemize}
\item Arab Blogger Meetings clearly shows (www.arabloggers.com), US and European funds have been important in the establishment of TS regional communities, mainly through events and workshops organization.
\item Arab Blogger Meetings programs might be found at www.arabloggers.com. For full participant list in Arab Blogger Meeting 2009 I should give credits to Donatella Della Ratta (CC), for other informations on Arab Blogger Meetings organization to Doreen Khoury (Böll Foundation). Some of the pictures analyzed might be found at http://www.flickr.com/photos/os/sets/72157622956406520/with/4190723273/
\item In term of blog posts and advocacy activities during the years.
\item See Table C for selected examples of Arab and non-Arab TS who played bridging functions during Tunisian and Egyptian revolutions.
\item See first column Tables A and B, indicated as "expat."
\item The title of this paragraph, “Sharing the Spring”, was the slogan of the third Creative Commons Arab Regional Meeting held in Tunis in May 2011. The fact that the CC Arab Community, at its first meeting after the \textit{Arab Spring}, chose to allude to the importance of sharing the seeds of the revolution even through creativity and arts, might be considered a proof of the thesis proposed in this article.
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Facebook wasn’t the engine of the Tunisian and Egyptian revolutions. The most important social networks have been the traditional ones: universities, factories, unions, mosques, political parties and kinship ties. Moreover it is a fact that, for a large majority of Egyptian and Tunisian people, mainstream media –especially Al Jazeera-, and not Twitter, have been the main news sources and producers of symbols during the events bringing to the fall of Ben Ali and Mubarak. However it should be observed that all these traditional agencies and agents have functioned -in themselves, in their mutual relationships and in their relationship with the regimes- in new and different ways compared to the past. This happened also due to alterations in patterns of social relationship and action for what the web 2.0, and online social networks, as information and relational ecosystems are responsible.

In this sense, among the effects described in literature (e.g. Lovink 2002 and 2003, Meikle 2004, Weinberger 2007, Shirky 2008), two have been crucial in the development of the architecture of Tunisian and Egyptian revolutions. Alaa Abdel Fattah22 and Zeynep Tpfeuci23 (respectively a protagonist of the Arab Spring and one of the most promising sociologist of the web), speaking at Personal Democracy Forum24 2011 in Washington, have described these effects as the deconstruction of the “isolation” and “saturation” paradigms. Both paradigms are related to flows of informations and patterns of organization, however we propose to consider the first one as more affecting communication within a social system and the second as impacting collective action.

Deconstructing isolation paradigm means understanding how, within a context where the web 2.0 tools facilitate the development of a networked many-to-many communication based on fast speed connections, it becomes more difficult hindering the diffusion of informations outside of the place or the group where they have been produced. This means that for an authoritarian government it becomes increasingly difficult to isolate an uprising at its seminal level. On the other hand, the end of saturation paradigm refers to the idea that web 2.0 and SM modify the essential conditions to mobilize an institution, an agency or a structured group. When some of the constituents might develop relationships, share informations and be involved in actions even if the whole institution they are members is not fully mobilized or even if people occupying key positions are not involved in the mobilization, it means that you don’t have to saturate such a space to “shake” it. Our Thesis is that Egyptian and Tunisian TS as bridge leaders have worked as multiplers for such effects.

22 http://www.youtube.com/watch?v=BfVVk2_T9AY
23 http://www.youtube.com/watch?v=67XXm-RukKg&feature=youtu.be
24 http://personaldemocracy.com/
4.1 Information communities and their managers

The development of information communities (IC) has been the key element characterizing information flows during the Tunisian and Egyptian revolutions. According to MacKinnon (2004: 6): “Interactive participatory media transforms a one-way conversation between media and “audience” into a conversation with an information community. While information flows through traditional media in a linear fashion, information flows through online participatory media in a multidirectional, self-replicating viral fashion”. ICs are communities developing themselves around the circulation of informations, where members earn trust and reputation on the basis of the quality of the information they have shared. Although in ICs everybody might play an active role, not every member has the same function and power, within the community and in the relationship with outsiders and other communities. Even ICs need community managers in order to develop at best their potential. Linking, framing and remixing information are the core functions of these managers.

