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PREFACE - RESPONSIBLE DEVELOPMENT OF SYSTEMS

The system thinking stresses interactivity, interdependence and emergent character of reality. It combines many elements together in an organised way to produce a meaningful whole. There are many types of systems. We can think of a mechanical system like a clock, where parts fit together to produce an external goal. Another example may be the organic system which has an internal aim, is open and can accommodate to its environment. Man is also a system which can set its own goals and organize instruments to achieve them. An information system collects, processes and distributes information in such a way that the system can adapt to its environment, but still remains a whole, i.e. follows a certain pattern of behaviour. The information system deals with different varieties of its elements and the environment. Society is a system, too, which transcends its elements on the one hand, but is influenced by them on the other hand. For many systems the feedback loop is very important as it allows for learning.

Current reality is composed of many interrelated parts. From that it follows reality is very complex, unstable and behaving in not repeating patterns. Its elements are very often people whose actions are only poorly predictable. Solving problems in such a reality may favour soft system methodologies, but their hope in reaching a consensus must not be overestimated.

As reality is so complex the system approach respecting the holistic and pluralistic nature of reality seems to be promising. However, it is not clear what type of system thinking should be used and there is also a doubt that man will be able to understand the complex nature of reality as its complexity may transcend his understanding. The popularity of simple populist solutions may support such a claim.

Current problems with modern technologies comprise non-transparency of their functioning, substitution of amusement to responsibility, distraction of attention from current problems to a virtual environment, loss of privacy etc.

TELEWORKING AND TOURISM

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ABSTRACT

Teleworking brings many advantages to employees and employers, but it also brings new demands for both sides. This work arrangement also involves some disadvantages. Most of these disadvantages may be partially eliminated by following the recommended processes. Nevertheless, some negative aspects still need to be expected. Teleworking may have advantages and disadvantages for the entire society, which may not be the same as individual or company interests. This work arrangement has become more and more common also in tourism. It is mainly used by field workers.

KEYWORDS

Teleworking, tourism, combination of office and home, telecottages, homeworking, mobile teleworking

INTRODUCTION

Teleworking or remote work is a new means of work arrangement, which is becoming more and more relevant lately. The key element of this activity is reduced need to commute to the company workplace and to perform one's job during fixed working hours. Teleworking allows for individual optimization of work according to one's needs with regards to time and place.

In today's world there have been major changes in the area of top technologies. After WW2 the economic growth was based on qualified industrial production; nevertheless, its importance is has declined since the beginning of the seventies of the past century in contrast with the new wave of modern communication and information technologies. The improvement of computers and software programmes, modern communication tools including the Internet, company and government information systems, new ways of processing statistical and scientific data and also industrial automation established the basis for creation of information technologies.

The use of information technologies is currently the main source of wealth of developed countries and powers their national economies. It is necessary to quickly adapt to new conditions, which require good environment but also the presence of highly qualified

workforce. This is also connected with reduction of pressure on the work and natural environment by moving part of the activities into the digital world. The use of teleworking may be one of the possibilities to achieve this goal. Visions regarding the use of teleworking are often very optimistic and there are great expectations especially in relation to reduction of negative lifestyle phenomena including demographic issues. These are for example reduction of collapsing traffic especially in city centres and around big cities, reduction of demands for construction and extension of road network, reduction of car emissions but also construction of additional administration buildings in the cities.

Teleworking is also closely connected to other modern telecommunication technologies, which have helped its successful implementation. The current intense development of telecommunications sets the ground for increasingly simpler and better possibilities to communicate with the world from home using various means – from phone connection to videoconferences. Increasing speed in data transfer and improved connections to banking sector and to government administration are equally important.

Therefore, we may expect teleworking to bring a positive impact to the entire society. If people were not forced to commute to work, life could paradoxically return to its form prior to the industrial revolution when people spent most of their time in close proximity to their homes.

The area of teleworking (working from home) is a topic, which is currently being discussed by the entire developed world including the EU countries.

TELEWORKING TERM DEFINITION

For real teleworking is it important that the following conditions are met:

1. Work using a computer.
2. The employee is at another location than his employer or his client.
3. The communication takes place remotely via telecommunication networks.

Teleworking = telecommuting – two interchangeable English terms, which have quickly become known by employees in various business sectors as well as in services. The new way of work arrangement – remote work (teleworking) or virtual commuting (telecommuting) – has not been assigned any simple or one-word term in the Czech language. It is based on reduced need to commute to the company workplace and to work during fixed hours or days of the week. Instead of a fixed time and place regime, teleworking enables individual optimization of work according to one's preferences with regards to time and place (home mostly becomes workplace).

The reduction of physical presence at the workplace may be partial or almost 100% according to the type of employer and performed work. Sometimes commuting may be reduced for example to one day per month when the employee (teleworker or telecommuter) participates in regular company meetings even though this option will definitely be less frequent than ratio of working from home to working from the workplace of 3:2.

CHARACTERISTICS OF PROFESSIONS FOR WORK IN REMOTE

Criteria applicable to teleworking according to Olsen: [1]

- Definable goals
- Degree of concentration
- Communication level
- Cost of equipment
- Time unit determination
- Measurable output

Definable goals

For successful teleworking it is very important to define specific goals. The employee who works from home must be well informed about his employer's expectations.

Degree of concentration

Activities ideal for teleworking are those which require higher level of concentration (translation, audit, accounting, etc.).

Communication level

Thanks to high level of the used technical equipment, the communication level may be expected to be relatively high, however, it may obviously not replace natural human communication.

Cost of equipment

Teleworking requires average equipment costs. The employers need to invest more into information technologies, but they may save on some additional costs.

Time unit determination

Time unit determination is one of the key conditions for remote management. For this type of work, it is better to choose longer time units than for standard management. The traditional management theory divides total work into small tasks regularly checked by the manager. This approach is not possible in case of teleworking.

Measurable output

The possibility to measure input and output is an essential requirement for successful management of a working team in remote. The manager should give his subordinates work tasks in such a way that the required result (output) is clear.

The conditions for teleworking may change in accordance to the profession of the employees. Manufacturing provides less opportunities for teleworking and it may be said that with few exceptions it practically does not allow for this working style.

