

MOBILE SERVICES AS AN AUXILIARY TOOL FOR JOB RECRUITMENT

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ABSTRACT

Establishing business contact between job candidates and a company that needs employees is a demanding task for both parties. Candidates have to research vacancies and companies must engage resources to find the right people, perform the selection and establish communication with them. In cases when a company needs one or a few new employees, this task is relatively simple. However, when a significant number of people are needed, the problems are greatly increased. In cases of hiring seasonal workers where many candidates are supposed to be selected, this issue is especially pronounced. Using the Internet to send job invitations to a large number of candidates is not effective as these applicants are usually people with a lower level of education who are not used to Internet communication.

Mobile phones are an ideal way of communicating with candidates for such positions. Everyone knows how to send and receive SMS messages while more advanced users know how to browse the Internet, making this an ideal technology for communication between interested parties.

The paper analyzes technologies and models of establishing communication between a job candidate and a company that needs workers.

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INTRODUCTION

Linking job candidates and companies in need of employees for communication can be established in several ways. A company can independently organize the advertising through daily newspapers, mass media (radio and television), post a vacancy on its website or advertise on a billboard. All these ways of establishing contact have their shortcomings as this communication goes one way and the basic shortcoming is the impossibility to get a quick response from candidates. If the job vacancy is advertised via the Internet and employees with a lower level of education are sought, the probability of anyone responding to the advertisement is low. The only technology in mass use which is available to everyone are mobile phones. The probability for a large number of candidates to see an advertisement posted via mobile devices is significantly increased, especially since it can be posted on several communication channels, which will attract the attention of interested parties to contact the company. M-recruitment or M-employment using mobile services can be observed as a communication channel via which advertising job vacancies using mobile devices is possible [1].

Mobile devices are used as communication intermediaries for interacting with a candidate, his receiving information on the jobs offered and further on during the selection for informing candidates on the results or inviting him/her for job interviews. Research conducted has shown that candidates born after the year 2000 use their phones 157 times a day [2] and 90% of them believe that they will find a job that way.

What makes a mobile phone convenient for hiring processes is that it is a personal mobile device, it belongs to one user and is always within reach. Handling this device is simple and users know how to use it [3]. Sending and receiving SMS messages is something every user knows how to do. The location availability is large and it is not necessary for a user to specially connect in order for communication to be established.

From the company's point of view, this is technology which enables a call to be sent to a large number of potential candidates in every moment and to receive a response in the sense that certain candidates accept or reject the job within a relatively short period of time. Geolocational positioning of candidates is possible through a combination of several techniques. Candidates already registered in the database can be selected according to places of residence or some other criteria.

Mobile devices enable the easy and simple delivery of personalized information to candidates no matter where they are located at that moment. This technology enables the following benefits:

- The value of the information is significantly increased when it is delivered to the right address to the location where action should be taken.
- The personalization value of the information is increased when it is formatted according to the criteria of the recipients and when the recipient can use it efficiently.
- The temporal value of the information is increased when it is delivered at the right time when action should be taken.

RECRUITING POTENTIAL CANDIDATES

Mobile recruiting could be defined as the use of mobile devices to obtain information on job vacancies or to forward some information/data related to job vacancies, i.e., in order to attract candidates for a certain job [4]. The very term mobile device is hard to define nowadays. In mobile communications, phones, tablets, laptops, watches and other devices capable of establishing wireless communication can all be considered devices. It depends on the type of device what technology will be applied in communication.

Recruiting potential candidates for a job implies that they applied, that they want to work, that they are registered on a database with all their qualifications and previous work experience. Depending on the business needs, companies hire new employees, and when they face problems, they have to let employees go. Workers who are let go during a certain period (or seasonal workers) are significant capital for a company, and when the situation changes or the time comes for conducting seasonal work, it is harder to bring them back and hire them, since significant training resources were invested in them [5]. The simplest method is the re-establishment of contacts with former workers through mobile devices (phones). If a smaller number of employees is needed, it is not a problem for them to be called directly by phone, but if a large number of employees is needed, then individual calls are more difficult. Another problem with the mass calling of workers is that they have to confirm that they accepted the offer sent to them. Sending an SMS or email message with a request to reply to the demand within a certain timeframe gives quick results as to how many candidates accepted the offer.