Tunisian and Egyptian TS in their bridging function have been crucial in this sense. The different ICs they have contributed to manage made possible information flowing at different levels, contrasting the “isolation strategies” adopted by regimes. ICs have in fact allowed multidirectional information exchanges at least at three levels: between the center of the events and the rest of the country; between national blogosphere and transnational info-activism; between citizen journalists and professional journalists (mainly at transnational level). Sami Ben Gharbeia25 talking about the role played by nawaat.org crew used the term “curators”. This concept stress the fact that if the “isolation effect” has been circumvented through a “micro-pipeline system” – where people multiplied the directions of the flows using social networks, blogs, SMS and landline telephones– it has been crucial that someone with connections, reputation and skills checked, edited and organized the information in order to make them easily accessible.

Most of the platforms used to collect and organize information were already there, used with different or broader purposes, but they all already had a community around them: nawaat.org, facebook pages like “we are all Khaled Said”26 in Egypt, but even the personal

25 During his speech at the 3rd Creative Commons Arab Regional Meeting, Tunis 30th June-2nd July 2011.
26 http://www.facebook.com/ElShaheeed. The Page was created after Khaled Said, a young computer developer was beated to death by Egyptian Police in a Cyber Cafe of Alexandria (Egypt) on 6 June 2010 after refusing to show his ID card. The picture of the brutalized body of Khaled went viral on the web, starting a wave of indignation that mounted also among non-activists. The Facebook page created to mourning Khaled become Egypt’s biggest dissident Facebook Page and was administrated by the then famous TS Wael Ghonim. Ghonim is
accounts of some TS become the place where a collective narrative of what was happening in the streets has been developed. Keeping such a narrative collective but, at the same time, organizing it, TS facilitated a process of appropriation of the same story also by people with completely different backgrounds: different people could be moved by different segments of the main picture.

TS in fact are familiar with the idea of protecting sensitive informations but at the same time attributing work to original sources (linking), tagging (framing), viralizing and developing multivoices stories (remixing). It should be noted in fact that (excluding what has been shared just through social media) almost all the content produced was on platforms using Creative Commons licenses. When sharing and remixing is a constituent element in your usual approach to the web it becomes easier and natural to do the same thing when you are “bridging” a revolution which is happening in different cities, squares, villages. When Alaa Abdel Fattah said27: “we used technology because technology is intrinsically part of our life”, he was not just referring to tech-tools, but also to tech-culture.

In order to develop such a common narrative, the relationships established through years by Tunisian and Egyptian TS have been crucial to make the sharing process faster and more accurate. When Zouhair Makhlouf28 started covering what was happening in Sidi Bouzid on December 17 his relationship with nawaat.org was already strong and the same was true for Howeida Anouar29 and for many bloggers covering events from different perspectives and locations.

Long time established relationships among TS communities, have been crucial also for the developing of common narratives and the sharing of information at regional and global level. This was important both for the development of multidirectional flows of information and for the enablement of a regional snowball effect. As showed30 also by the computational analyst Kovas Boguta most of the information shared on Twitter about Egypt during the hot days in January 2011 was produced by users that are part of the regional TS community and its global

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27 In his talk at PDF washington 2011, see note 22.
28 Zouhair Makhlouf is a well known Tunisian opposition journalist persecuted by Ben Ali regime. According to our interview (Tunis, June 2011) with Malek Khadraoui, one of the nawaat.org administrators, Makhlouf was the first in covering the clashes in Sidi Bouzid on 17 december 2010.
29 Howeida Anwar is a Tunisian TS and blogger, she has worked with different collaborators on projects revolving around Advocacy and Citizen Journalism, among them reveiltunisi.org. She was active as information hub before and during the revolution.
appendices. Moreover, according to our interviews with participants, some Google Groups, created to prepare and follow up tech-gatherings, together with new ones established for the “revolutions” and Skype conference calls, have been used to share informations and coordinate communication strategies at regional level. It might also be mentioned, considering how the use of the same slogans has been crucial to develop a common iconography for the revolution also at regional level, that a page originally created by nawaat to collect all the slogans used in the Tunisian streets, has been, when shut down, re-established by the Egyptian TS Rami Raoof.