ADVANTAGES AND DISADVANTAGES OF TELEWORKING

Advantages and disadvantages for employers

Employing teleworkers is a very promising way for employers; its main advantages are:

1. improved productivity
2. fixed costs reduction
3. covering unusual labour market segments

1. Improved productivity

According to Qvortrup [2] teleworking may improve work productivity. For improved productivity these factors are important:

- a) Time, which would have been used for transport will be used for work.
- b) By working from home, time is saved when the employee would normally not work, e.g. various idle times.
- c) In some cases, a situation similar to Hawthorn effect described in academic literature may occur [3]. Even though employees are less supervised, their work morale improves. Even when teleworkers are not paid according to results but in the traditional way, they have a better overview of their performed job than standard employees.

2. Fixed costs reduction

The traditional reasons for employers to use teleworkers (especially homeworking) is the possibility to reduce fixed costs, e.g. heating, lighting, and compensation for transport (in many international companies employees receive compensation for their transportation costs). Therefore, the current trend is to enable working from home for the employees and the company pays for some of their costs. In most cases the companies will save on financial resources. [4] Such cost reduction when moving to teleworking is obviously not a rule, nevertheless, in most cases there is some reduction in fixed costs. (see Appendix no.2)

Many companies need to locate their main office in a prestigious area but they do not have the financial resources to move the entire company; therefore, it is possible to form a smaller backup office in such area and have part of the employees as teleworkers. In this case it is possible to motivate the teleworkers who will work from home as well as the employees who will stay in the backup office.

The teleworkers save time and transportation costs to get to the workplace as well as other costs. The mobile employees may be motivated by the fact that they are very important to the company and they may consider the technical means for this communication as a certain attribute of their position in the company.

The employees who will stay in the office may benefit from the possible moving as they will have a chance to work in a more attractive environment than before.

3. Covering unusual labour market segments

Especially during economic downturn employers find it hard to find employees from some unusual professions. The use of teleworking provides a more flexible solution to such issues. In a similar way, it is also possible to employ for example the physically disabled who are not able to commute to work. [5]

The main disadvantages of teleworking for the companies are particularly:

1. lack of impact of company goals and culture
2. issues with communication and supervision

1. Lack of impact of company goals and culture

A teleworker finds it harder to identify with the company culture because he is not in daily contact with his colleagues. Such employee is not only less influenced by the company culture, but he does not have the possibility to actively participate in its creation. Teleworking has potential aspects of lower employee loyalty. Teleworkers do not have many opportunities to create a company culture. [6]

Company culture is formed by both formal and informal relations in the workplace. Advanced technologies may to a certain extent mediate the formal relations, but they can only hardly mediate the informal ones. This issue will be more obvious in case of new employees who had

not worked for the company under a standard work arrangement or in case of those who do not have experience with other working style than teleworking. Socialization of such employees should be under the scope of their direct manager, the human resources department or (in case of big companies) an employee who is specifically in charge of such matters.

2. Issues with communication and supervision

In case of teleworkers employer may face serious issues in the area of communication and supervision. The employees may communicate using phone, e-mail or computer network, nevertheless, such communication, even though it is already very developed, may not replace natural human interaction.

One of the main problems of teleworking management and of management in general is supervision. Flexible working hours, which are typical for employees in tourism and the fact that it is not performed in one place make supervision harder for the managers. In case it is possible to report an exact amount of performed work like in case of task based jobs, the supervision will focus on specific results and, thus, it has a solid base. In all other cases where workload may not be quantified supervision is much more demanding. It is very difficult to check such things as time spent at work, workplace behaviour and other often very subjective criteria. This is why starting with teleworking in a given company often requires a complete makeover of management and supervision systems. With this work arrangement only results may be checked. The basic check process has three phases:

1. defining standards
2. comparing performed work with these standards
3. correction of outliers and reward conclusions [7]

Remote supervision style should be based on three criteria:

- type of work
- position and knowledge of the teleworker
- company culture and tradition

ADVANTAGES AND DISADVANTAGES FOR EMPLOYEES

The main advantages of teleworking for the employees are:

1. time and space independence
2. bridging sickness or maternity leave
3. cost savings

1. Time and space independence

When it comes to time and space independence, the main advantages were noted in case of managing and technical employees. The most popular area of teleworking for the employees is the combination of work from home and from the office where the employees have technical equipment at home that allows them to work remotely but they may also work from the office. This option is very advantageous for the employees because they may choose their work location and social interaction intensity for a given day themselves. Another advantage for the employees, in case they finish work on time, is that they may plan their working hours.

2. Bridging sickness or maternity leave

Teleworking is particularly advantageous for women on maternity leave. In this period women

in most cases interrupt their work for a long period to take care of their child. During maternity leave they lose touch with their workplace, which increases their difficulties to return, notwithstanding that their financial situation becomes worse to some degree. This period worries not only women but also some employers who lose for a long time a trained staff member and there is a problem of how to find a replacement who would be willing to replace her for a determined period. This approach is possible especially in case of highly qualified staff where it is worth for the employer to invest in the equipment needed for teleworking.

Similar advantages as in case of maternity leave may arise in case of sick leave. Under certain circumstances the employee may work during sickness; however, the work must not affect his health condition and, therefore, this option must be consulted with a doctor. The employee must be suitably motivated for such option. The most frequent motivation for such work will be the difference between the employee's salary and the sickness benefits.

For successful teleworking it is mainly important to:

- be able to divide the time for work and free time; be able to focus on both
- ensure that other household members respect the working hours, which may be made more difficult in case of tourism due to time difference.
- have good family relations

3. Cost savings

Teleworkers may save on some costs from the family budget if needed, especially on transportation to the workplace (this amount may not seem large at the first sight, but in case of long term work it may become important). If the teleworker moves to an area with lower costs of living, he may save also in this respect.

However, working from home brings employees certain disadvantages:

1. Lower income
2. Conflict between work and private life
3. Social isolation
4. Health problems

1. Lower income

Teleworkers are often less paid than their colleagues who work in a standard way. Especially women, who work at home have much lower income. Teleworkers may be divided into three groups according to their income:

- A) Very well paid staff, mostly men with high education and most frequently combine working from home and from the office. These are mainly managers.
- B) This group has well paid staff. They also have good education and work as programmers, travel agency representatives and guides.
- C) Mainly women who are paid less, they have elementary or secondary education and perform assistant office jobs.

2. Conflict between work and private life

Working from home may cause conflict between work activity and family life or deepen an already existing conflict. In the past people worked at home more and work at home was more tightly linked to family life. In the past century most workers - men - started leaving for work outside their homes. In case of teleworking these employees would stay at home and all-day contact with their family could cause higher level of conflict than in the cases when time spent with members of the common household is relatively rare.