In order to access a company's website using a mobile device, it is necessary for it to be adapted to working with them. Companies which want to recruit staff this way have to first of all check how their website opens on mobile devices. This means that web pages are opened correctly, adapted to undisturbed online searching using a mobile device. If a user finds the appropriate job, can he/she register on the website using a mobile device and apply for said job. These are all issues which the company has to solve before starting these tasks.

TECHNOLOGIES APPLIED IN M-RECRUITMENT

The mobile phone is the most commonly used device by users. This fact is used for connecting companies seeking candidates for a job, thus employment agencies and state authorities involved in employment have developed a whole range of applications for mobile phones via which they communicate with candidates seeking work. Examples include: Indeed, Job Search, Work From Anywhere, Bluecrew... Candidates are expected to download the application from Google Play (Apple App) and install it on their mobile phone [6].

This means that the website has to be optimized to recognize the type of mobile device used to access the site in order to adapt the appearance of the screen to the appropriate device. For advertising job vacancies, the following capabilities provided by mobile devices can be used [7]:

- Mobile applications
- Website
- SMS
- MMS
- Bluetooth
- Location Based Services
- QR (Quick Response) Codes
- NFC
- Video interviews on mobile devices

M-recruitment can be observed as an application via which it is possible to promote job vacancies through a mobile website, SMS and MMS services, NFC technologies or an application which can be downloaded. Companies which need job candidates use candidates' mobile devices as a starting point for interacting and establishing business contact as well as for introducing them to the launched call and the company [8]. Contact established this way is further expanded and if the candidate gives a positive response, further contact is achieved through other communication channels or the candidate coming to the company in person. Companies can combine these services based on various communication channels and establish business relationships both with individuals and with employment agencies or outsourcing partners [9].

The fact that the mobile device is a personal device which normally belongs to just one user makes it a communication channel which can precisely reach the target group, which as a consequence gives excellent results to job candidate recruitment campaigns realized this way. This is how it is possible to conduct candidate pre-selection. By forwarding information to a larger number of candidates based on their responses to how interested they are in a job, their pre-selection may be conducted based on qualifications and abilities.

It is necessary to create interest among candidates not previously registered in the database of the company or recruitment agency to apply or download the application to their mobile device. In order for the candidates to become interested in registering, it is necessary for them to find out that such a possibility exists. Billboards, info kiosks and similar devices can significantly contribute to this. A billboard with an advertisement for a job vacancy with a link to the website for applying or with a QR code gives excellent results. A saved photograph with the QR code of the job in which a candidate is interested gives the company instant information on who to establish contact with and in which post he/she is interested. An additional possibility which may be used is the information on the user's location, since he/she recorded the billboard which is situated at a certain location with his/her phone and at the same time this is his/her location. The company receives this message and based on the QR code on the picture, it registers where the message was sent and forms a response as to where the candidate should further apply or where he/she should show up in order for the procedure to continue based on the message.

M-recruitment can be organized in two basic ways of forwarding information: push or pull message forwarding. Push forwarding means sending information to a user's mobile device. This concept of work is possible only for those candidate categories previously registered in the database or who applied for the job and are waiting for a chance to be called. This method is recommended for all seasonal and occasional jobs [10]. Recruiting based on this model means that when a company needs seasonal workers, it simply lists from the database the group of candidates and automatically, using SMS technology, directly generates messages via a “gateway” (software enabling SMS messages to be sent directly to users from a database) forwards the message to all who fit the job requirements. Candidates who receive an SMS message with an inquiry as to whether they are interested in the work are obliged to immediately (or within the provided timeframe) respond to the inquiry. The response is also sent via an SMS message which is automatically received via an SMS “gateway” and automatically registered in the database. All candidates selected for the job receive as a response an MMS message with a generated QR code with data needed for applying when they appear at a certain location. Other candidates who did not pass the selection receive an SMS that they were not chosen.