Moreover, considering that shouting down the web has been one of the first strategies tried by the regimes in order to reproduce an isolation strategy, it should be noted that the bridging function played by TS communities has consisted also in the development of technical devices and solution to circumvent web blockages. A good example might be the “Alivein” project managed by a group of TS including Habib Haddad, a Lebanese web entrepreneur and the meedan.net team-all of them “veterans” of the Creative Commons Arab community- in order to transform (and translate) landline phone calls in tweets. Moreover an alternative web working on the old dial-up system was established by Alaa Abdel Fattah, Manal Hassan and Mona Sosh to keep alive the internet communication during the three days shut down imposed by Mubarak. In this really “geeky” project they have been advised from abroad by Jacob Applebaum, as already said, in touch with the community since 2009 blogger meeting.

Transnational cooperation, coordination and information sharing to achieve common goals were practices already tested by TS in previous occasions. This experience was important in order to win a supportive coverage from global mainstream media. National TS were in charge of collecting, checking, adding context infos to the text, photos or videos shared, while regional and global counterparts used their popularity and credibility to reach a wider transnational audience, including also professional journalists and officials. On Twitter and Facebook regional “power users” worked as hubs in some cases re-framing information in order to adapt them to a wider or a specific target. To accomplish their function, in particular in the relationship with journalists and officials, it was crucial avoiding mistakes, hoaxes and rumors otherwise they would had lost their credibility. As emerged in many of our

31 Google Groups is a Google tool that supports discussion groups, based on common interests.
32 http://alive.in/ The project, tested in Egypt has been later extended to other countries, among them Libya, Bahrin and Syria.
33 Meedan.net is a social network where a multi-language community shares conversations and links about world events. Everything that gets posted on meedan.net is mirrored in Arabic and English. The system is based both on automatic translation and on the grass-roots works of the members of the community.
interviews, regional TS like Amira Al Husseini (Arab world coordinator for Global Voices) and the DC based Nasser Wedaddy had frequent email and sms exchanges, phone call conversations, Skype conference calls with Tunisian and Egyptian TS on the field, to double check and define common strategies to disseminate informations.

The function of Nasser Wedaddy was crucial in this regard. Being based in Washington he was “in charge” of a crucial node: appearing frequently on American 24 hours news channels, participating in public debates in DC universities and think thanks he played an important framing role in the American public representation of the Arab spring.

Analyzing the role played by a common ground in “remix culture” it is important to consider that also professional journalists might have been socialized to RC and being naturally inclined to establish relationships with TS, sharing and using material produced by them, being part of the community. Moreover the presence of a journalist or of a community of journalists advocating for remix culture might, in some cases, bring a whole news organization or a section of it closer to remix values and practices.

The most interesting example in this sense is represented by Al Jazeera (AJ). Putting aside the political aspects and implications of the editorial line followed by AJ covering Tunisian and Egyptian revolutions and focusing on the way it worked on information and material produced by citizens, it should be noted that cooperation with TS has been intrinsically part of AJ newsmaking. This cooperation has been based on relationships developed during the years and rooted also on the adherence of part of the AJ editorial board to RC and also to initiatives that AJ as a brand has undertaken to connect itself to RC, in particular to Creative Commons.

Focusing on people we should start from the fact that within the AJ new media team many people are TS themselves: they are familiar, advocate and use (even in AJ platforms) open software and participate in regional and global Tech and Geek events. People like Mohamed Nanabhay (head of online), Moeed Ahmad (head of new media), Muhammad Bashir (New Media Planner) or Bilal Renderee (new media producer) are highly connected to TS communities, being actively involved in discussions about cyber security, Drupal use, online community organization etc. Moreover they have been crucial in persuading the management in establishing and developing a relationship between AJ and Arab Creative Commons community. In December 2008 AJ was the first professional news organization launching a Creative Commons repository where it stored exclusive footage released under CC most

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34 Both Nasser Wedaddy and Amira Al Husseini have been interviewed at the Al Jazeera Forum, march 2011, Doha (Qatar).
35 http://cc.aljazeera.net/
open license and in 2009 the annual AJ Forum hosted the first Creative Commons Arab Meeting. The first CC Iftar\textsuperscript{36} organized in Cairo in 2010 by the Egyptian CC community was attended also by Ayman Mohyeldine, AJ correspondent in Egypt, who presented the work of his news organization with CC licenses.