Another example of such conflict might be the position of a women in the household where she takes care of her children while teleworking. For this woman it might be very difficult to divide

her time and focus between teleworking, house work and raising her children. In the same way as good relations with colleagues are important for employees, in case of working from home understanding from the household members is important.

3. Social isolation

The main disadvantage of teleworking is social isolation, which is not resolved even by various work meetings. Isolation is mainly connected with the so-called homeworking where the employee works mainly at home and does not visit his clients or his employers. To reduce the feeling of isolation, employers of teleworkers should mainly follow these rules:

- not forcing teleworking onto employees
- using the combination of working from home and at the office or mobile work
- using teleworking only for certain part of the working hours
- enabling the employee an access to the employer's e-mails
- setting up a network for employee information
- ensuring that teleworkers are trained to manage their own workload

4. Health problems

This type of employees suffer from health problems typical for sedentary work such as eye issues, back and wrist pain caused by computer work. The employer should monitor his employees and try to help them by e.g. training, health checks or make it possible for them to compensate their sedentary work in their free time. [8]

SOCIETY-WIDE ADVANTAGES AND DISADVANTAGES

Teleworking may have its society-wide advantages and disadvantages, which may not be the same as individual or company interests.

Teleworking advantages for the society:

1. Enabling people full work participation
2. Less impact on roads and large city centres
3. Keeping qualified employees outside large cities

1. Enabling people to full work participation

Teleworking will enable work for more people who would not have been able to participate in the labour market otherwise. These are mainly physically handicapped people, those who take care of a sick person, women on maternity leave or rarely also prisoners serving their sentence. The society should find suitable means to motivate these groups for this type of work.

2. Less impact on roads and large city centres

The possibility to work from home will partially resolve the problem of overload in the urban and suburban traffic. This brings a lot of additional advantages such as less road accidents, improved environment, monument protection, etc. In case of large cities, this could lead to establishment of more pedestrian zones and "calmer" atmosphere of some city zones and streets such as for example Manhattan in New York or Ginza in Tokyo, which is positive for tourism in the given area.

3. Keeping qualified employees outside large cities

Some professions do not find employment outside cities and their employees are forced to move to cities. The use of teleworking would allow them to work from their home. This would partially prevent migration of mainly young and qualified people from villages to cities.

DISADVANTAGES OF TELEWORKING:

1. Increased number of employees (supply) in the labour market
2. Depopulation of large city centres

1. Increased number of employees (supply) in the labour market

If more employees joined the labour market at the same time, unemployment would rise together with all the consequences for the entire society (e.g. higher impact on the government budget, social and health issues)

2. Depopulation of large city centres

Increased demand for teleworking could cause outflow of people from the city centres where there are mainly administrative buildings and few residential houses. In the worst case centres may be completely depopulated and they could become “dead” cities.

Examples of professions suitable for teleworking in tourism:

- Professional and management specialists: marketing, public relations, human resources
- Supporting professions: accountants, translators
- Field workers: sales representatives, controllers, inspectors, guides and travel agency representatives
- IT specialists, system analysts, programmers
- Assistant office jobs: typists, telesales assistants

Professions, which are less suitable for teleworking have the following characteristics according to Aichholzer [9]:

- Increased need for social contact
- Need for client interaction
- Need for “creative element”
- Extreme risk level (e.g. medical interventions in case of medical tourism)

Types of teleworking organization

Classic teleworking categories

Teleworking may be divided into several groups in terms its organization:

- combination of office and home
- Satellite office
- local centres (telecentres), “telecottages”
- homeworking (work from home)
- mobile teleworking

Combination of office and home

This combination requires computer equipment both at home and at the office. It is a relatively costly solution because the costs of IT equipment are double in case of these employees. The advantage is permanent access to the company database and possibility to work from home. This combination allows for more flexible use of working hours and gives the employee some freedom. This working style is not exclusive to a narrow circle of managers. Even though it is

still perceived as an attribute of a manager; in some cases it may be used as a motivation factor. One option of the mentioned combination of office and home is a method called hot-desking. Thanks to teleworking, the employer may save on working stations because employees work in turns from the office and from home. Each member of a working team has a little container with his things in the office, which he brings to his working station once he arrives at the office and then puts back once he finishes. The working stations at the office may not be the same for individual employees who arrive at their workplace according to an agreed schedule or they book their working stations for a specific time.

Satellite office

Satellite office may mean a radical change for the organizational structure. The organisation will keep a "backup office", but a part of employees works from home. The company will save part of its space rent costs or it may if it is desired move its building to a more expensive location while keeping the same rent costs. For some companies such solution may be suitable because companies will move closer to their customers and clients.

This way may be used in a global economy environment on an international scale. Some companies may move their offices to so called Offshore, where they do not pay (or only pay a negligible) corporate income tax.

The companies may employ people in other regions or even in other countries. It is obviously possible to employ people anywhere around the world but the companies may face other cultural and educational standards. This option is still not used very frequently.

Local centres (telecentres), "telecottages"

One interesting option, which has been omitted due to popularity of individual view on teleworking, is the option to work remotely in local centres, which represent a step between working from home and working from the office. There are many types of local centres and they may be used for work in remote areas or in areas with higher unemployment. In the past, they were established everywhere where it was not profitable to provide each employee with his own home equipment and where the employees live in the same area. Today this option is used especially for houses with physically disabled inhabitants who have the interest and conditions to work in this way. [10]

Local centres may be placed at municipal authorities or schools or on larger farms. This working style has a number of advantages for both employees and employers. For employees the main advantage is the possibility of social contact with other employees. For the employer the main advantage are lower costs. The disadvantage might be bigger distance of these centres from the employee's home. Creating local centres may help to solve the issue of the countryside areas with migration of the young and educated labour force to the cities.

Telecottages are small centres for teleworkers, which are usually found in villages or in remote areas. This working style is proving successful in the United States, Canada and Australia. In Europe the first telecottages were established in 1985 in Scandinavia. Some sources talk about this working style as a subgroup of local centres. These centres are for example established to support local business activities and to support tourism. [11]

In order to understand the importance of local centres, it is important to compare some aspects of homeworking and the local centres. It is namely the danger of social isolation - one of the biggest issues faced by teleworkers. The teleworkers who suffer most from isolation are those who mainly work from home. People working from home stop being used to risks, which are common for normal interpersonal communication. If they are only used to computer communication, they may lose instincts needed for normal communication and this may lead to feelings of dissatisfaction or depression. [12]

Teleworkers may also miss the temporary period between work and free time, which is clearly

determined for “normal” employees.