Pull registering has to be organized for candidates not registered in the database. Considering that forwarding messages to users of mobile devices which they did not seek or did not register for is not permitted, companies are forced to deliver their advertisement messages to unknown users by setting up billboards at public places, publishing in newspapers or advertisement brochures the phone number which the candidate should contact or an Internet address via which the candidate can establish contact. It is usual for the application to be conducted automatically by sending an SMS or MMS (the photograph of the billboard or magazine with the QR code) message and that way set up the legal framework for further communication between the candidate and the company [11]. A user interested in getting the job is in this way directed to the web presentation or another communication channel in order to additionally identify himself/herself.

Two problems need to be considered during this kind of recruitment. The first is that all users are not familiarized in detail with handling mobile devices. When seasonal workers with lower-level qualifications are sought, one has to start with the assumption and take into consideration that their knowledge of working with mobile phones is insufficient and it is unlikely to expect them to have the software for communicating with employers to be installed. The other problem is related to the mobile devices themselves. In order to use the advantages of these mobile technologies, it should primarily be analyzed with which devices the average user disposes and what are the skills necessary to completely make use of the technological possibilities. When m-recruitment is analyzed, one has to start with the fact that a small number of users use their devices well and have a „smart“ phone. The most commonly used phones are standard ones with limited capabilities and usually, apart from establishing communication, can send and receive SMS and MMS messages. Starting with this assumption, it is simplest to apply this technology since everyone who has a mobile device knows how to send and receive an SMS message.

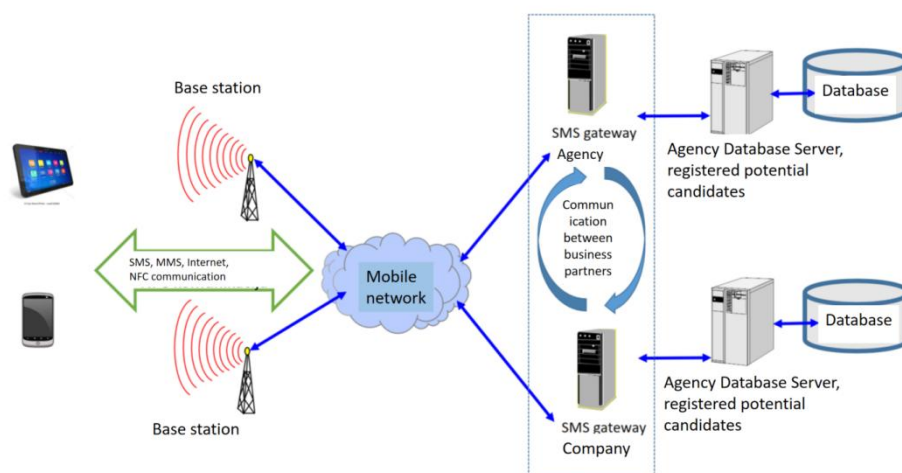


Figure 1. Model of business connection between candidates with employers

Figure 1 shows a model of business connection of a candidate with companies or agencies for the recruitment of job candidates. The model enables the establishment of communication between all interested parties in this business relationship. The company can independently forward candidates the notification on job vacancies but in case there are not enough applicants, it has the direct possibility to use the recruitment agency's database in order to expand the pool of candidates called for the job. This model is suitable for seasonal work where a massive workforce not required to go through special selection procedures is sought. At the location where the work is conducted, it is sufficient for the candidate to place his/her phone (so that the identification code or QR code appears on the screen) near the device for recognizing the code and to automatically register their arrival [12]. This method also enables inviting seasonal workers not situated in the local environment and those expected to travel to the job location. In cases when an insufficient number of candidates applies for the job, an automated procedure of repeated sending of messages to new candidates is possible. This automated procedure is simple to implement and does not require the long-term training of new candidates to handle.