Both from content analysis and interviews clearly emerges how AJ coverage of Tunisian and Egyptian revolution was based on a strong cooperation between national and regional TS communities and AJ journalists in a process of linking, framing and remixing information. Not only TS, gave AJ journalists contacts and telephone numbers of witnesses, suggested stories and frequently participated in programs and newscasts, but also have been able to include material produced, shared or re-framed by them within AJ news flow. This was particularly evident from a content analysis of AJ live blogs coverages of the events\textsuperscript{37}; AJ live blogs are organized as diaries copiously using material produced and shared by other sources also on social networks. It is interesting to note that all the content of AJ live blogs is released under CC license and that the same was true for part of AJ footage on Egypt and Tunisia: also this element might have functioned as enabler for cooperation.

It was thus also cooperating with all these different and overlapping information communities that Tunisian and Egyptian TS have been able to function as bridge leaders of the revolution. It should be noted that within the SM ecology all the members of these communities - even the so called “slacktivists” (people contributing to a cause simply pushing a like button or retweeting a messages)- play in someway a bridge function. This phenomenon that might be defined “networked bridge leadership” it is definitely important in breaking the previously dominating isolation paradigm, however, as showed, it doesn’t completely substitute the functions of a bridge leadership élite.

### 4.2 Communities of practices and their facilitators

Values and practices of the Remix culture have been very important also in the definition of action strategies adopted by Tunisian and Egyptian movements to oust their dictators. Also in this regard in fact TS communities have played an important role, working as a peculiar connective tissue enabling exchanges and appropriations between subjects and groups different for structure, aims, and orientation or simply distant in space.

Linking, (re)frameing, remixing heterogamous practices and making them easily available for everybody, as well as organizing or facilitating self-organization of different groups is easier

\textsuperscript{36} See note N.10
\textsuperscript{37} For Egypt: http://blogs.aljazeera.net/liveblog/Egypt; For Tunisia http://blogs.aljazeera.net/liveblog/tunisia
when you are used to consider cultural products as platforms that can be modified and not as monoliths. In this regard TS, being familiar with the processes of finding solutions on the basis of collaborative practices or of working on solutions already adopted by others in order to create new tools or new functions for the same tool, are definitely in the position for playing a leading role. Moreover it should be noted the fact that within remix culture, developing new communities on the basis of a common project -being it a temporary or long term work- is a frequent practice: it is through collaboration that people previously linked by weak ties (or even by no ties) establish the community. Community building or community enforcing through collaborative work where new solutions are found capitalizing the different experiences and competences of the members is at the base of communities of practice (Wenger 1998), social structures highly facilitated by SM and web 2.0 ecologies (Shirky 2008).

The unhinging of saturation paradigm is another crucial element which makes possible the development of hybrid, reframed and remixed repertories of action. In fact when it becomes easier to reach out and involve in a new project members of an old institution or group without saturate the whole structure, it is also easier for the new born subject to capitalize and remix items taken by the different repertories of action of the old subjects.

Cultural competences of TS in dealing with this kind of collaborative structures, together with their diverse network of relationships (TS come from different social, political, religious backgrounds), enabled them to play a bridging role even during Egyptian and Tunisian revolutions. Also in this regard we should look at global, regional and national levels to find out how TS’s remix culture helped the definition of the “miscellaneous” (Weinberger 2007) repertories adopted by Tunisian and Egyptian movements. Among the elements that helped Tunisian and Egyptian movements in gaining support within western media, public opinions and officials the choice of an almost completely “non-violent” struggle was definitely the most important.