This handicap can be resolved by the local centres where the working process is similar to a standard workplace with its disadvantages but also with its advantages.

An advantage for working from home may be absence of workplace conflicts and more time spent with family members. On the other hand, a person working from home misses out on a lot of social contacts in the workplace and he may be stressed by lack of understanding of family members.

Homeworking

Homeworking as the name suggests represents a situation where the employee works at home or visits his clients.

There are two types of homeworking:

A) The employee spends most of the working hours at home but spends some part of the day visiting clients or employers. These employees spend only about 30% of their working hours at home and the rest of the time on the way to their clients and working at their offices.

B) The employee works only from home and the activities are like: data entry, text creation, translation, etc. This type of work is suitable for employees who cannot leave home for some reason. These may be for example women on maternity leave or physically disabled people. The advantage of this working style is mainly the possibility to work from home and thus save the time needed to commute to work. The gained time may be used for other activities. Working at home may mean some limitation for many people. As we said, the main issue is social isolation of the person, which may have serious impact on his mental health. That is why many physically disabled people prefer to work outside their home where they can have social contact. Another disadvantage are increased costs to provide equipment to each employee (computer, modem). The traditional reasons for employers to use teleworkers (especially homeworking) are the potential to reduce fixed costs, for example heating, lighting and transportation costs (in many international companies employees receive a subsidy for their commuting to work). Therefore the trend today is to enable the employees to work from home and the company reimburses them some costs. In most cases the companies save some financial resources.

Homeworking may be understood as a counterbalance to the local centres, which are a step between working from home and from the office. The main disadvantage of homeworking compared to local centres is isolation of employees.

Especially during economic downturn employers find it hard to find employees from some unusual professions. The use of teleworking provides a more flexible solution. In a similar way, it is also possible to employ for example physically disabled people who may not commute to work.

Teleworking (from home) is particularly suitable for women on maternity leave. In this period the woman mostly interrupts her work for a long time to take care of her child. During maternity leave she loses touch with her workplace, which makes it more difficult for her to return, notwithstanding a somewhat worse financial situation. This period is feared by both women and some employers because they lose for a long time a trained member of staff and there is a problem of how to find a replacement who would be willing to replace her for a determined period. Switching to teleworking will secure some income to the employee and she will not lose her professional skills. This approach is possible especially in case of highly qualified employees in whose cases it is worth it for the employer to invest in the equipment for working from home, unless the employee is not sufficiently equipped (computer, internet connection, printer, etc.).

Similar advantages as in the case of maternity leave may arise in case of sick leave. Under certain circumstances it is possible for the employee to work during his sickness; his work must

not threaten his health condition and therefore this option must be discussed with a doctor. This option may be considered only in case of employees who are so promising to the employer that it is worth it for him to equip them with a computer. The employee must be suitably motivated for such option. The most frequent motivation for such work will be the difference between employee's salary and the sickness benefits.

A teleworker may if needed save some of his family budget expenditures, especially for transport to the workplace (this amount may not seem important at first glance but in case of long term work it may become significant). Work from home may on the other hand cause conflict between the work activity and family life or may deepen an already existing conflict. In the past people worked at home more often and work at home was more connected with family life. Since 19th century, most workers - men - started leaving to work outside their homes. In case of teleworking, these employees stayed at home and their day-long contact with their family may have caused higher conflicts than when the household members see each other relatively rarely.

Another example of such conflict might be the position of a women in the household where she takes care of her children while teleworking. For this woman it might be very difficult to divide her time and focus between teleworking, housework and raising her children.

In the same way as good relations with colleagues are important for employees, in case of working from home understanding from the household members is also very important.

Mobile teleworking

A person who does not work at the office but must always be connected with his organisation is connected for example via notebook. In such case he may work from anywhere around the world where he has the possibility to connect to the Internet. This type of employees may work in any means of transportation such as for example car, train, plane (in case the specific airline regulations allow for such activity). Typical representatives of such professions are guides, travel agency representatives and managers, who can be connected with their workplace any time during their business trips. [13]

With regards to lifestyle of teleworkers nowadays, there are essentially two groups: those who are constantly on the move and those who only work from home or change between working from home and at the workplace.

The employees who travel have high geographic mobility. [14] Such worker mostly has perfect technical equipment and during his trips he also prepares the documentation he needs. He only returns to his company main office not to lose contact with the management and his colleagues. [15]

The second type are workers who work from home or change between working from home and from their workplace. Their technical equipment is usually less demanding. Mobile tools are usually not suitable for permanent office work, however, even such tools may have auxiliary equipment enabling full work. For the tool to be suitable for permanent work, it is necessary to have a normal keyboard (table computer or notebook). Other devices such as tablets, mobile phones or special devices are mainly made for field operations. If we also counted mobile phones among mobile internet terminals, their total growth would be enormous, however, permanent teleworking with most of these devices is almost impossible. [16]

CONCLUSION

Teleworking offers many advantages to employees and employers but at the same time it presents additional demands for both sides. This work arrangement also brings some disadvantages. Most of these disadvantages may be partially eliminated by following the recommended processes. Nevertheless, it is necessary to count with some negative aspects, which we have mentioned.

Teleworking may mainly change some employee management processes and enrich the human resources management methods. Teleworking is a multidisciplinary phenomenon and, therefore, teams composed from various professions should cooperate on it.

Nowadays, teleworking is mainly used in developed countries, which have better conditions than the Czech Republic (e.g. the US or Nordic countries). Some economic aspects of teleworking could be interesting for Czech companies and they could provide them with a competitive advantage. Teleworking is definitely not a unique or omnipotent work optimization tool, however, it may have a positive impact on economic development. We may avoid its possible negative aspects by sufficient communication not only to the executives but also to other employees. Teleworking may complement alternatives, which are used by people to resolve their unemployment. This work arrangement initially presents higher operational costs but these may be reduced by a reasonable approach not only by employers but also by employees. The main disadvantage of teleworking is the fact that it may be used only in case of certain professions. Therefore, the composition of the unemployed in a given region may not correspond with the required qualification structure of teleworkers. Nevertheless, this work arrangement may have a positive impact on unemployment in a specific region.