What is especially convenient with this model of communication is that the engagement of candidates is permanently followed, their presence at work is registered and based on this data from the database, it is possible to select workers who are reliable or can be promoted.

Mobile devices are especially convenient for recruiting a large number of candidates when it comes to construction and agricultural work and similar since it is often conducted far from inhabited places where it is not possible to get a sufficient number of candidates [13]. In that case, agents with mobile devices must tour the region and recruit workers. In these cases, mobile devices enable communication and a technique for candidates to apply.

DISCUSSION

The rapid development of the Internet and mobile communication has completely changed communication methods between individuals, but also all other types of business communication. When the ways employees are recruited are analyzed, in the classic way of work, this implies a large number of advertisements in daily magazines, paper advertisement materials which rarely reach those interested and waste the resources and the time of the employees in a company tasked with finding candidates. From the point of view of the job candidates, significant engagement to research various materials, tour the companies and agencies, read the advertisement materials published in various magazines, write CVs and other accompanying materials as well as mandatory contact with the person tasked with telephone communication or coming to the interview in person is needed [14]. It takes a significant amount of time for written materials sent to a company seeking job candidates to be delivered, as well as waiting for a response, which is time lost for both companies and candidates.

Mobile devices and the Internet have completely changed the way candidates are found and selected for a job. The time needed to launch a call for a job vacancy and conduct the selection is significantly shorter, a larger number of candidates can be informed via new communication media, their job requirements can be processed and the selection can be conducted [7]. What is important is significantly faster communication, at smaller costs. The Internet and mobile services enable the reduction of the number of those coming in for an interview, the speeding up of communication and informing of all interested parties, and it is also possible to conduct candidate pre-selection and to inform them quickly. The use of mobile devices enables job candidates to be informed on time, unnecessary calls are avoided as well as misunderstandings that occur in communication and in the end, candidates quickly receive information on the selection results.

Mobile devices are most often used for communicating within social networks. Social networks have become a global phenomenon in the past twenty or so years. Communication connections of individuals via these networks are an excellent source of data for companies seeking job candidates [15]. Asking personal questions enables companies to find the appropriate staff for the needs of filling out their posts. From the point of view of the employer, social networks are useful when looking for candidates but on the other hand, they are a problem since candidates already employed at these companies are more visible to other companies which can give better offers to successful employees.

Communication via mobile devices between companies seeking new workers and candidates looking for a job in the coming period has yet to be improved. On the website <https://play.google.com/store/apps/>, applications for mobile devices intended for establishing communication between job candidates and companies can be found. It is to be expected for more of these applications to appear and for them to be of a far better quality than those already in use.

CONCLUSION

Changes caused by the influence of modern communication technologies have significantly changed staff recruitment models on the part of companies. The mobile phone has become a basic means of communication between individuals. Since it is a personalized device always available for business communication, it is an ideal channel for establishing contact between employers and potential job candidates. Technologies implemented in mobile devices enable contacts between business partners to be conducted quickly with the possibility of direct contact via in-person interviews with candidates while newer technologies enable video calls as well. Depending on the candidate's level of education, the appropriate technological solutions are applied. Mobile applications are the future in the employment business, but their handling by less educated candidates is problematic.

When informing candidates on job vacancies which are of a seasonal character, SMS and MMS technologies are most often used since they are the simplest to work with. The advantage of mobile communication is that it enables geolocational calling of candidates by directly sending messages from a database, due to which unnecessary trips to the location where the candidate will work are avoided.

Mobile devices are massively used for communication via social networks, which are an exceptional source of information and advertisements of job vacancies. Social networks can be used both as external as well as internal (Corporate Social Network, CSN). This means that public social networks (Facebook, Twitter) can be used for following and analyzing potential candidates, but there is also a possibility to install local company software and use it to communicate within a company. Online social networking within companies enables new forms of cooperation to be formed between employees, and the sharing of knowledge and documents among them. Next to the communication advantages, online and mobile networking offers companies the possibilities of monitoring, measuring and analyzing the interactions between employees.

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