As already said, in 2005 Tunisian TS leaded an initiative against the censorship online, where people were invited to publish on a website pictures of themselves holding a “Yezzifock!” (enough!) banner. During the following years, other similar “creative” initiatives were realized by the same community and were occasion to test the use of tools like Google Groups and Google Docs\(^{38}\) in order to organize actions online and offline while Facebook and Twitter were used to enlarge the base of support for the mobilization. It is interesting to note that,

\(^{38}\)Google Docs is a Google tool allowing users to create and edit documents online while collaborating in real-time.
according to the organizers, involving the artistic community in creatively working on the theme of censorship through the creation of songs, cartoons etc. or the remix of existing ones was considered a crucial point.

The season against online censorship culminated in the organization of “Nhar 3ala 3ammar”\(^{39}\), a rally against online censorship to be held on 22 May 2010 in Tunis: two activists and members of the TS community, Slim Amamou and Yassine Ayari, put their face as “official organizers” and were arrested just a day before the rally. After a “fast and fourios” transnational email exchange, a “plan B”, was quickly organized: a new call was circulated, also via the Facebook page already created for “plan A”, asking supporters to walk around or sit in the cafes in Avenue Burghiba simply wearing white. This experiment that, with dozens of “people in white” getting around in downtown Tunis might be seen as a success, was the first flashmob organized in Tunisia. Similarly in Egypt, on the 6th of April 2009, an unusual demo was organized online, mainly using a Facebook page, asking people to stay at home for a day to show solidarity with textile workers striking and occupying factories in the region of the Delta.

Non-violent tactics, artworks, advertising tools, viral marketing and even irony have been highly employed by social movements both during Tunisian and Egyptian revolutions. Some mainstream media\(^{40}\) hyped the similarities between these practices and those adopted by the Serbian movement Otpor! opposing Milosevic regime in 2000, arguing that Arab revolutionaries have been trained and advised by their senior est-european homologues nowadays turned into “revolutionary coaches” within the framework of the US funded Ngo Canvas\(^{41}\). Although true that both Tunisians and Egyptians have been in touch at some points with Canvas, it is highly reductive describing the definition of these movements strategies as a pure “taking process”: on the contrary it is more appropriate talking of a remix between different practices re-adapted to a peculiar context and goal.

As regarding Canvas and Otpor! two trainings, attended also by Tunisians and Egyptians TS, have been organized for Arab activists in 2007 and 2008 in Amman by the Oic of Nasser

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\(^{39}\) “Day against censorship”.

\(^{40}\) See as example the article "Egyptians and Tunsians collaborated to shake History" by David Kirkpatrick and David Sanger published on Februrary 13th 2001 on The New York Times (http://www.nytimes.com/2011/02/14/world/middleeast/14egypt-tunisia-protests.html?pagewanted=all). While acknowledging the importance of a cross-countries cooperation started well before the uprisings, the article exagerates the “Otpor! Effect”.

\(^{41}\) Canvas (Centre for Applied Nonviolent Action and Strategies), www.canvaspedia.org, is an NGO created in 2002 by former members of the Otpor! Serbian movement. The NGO organizes workshops around the world to train pro-democracy activists in non-violent tactics. Many US foundations and organizations have sponsored Canvas trainings, among them: United States Institute for Peace, Freedom House and the International Republican Institute.
Wedaddy (as said one of the crucial US node of Arab TS transnational community). Moreover some members of the 6th of April Egyptian movement travelled to the USA to attend Canvas trainings and Canvas Manual for non-violent resistance (released under CC lincense) circulated in both countries. However, many other different inputs and practices have been re-framed and re-used by these movements. To offer some examples, during the Arab Blogger meeting 2009 material about different approaches to non-violent resistance was shared; some of the practices adopted during the 2009 Iranian to face the police and basiji attacks circulated online and were known by Tunisian and Egyptian; “no-global” movement know-how were familiar to more politicized members (Alaa Abdel Fattah in Egypt) who have been in touch with European antagonism. But even the professional experiences in marketing, management, human resources and even journalism seem to have been important in the definition of the movements’ praxis, at least in the work of definition of repertoires to be shared with other constituents and groups made by TS communities. It should be also mentioned the fact that the idea of a “tactical use” of the media for counter-hegemonic purposes proposed by Geert Lovink (2002a, 2002b) is highly congruent with values and practices of remix culture and, also for this reason, often familiar at least to the more politicized ones among TS. “Tactical media”, as defined by Lovink, infact has to be understood as a critical use – in many cases through a remix- of mainstream media’s culture (slogans, images, music or even characters) to gain space within mainstream media, frequently virally or even through hoaxes.