Teleworking is very convenient for the tourism sector. Workers in this field may work in this way in some professions responsible for travel agency operations. Teleworking is particularly suitable for field workers. In tourism these are mainly guides and travel agency representatives who most frequently perform mobile teleworking.

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A SYSTEMS APPROACH TO MEDIEVAL RUINS MANAGEMENT

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ABSTRACT

The aim of this paper is to briefly discuss the complexity of monument care and the young heritage science disciplines on the example of historical ruins management. There is an empirical reflection on problems connected with historical ruins management presented as an introduction. The following part then presents a possible methodological interconnection of a systems approach and cultural heritage management. The next part of the paper first introduces the RUINS project in general and then one of its methodological outputs—rules and model forms for ruins. Based on practical experience, the paper concludes that the more general methodological basis and foundation of cultural heritage sites management may be general systems theory and a systems approach.

KEY WORDS

Historical ruins, heritage science, systems approach, RUINS project.

INTRODUCTION

Responsible preservation and maintenance of historical ruins requires, in addition to the usual methods of care for historical buildings and works of art, the application of completely specific procedures. Their uncommon nature is based on the fact that normally it is unusual to preserve a building in an incomplete state. In order to cope with weather and other environmental conditions, a building needs to have a completed system of finishing elements such as roofs and roofing, wall toppings, plasters or protective coatings. The application of these standard elements, however, often contradicts the prevailing conceptual requirement to "protect a ruin as a ruin", and therefore the conservation of partially preserved buildings entails a number of unusual technical problems.

The stone masonry of a castle or fortification walls is often made of a variety of rock materials, but what is important is its outer face is always very carefully flat. The practical reason is apparent: to make it difficult for potential conquerors to climb up. In contrast, the internal mass of the thick walls is composed of a rubble mixture of stones and mortar utilising locally available materials. The walls had to be strong and solid, but also finished as fast as possible.

When such a typical three-leafed wall is incomplete, it doesn't matter if unfinished or ruined, its inner part is much more vulnerable to weathering effects than its outer facing. This is logical, as it was never intended to be exposed. The process of its dilapidation accelerates, and water introduced from the core of the wall can destroy the well elaborated outer faces from inside. The same applies to plaster, windows or roofing. Wanting to protect a ruin "as a ruin" requires creating quite new protective barriers, preferably invisible, designed not to spoil the entire impression of the site.

Indeed, the key to understanding why protecting partially preserved monuments is such a complicated and complex task is learning how divergent the requirements for their functions may be. The historical popularity of the ruins is, of course, related to the romantic fascination for fragments of extinct cultures and to the feeling of sentimental regret when observing the disintegration. In the past, these reasons even led to the artificial installation of ruins in gardens and parks surrounding aristocratic residences. If it were enough just to stimulate emotions, then it would be fair to leave these mysterious places to their fate.

Modern times, however, have brought increasing demands. With the development of critical historical research, the remains of historical buildings are worshiped as unique evidence of the development of material culture. If the process of their disintegration does not stop or at least slow down, their physical substance and also the information stored in them may disappear forever. The information contained in historical ruins can, of course, be stored on various recording media. The latest technologies bring increasingly sophisticated tools for field documentation, but authentic material still remains an irreplaceable source.

Since the beginning of the 20th century, the theory of monument care has been very sceptical about returning ruins back to a hypothetical original form, and in most cases considers that unacceptable (Riegl 1903). On the other hand, modern additions made in contemporary architectural forms mostly obscure the historical character of buildings, and the impression when visiting such modified castles is usually annoying.

A wide range of problems is related to accessibility conditions and the safety of movement around heritage sites. As in the previous examples, there is a contradictory situation where, on the one hand we want to preserve the romantic silhouette of a ruined castle, but on the other hand, at the top of the hill we expect information about the castle history, access to all parts of the castle, panoramic views, refreshments, clean toilets, and all that of course without the risk of falling somewhere or something falling on us.

It is clear from the above that the discussion on adequate protection and use of historical ruins is a tangled topic, requiring a systematic approach from the very start, even in the case of seemingly simple modifications or changes.

SYSTEMS APPROACH AND CULTURAL HERITAGE

The initial outline of the practical problems facing the practice of maintaining and managing partially preserved monuments shows that this is a very complex matter. The traditional approach to preservation of monuments was focused (and often exclusively) on the technical and construction aspects of the preservation and maintenance of a particular building. However, the complexity of the issue requires the inclusion of a broader context such as:

- building history
- historical context
- previous construction works

- conservation interventions
- social environment
- economic environment

And also include multiple dimensions for further object handling:

- preserving historical value
- technical-building sustainability
- use and reuse of the object
- economic sustainability
- safety
- object management and marketing.

Starting from the definition that a systems approach can be understood as a purposeful way of thinking or problem solving, while the examined phenomena and processes are comprehensively understood in their internal and external contexts (Vodáček 1997), we can state that the systems approach is a suitable general methodological basis for theoretical and practical areas of cultural heritage.

The need to incorporate technical and humanities in the field of cultural heritage research has led to the formation and emergence of a new scientific discipline in recent decades. One of the leading platforms for shaping and operating this scientific field in Europe is the emerging research distribution infrastructure E-RIHS (European Research Infrastructure for Heritage Science). The current definition of this scientific discipline comes from this platform: *Heritage science is the interdisciplinary domain of scientific study of heritage. Heritage science draws on diverse humanities, sciences and engineering disciplines. It focuses on enhancing the understanding, care and sustainable use of heritage so it can enrich people's lives, both today and in the future. Heritage science is an umbrella term encompassing all forms of scientific enquiry into human works and the combined works of nature and humans, of value to people.* (Heritage Science on Wikipedia, n.d.).

An essential feature of heritage science is interdisciplinarity. The interdisciplinary approach, the study of the complexity and the relationship of the whole to its parts are typical for the formulation of the principles of general systems theory. It is beyond the scope of this paper to deal with possible and existing methodological interconnections of general systems theory and heritage science. With regard to its objective, we will now deal with the demonstration of the complexity and systemic concept of ruin management, as emerged within the practical problems solved in a particular application project in the field of cultural heritage.

RUINS PROJECT

RUINS: *Sustainable re-use, preservation and modern management of historical ruins in Central Europe - elaboration of integrated model and guidelines based on the synthesis of the best European experiences* is the name of an international project supported by Interreg Central Europe (RUINS project, n.d.). The project was launched in 2017 and will be completed in 2020. The project objective is to give “a second life” to medieval ruins through modern management and attributing contemporary, socially useful functions, while preserving the historical value of these sites.