From our interviews and conversations, it has emerged that the establishment of ad-hoc Google Groups, conference calls, DM on Twitter and phone calls between transnational network members were occasions to discuss strategies, share feedbacks on tested practices, re-adapt, remix and enlarge repertories of actions. This means that already existing network cooperated to accomplish a task that, not affecting everybody at the same time in the same way, was perceived as a common goal to be achieved through the work of the whole community of practice.

42 The 6th of April is a youth movement originally developed around a Facebook page created to call for strike on 6t April 2008 in support to textile workers mobilization in the Upper Delta region. The creators of the page asked people to stay at home and wear black for a day to show solidarity with workers. In few week the page popularity grew to 60,000 members and the day of the “stay at home” protest a team of bloggers was out in the streets with mobiles and cameras to report on the effect of the mobilization and on regime reactions (Faris 2008). After this first action the movement kept increasing its popularity, mostly among Egyptian youths and some of its leaders (Ahmed Maher, Asma Mahfouz and Esraa Abdel Fattah) were among the organizers of the 25th of January 2011 demonstration which started the “Egyptian Revolution”.

43 Mohamed Adel, one of the coordinators of the 6th of April movement declared he was in Belgrade in Summer 2009 to attend Canvas seminars (Rosenberg 2011).
However, with the crumbling of saturation paradigm, the most important and decisive bridging function played by TS on the side of praxis organization was helping the establishment of “weak” cooperation relationships between individuals and subgroups linked to a wide spectrum of “stronger” organizations within the national system. In this regard the management of information flows about different initiatives, strategies, tools and resources was crucial. According to our interviews and observations, TS networks were already in touch with members of many traditional organizations: because some of them are TS themselves (i.e. among Egyptian Muslim Brothers there are some influential and connected bloggers; some active members of Tunisian General Labor Union (UGTT) have been in close touch with *Nawaat* community) or because of previous cooperation (i.e. the solidarity and the attention given by the Egyptian bloggers to textile workers mobilization from 2010 created many connections).

These connections, mediated by TS through online activities, guaranteed that informations circulated among different players on the streets. Moreover, when constituents of traditional organizations joined the protests before leaderships having endorsed the uprisings -like in the case of young Egyptian Muslim Brothers (MB) joining Tahrir Square from the 24th of January- the existence of an “alternative” system for communication and organization, crossing “strong” ties networks and creating “loosely joined groups” (Weinberger 2002), helped in the coordination of actions and in the establishment of virtuous cooperation where everybody was able to devote to the cause his/her own and the competences of his/her organization. According to protagonists’ narratives, competence in organizing square demonstrations, keep the order in a camp, establish a security service, confront the police - which were experience capital of traditional groups like UGTT and MB or of older generations’ activist- have been fundamental, in particular during the first phase of the uprisings, to make things working. Some of these practices have been socialized, online and offline, with other groups and individuals, becoming part of the repertories of the whole movement. This doesn’t mean that fractures merged and differences disappeared: in Tahrir square different groups occupied precise sectors of the square and, particularly after the fall of Mubarak, tensions emerged even on how to celebrate the event. However the level of connectivity between groups was increased.

5. “Community Managers” of the Revolution

Our research shows that the idea that communities relying on self-organizing tools don’t need organizers or managers is oversimplistic. Even within communities and ecosystems where
leadership functions are highly distributed among constituents, some subjects or sub-groups, because of the time they can dedicate to the common concern, because of their skills using and developing tools or because of their “culture”, become, de facto, “power” constituents or, in other words, leaders.

Considering what emerged from our work we suggest that, in order to define such kind of leadership, a concept taken from web communities vocabulary, “community management” (Sica and Scotti 2007), might be useful. Within on line communities, a community manager is someone who is in charge of the community start up, assisting its development and coordinating its growth. Moreover, he is responsible for taking care that all the efforts made by members in order to self-manage the community are not frustrated.

Adopting this concept we want also to re-emphasize the fact that this article isn’t aimed to suggest a deterministic explanation of the relationship between the web 2.0 and the Arab Spring, neither we are claiming that the whole credit for the success in regimes’ beheading in Tunisia and Egypt goes to TS work. The community management they have been responsible for wasn’t infact the unique action of coordination, on the contrary different actors from cultural, political, religious and non-governmental fields played mobilization functions, in some cases with a deeper grass-root reach. Crucial in this sense was also the function of some mainstream media, with Al Jazeera as powerful enabler of unifying narratives (see Valeriani 2011) at national and regional levels.

However, as showed, the specificity of Egyptian and Tunisian TS in their bridging function was adopting community management as their main task, supported by a common cultural ground in “remixing” values and practices. Being a good “community manager” (Sica and Scotti 2007) infact is not simply a matter of skills, it is also something strictly related to competence and expertise withing a peculiar milieu. When connection on line become the easiest and cheapest gateway to coordinate information and organize action, the “experts of the net” acquire necessarily a new social function. But, as showed, this function, being related also to a peculiar culture, the remix culture, might overstep the net and become crucial even in coordinating offline activity.

Introducing the concept of “community management” is useful to understand the different outcome of the Tunisian and Egyptian TS work compared to other scenarios of the Arab Spring. Infact, although it is impossible to ignore that Tunisia and Egypt TS communities were -and are- among the more active and connected (internally and externally), it should be pointed out that also in other Arab countries currently on turmoil TS communities are present, having transnational connections and trying to play bridging functions. However, as
stressed also by Bunce (2011), the situation of Egypt and Tunisia, as well as the strength of the different opposition forces, was similar and, albeit segmented, less “balkanized” compared to other countries of the region where, as in the cases of Syria and Bahrein, sectarian divisions are stronger and deeply affecting social and political life (Owen 2004). This observation is important to understand that not only the technological infrastructure, but even the work of the “managers” alone doesn’t make the difference: the composition of the community, and the social, political and economical context is still relevant.

As predictable in fact, political divisions emerging within the national political space after the revolutions both in Tunisia and Egypt, are making more complex for TS playing the same bridging function they played during the “Spring”. Albeit, as proved by Alaa Abdel Fattah with his idea of the Tweetnadwa meetings, TS and remix culture are still at work in this sense. Tweetnadwa are open debates, organized in public places, tackling sensitive issues related to the future of Egypt and adopting some of the “tweets-phera” rules: the speakers and all the participants are only allowed to 140 seconds response to each question (recalling the 140 characters of Twitter updates) and instead of clapping for speakers, participants wave their hands to simulate the act of “retweeting”.

**Tables:**

**Tab. 1**

<table>
<thead>
<tr>
<th>Name</th>
<th>Web expertise</th>
<th>Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaa Abdel Fattah (expat.)</td>
<td>New media trainer, Open Software Developer, Blogger, Manalaa co-admin</td>
<td>Manalaa.org, Arab Techies, Arab Blogger Meetings, Foss National and Regional Events</td>
</tr>
<tr>
<td>Manal Hassan (expat.)</td>
<td>Open Software Developer, Blogger, Manalaa co-admin</td>
<td>Manalaa.org, Arab Techies, Women Techies meetings, Arab Blogger Meetings, Foss National and Regional Events</td>
</tr>
<tr>
<td>Ahmed Gharbeia</td>
<td>Online security expert, ICT consultant, online community manager, blogger</td>
<td>Creative Commons, Arab Techies, Arab Blogger Meetings, Foss National and Regional Events, Global Voices online</td>
</tr>
<tr>
<td>Rami Raoof</td>
<td>Digital security, Online media consultant, blogger</td>
<td>Creative Commons, Arab Techies, Global Voices online</td>
</tr>
<tr>
<td>Mona Sosh</td>
<td>Photo Blogger</td>
<td>Arab Techies</td>
</tr>
<tr>
<td>Nora Younis</td>
<td>“Power Blogger”, web journalist</td>
<td>Arab Techies</td>
</tr>
<tr>
<td>Wael Abbass</td>
<td>“Power Blogger”</td>
<td>Arab Blogger Meetings</td>
</tr>
<tr>
<td>Wael Ghonim (expat.)</td>
<td>Marketing regional Manager Goolge, Admin “We Are All Khaled Said” Facebook page</td>
<td>“We are all Khaled Said” Movement</td>
</tr>
<tr>
<td>Ahmad Mekkawy</td>
<td>Open Software Developer</td>
<td>Foss National and Regional Events, Linux Community</td>
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### Tab. 2