Fig. 1 - Logo of the RUINS project

The project aims to develop and disseminate transnational guidelines and an integrated model of contemporary use, modern management and protection of medieval ruins in Central Europe in order to enable elaboration of comprehensive management plans for ruined historical sites. Elaborated comprehensive management plans will help owners and managers of historical ruins, local, regional and public authorities to exploit the economic potential of this heritage in the economic development of regions, and to preserve the value of medieval ruins as cultural heritage.

As generally mentioned in the previous section, it also applies to ruins for which the traditional approach to preservation has only been focused on one issue— how to maintain historical ruins from the technical point of view. Innovation of the project is to go beyond technical problems and to create an integrated (system) model that brings together three main elements: contemporary use, modern management and sustainable preservation of ruins. Activities undertaken within the project are a combination of research tasks concerning documentation and evaluation of the technical state of ruins, conservation tasks concerning the form of protection of ruins and, most of all, activities aimed at contemporary use and modern management of historical ruins. Apart from other partial studies, educational events and pilot testing on selected ruins, one of the outputs is also universal rules and model forms. Following is an introduction of these in more detail.

RULES AND MODEL FORMS FOR RUINS

The main methodological outcomes of the RUINS project are extensive comprehensive Best Practices Handbooks covering three main dimensions: sustainable conservation of ruins, contemporary use and modern management. Apart from other partial studies, educational events and pilot testing on selected ruins, one of the outputs is also universal rules and model forms. These are introduced here in more detail. Again they address the issue in all three dimensions:

- Universal rules of sustainable preservation, protection and conservation of historic ruins
- Universal rules and model forms of sustainable use and re-use of ruined historical sites
- Universal rules and model forms of modern management of historical ruins

UNIVERSAL (TRANSNATIONAL) RULES OF SUSTAINABLE PRESERVATION, PROTECTION AND CONSERVATION OF HISTORIC RUINS

Objectives of these rules are:

- To outline a methodologically correct approach to preservation and conservation projects of historical ruined sites
- To outline the main conceptual steps that characterize a preservation and conservation project for historical ruined sites
- To provide all interested stakeholders with insights on possible types of preservation, protection and conservation

The document is formulated in the form of 13 principles such as (selection):

- (1) The historical ruin (shaped in the centuries-old destruction process) is a full-value form of the monument. Authenticity is the main architectural-spatial, artistic value and historical feature of a historical ruin
- (3) The protection of historical ruins should be comprehensive—it should include walls preserved, earth forms (being relics of old fortifications), rubble layering and landscape (of which ruins are an element)
- (5) The most appropriate form of protection of historical values of a historic ruin is its consolidation and protection of the historical substance against destructive processes and making it available to tourists
- (6) Maintaining the form of a permanent ruin requires similarly to other historical buildings continuous conservation and construction operations; monitoring the condition of the ruin is a condition for minimizing the scope of necessary treatments
- (8) All interventions in the historical substance of historical ruins can be made after taking inventory, landscape valorization and a full range of research (historical, conservation, archaeological, and architectural)
- (12) The basic purpose of the project documentation for the ruins as well as on the basis of its implementation should be:
 - Exclusion of reconstruction works
 - Protection through conservation of walls and architectural elements
 - Securing construction structures and their relics as part of restoration works
 - Correction of damaged historically most important architectural elements as well as functional systems
 - Making the ruins accessible to the public
 - Making the ruins more attractive

UNIVERSAL RULES AND MODEL FORMS OF SUSTAINABLE USE AND RE-USE OF RUINED HISTORICAL SITES

Objectives of these rules are:

- To outline a scientifically correct approach to the project of use and re-use of historical ruined sites
- To outline the main conceptual steps that characterize a project for use and reuse of historical ruined sites
- To address the designer towards universally consolidated and shared compositional and technical solutions
- To provide all interested stakeholders with insights on the possible types of contemporary use of historical ruined sites

The rules are formulated in the form of principles, which are as follows:

- Principle 1: Preservation of Authenticity
- Principle 2: Planning for Sustainability
- Principle 3: Determining a viable new use
- Principle 4: Identification of contemporary uses

- Principle 5: Quality of architecture and design
- Principle 6: Accessibility and visitor services
- Principle 7: Maintenance and management

UNIVERSAL RULES AND MODEL FORMS OF MODERN MANAGEMENT OF THE HISTORICAL RUINS

Objectives of these rules are:

- To outline a scientifically and socially correct approach to the management form of medieval ruined sites
- To outline the main conceptual steps that characterize a project of management of historical ruined sites
- To provide all interested stakeholders with insights on the possible types of modern management of historical ruined sites

The rules are formulated in the form of actions, which are as follows:

Action 1: Gaining of preliminary knowledge of the building

Action 2: Gaining of preliminary knowledge of the context

Action 3: Identification of the management model

Action 4: Identification of contemporary uses and viable new uses

Action 5: Financial activities

Action 6: Projecting the adaptation to the new use of the building

Action 7: Promotional and finalization activities

CONCLUSION

The purpose of this paper was to briefly introduce the complexity of monument care and the young heritage science disciplines on the example of historical ruins management. Traditional approaches focused mainly on technical and conservation aspects, but the long-term sustainability and efficient management of a historic building requires the inclusion of social and economic components and destination marketing.

The complexity of entry conditions and areas as well as the complexity of possible solutions require a broader methodological approach than just limiting the solution to adequate preservation and conservation of historical values. The benefits of such an approach in the practical area of historical ruin management were verified by the ongoing international RUINS

project. The analytical part of the project and the pilot verification are a good empirical test of the benefits of an interdisciplinary approach and a broader view of cultural heritage issues.

The authors conclude from the mentioned practical experience that a more general methodological basis and foundation of such an empirically based approach may be general systems theory and a systems approach.

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USE OF ARTIFICIAL INTELIGENCE AND ROBOTS IN THE SOCIAL MEDIA ENVIRONMENT

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ABSTRACT

modern forms of intelligence- chatbots (bots) - that are able to learn and this creates a space for sharing information through social networks. Bots are software systems used for auto-learning and for sharing information in the air that are understandable to the user and ensures the comfort of the environment in which the user communicates. These software platforms used in social networks create a place to increase the rate of communication to extend their services to users.