**Tunisia (selected examples)**

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<th>Name</th>
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<th>Communities</th>
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<tr>
<td>Sami Ben Gharbeia (expat.)</td>
<td>Advocacy Director at Global Voices online, nawaat.org co-admin, blogger, cyber security expert</td>
<td>Creative Commons, Arab Techies, Arab Blogger Meetings, Global Voices online, Nawaat.org, ATPD</td>
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<tr>
<td>Malek El Khadraui (expat.)</td>
<td>nawaat.org co-admin</td>
<td>Creative Commons, nawaat.org, Arab Blogger Meetings</td>
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<tr>
<td>Riad Guerfali</td>
<td>Lawyer expert in cyber law, blogger, nawaat.org co-admin</td>
<td>Creative Commons, nawaat.org, Arab Blogger Meetings</td>
</tr>
<tr>
<td>Lina Ben Mhenni</td>
<td>Blogger, teaching assistant in Linguistics</td>
<td>Nawaat.org, arab blogger meetings, Global voices online</td>
</tr>
<tr>
<td>Howeida Anouar</td>
<td>Social media strategist, websites admin, blogger, photographer</td>
<td>Arab Techies, Women Techies meetings, nawaat.org, ATPD</td>
</tr>
<tr>
<td>Slim Amamou</td>
<td>Open Software developer, Pirate Party Member, ICT start up founder</td>
<td>Arab Techies, Arab Blogger Meetings, Foss National and Regional Events, Hackers’ community, Pirate Party, TEDxCarthage</td>
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<tr>
<td>Yassine Ayari</td>
<td>Cyber security expert, manager ICT company, blogger, open software developer</td>
<td>Foss National and Regional Events, Hackers’ community, Pirate Party</td>
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<tr>
<td>Houssem Aoudi</td>
<td>Digital strategist, Digital Marketing expert, TEDxCarthage organizer</td>
<td>Creative Commons, TEDxCarthage,</td>
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### Tab. 3

**Regional and Global outreach (selected examples)**

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<th>Name</th>
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<th>Expertise</th>
<th>Community</th>
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<tr>
<td>Amira Al Husseini</td>
<td>Bahrain</td>
<td>Blogger</td>
<td>Global Voices on Line</td>
</tr>
<tr>
<td>Habib Haddad</td>
<td>Lebanon</td>
<td>ICT entrepreneur, ICT Ngo</td>
<td>Creative Commons, Meedan</td>
</tr>
<tr>
<td>Anas Tawileh</td>
<td>Syria</td>
<td>Consultant in ICT development, Open Source Developer,</td>
<td>Creative Commons, Meedan</td>
</tr>
<tr>
<td>Nasser Wedaddy</td>
<td>Mauritania/USA</td>
<td>Blogger, Ngo, Lobbist</td>
<td>Arab Blogger Meetings</td>
</tr>
<tr>
<td>Jacob Appelbaum</td>
<td>USA</td>
<td>Cyber Security expert, hacker, former Wikileaks security expert</td>
<td>Arab Blogger Meetings, Hackers community, Tor Project</td>
</tr>
</tbody>
</table>

### References:


presented at Princeton University, April 21, 2011.


Blackwell.