KEY WORDS

artificial intelligence, bots, ability to learn, communicativeness, system approach

INTRODUCTION

Chatbots - Software artificial intelligence is used to simplify and automate communication. The term chatrobot or chatbot came out as a term in 1990. In simplicity we can say that it is a communication interface, a virtual assistant, or a conversation agent. In technology, it is an interface that communicates services and brands using a popular communication platform. Digital chat interfaces are popular in applications such as Skype, Facebook Messenger, Slack, Kik, etc. (Amir Shevat, 2017).

Information technology influences life in all spheres of business and civil life. This situation arises, in particular, from the relatively easy availability of information and communication technologies (Zimermanová 2017).

Social media are an inseparable part of modern life, their popularity, and with it, the influence they have in society is beyond dispute. Nadkarni & Hofmann, S. G. (2012) detected two main reasons of Facebook use: the willing to affiliate and want for the self-representation and promotion (Pavliček 2017).

Chatbots are everywhere. Their definition and quality derives from the ability of the medium to answer questions of the jury, or user. The first model tested was able to answer the questions in such a way that 1/3 of the respondents could not tell whether the robot - the machine (software) or the living person - Alan Turing's test. (Srini Janarthanam, 2017).

Sumit Raj in yours book write: states that the exponential use of chatbots has increased over the last period from July 2018 to July 2019 is exponential. (Sumit Raj, 2019).

Chatbots we can divide them into two groups:

1. more difficult to create and manage is based on machine learning (is a subarea of artificial intelligence, so this group is often named as AI Chatbots). Such a chatbot then learns how to do it help the conversations that developers give him, and current user responses. Its then studies from these sources conversation schemes and question response models.

2. a simpler group are chatbots, which the creator defines one the rules by which to interact with the user. Among such rules include, for example, searching for keywords in a user-entered text, or quick responses, when chatbot responds as it should programmed separately for each response. Chatbot instructions they can be simple or very complex. (Rivas,2018)

METHODOLOGY

The research was done on the target group of millenians. For a generation of millenianns are using chetbots in social networks. The target group was chosen purposefully; it was generated by a millennials substantial part of people who could enter a progressive age and be already involved in productive life in great honey. Millennials who use views of value and resources are also used by other users in a stratified society. The global characterization of interactive ways of current Millennium Support was characterized as follows: 44% of millenians use digital management like sms, otherwise other media and 16% of blogging.

((<https://www.goldmansachs.com/insights/archive/millennials/> [2019.11.19].)

In Slovakia, up to 92% use social networks. Of these, 98% send digital messages and up to 70% use it as a source of information, for job search or education. Less than 5% used for blogging. It is probably connected with the mentality of the nation.

(http://www.ivo.sk/buxus/docs/publikacie/subory/Socialne_siete_SR.pdf, [2019.11.19].)

RESULTS, DISCUSSION

The sample of 95 respondents is a classic sample of Slovak photographs. Stratified in a goal that is multicultural and qualifies for a gender-specific component in Slovakia, and it is possible to note that it is possible to record a disregarded fact. The research took place in the period May - June 2019 and September September and October 2019. The age structure was 19-20 years. So they were to the last years of secondary schools and other years of universities.

Chart 1 shows the ways and reasons why respondents use chatbots. Most of the information they get through chatbots is: acquaintances and friends and communication stuff, in other places they get information about banking products and services, entertainment and its offerings, and various information. They were least interested in information about work and education. 1.

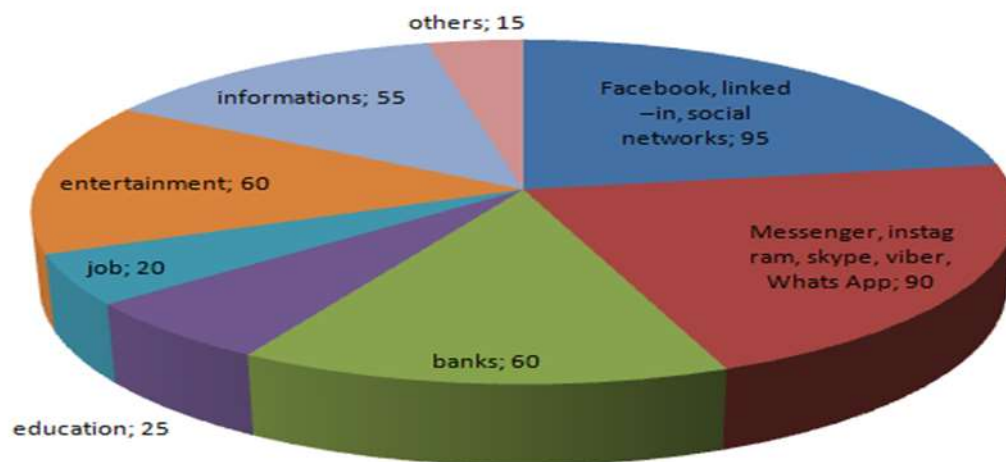


Fig 1 – The place of meeting the chatbot and the nature of the information gathered

Respondents answered a group of questions that found out where chatbots are most prevalent and what qualities they value most. Individual answers were rated by the number of points with the least points being 1 and the most 5.

This implies that they value most of the chatbots that are part of social networks: response speed and accessibility 7/24. The results and reasons for using chatbots are shown in Chart 2

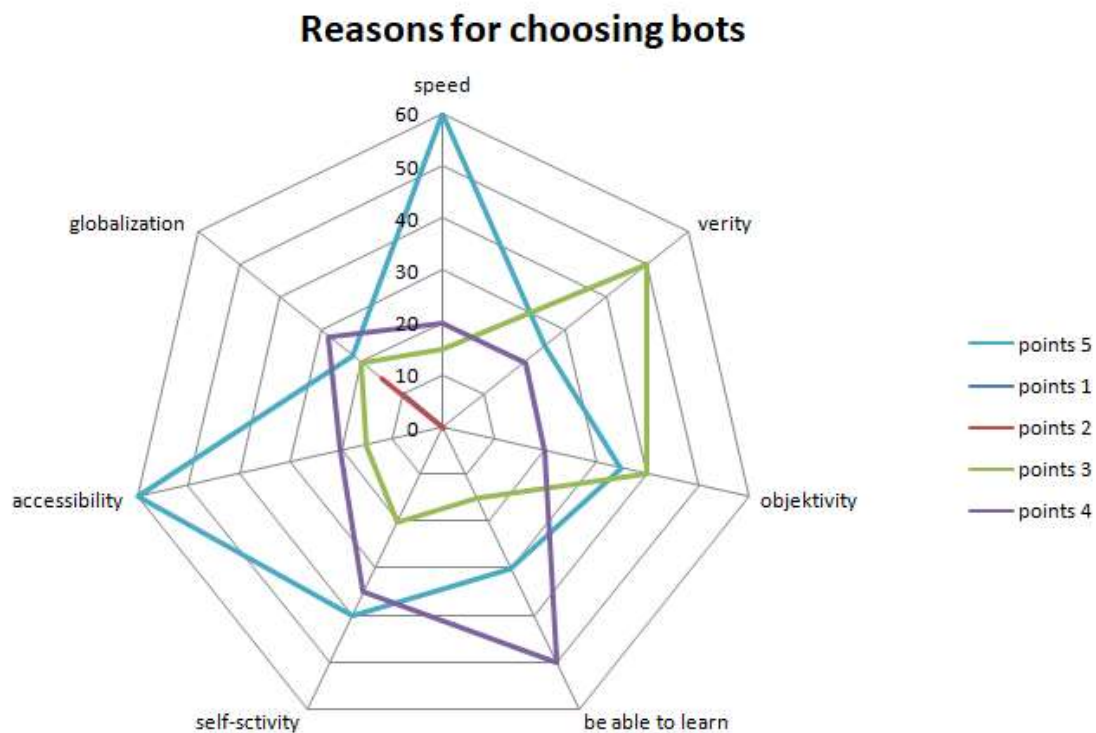


Fig 2 – Reasons for choosing bots.

The last graph shows the potential of using chatbots. Most respondents would welcome the creation of chatbots in communication with state and local authorities. Welcomed by the Interactive Software's ability to learn and share that information for users such as the change of weather or actual danger.

Suggestions - recommendations in percentage

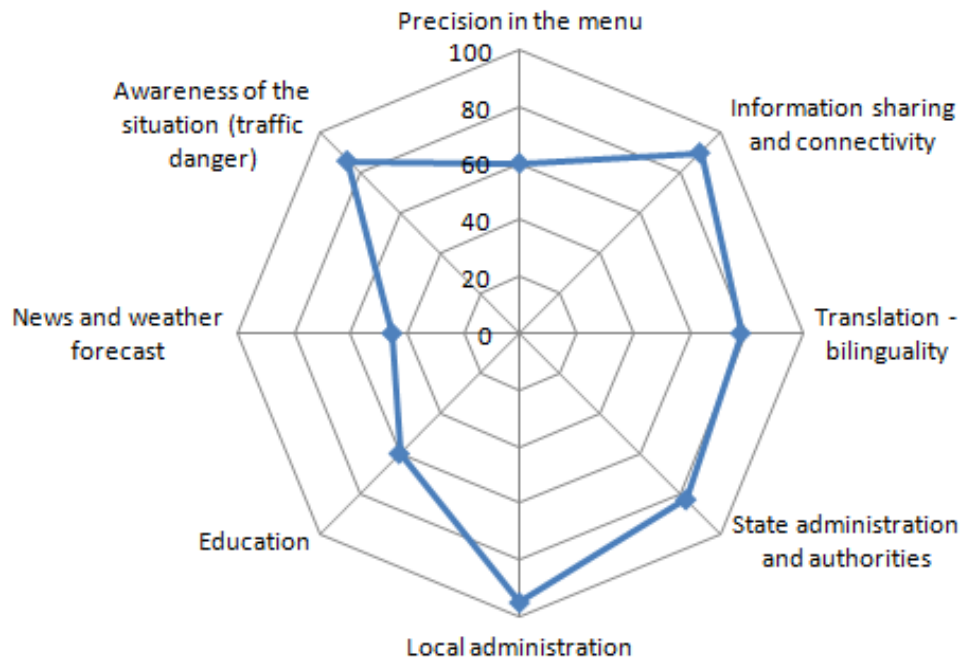


Fig 3 – Suggestions – recommendations

CONCLUSION

Chatbot is a relatively new artificial intelligence communication tool. The results of the survey correspond accordingly. The knowledge and use of chatbots is expected to grow.

This is the evidence that chatbot has a stable place in the communication generally. It is also used extensively in the communication of people who suffer from loneliness. It can become a suitable tool for social therapy.

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SOCIAL MEDIA AND THE INTERNET'S IMPACT ON THE IRISH REFERENDUM

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ABSTRACT

On the 25th of May, 2018, the Republic of Ireland held a vote to change the eighth amendment of our national constitution, allowing for the legalization of abortion in the country. The previous ruling had seen the government recognize the equal right of life to both the pregnant woman and the unborn child. The campaign to change this part of our constitution and legalese the act of abortion in Ireland became known as the "Repeal the 8th" movement. In this paper we will demonstrate the reason for Ireland's opposition to abortion and its legalization, the impact social media and the internet had on voters and finally the actual impact social media had on the final result.

KEY WORDS

Social media, Ireland, referendum

INTRODUCTION

Before the 2018 election abortion was only permitted in the Republic of Ireland where pregnancy represented a "real and substantial risk to the life" of the woman. The 8th amendment of the constitution clarified that this was the only scenario a woman may be granted to have an abortion. Article 40.3.3 of the Irish constitution stated that:

"The State acknowledges the right to life of the unborn and, with due regard to the equal right to life of the mother, guarantees in its laws to respect, and, as far as practicable, by its laws to defend and vindicate that right."

To understand why the nation and government was so opposed to abortion at the time, it is important to have some historical context. Ireland has had a deep-rooted and troubled relationship with the Catholic Church for many years. The Catholic Church controlled the education system as most schools had been set up by the Church, and classes were taught by priests and nuns. The Church controlled what was on the educational syllabus, and therefore could sway the public opinions of a nation. Famously in 1950 Ireland nearly granted a programme guaranteeing mothers and their children up until the age of 16 free healthcare - a programme that at the time would have been quite liberal. However, due to opposition from the Church and in particular the Archbishop of Dublin John Charles McQuaid the government backed down from the proposal at the last minute, with Ireland's prime minister at the time citing it "opposed Catholic social teaching" (Youth for Europe, 2018).

The push for legalization of abortion continued on the back of fighting against the Catholic Church regime in Ireland. However, the Church began to lose its power domestically due to many well-publicized controversies like sex abuse scandals, a growing secular society and a decline in organized-religion nationwide. As the "Repeal the 8th" movement picked up steam, many began to join the cause and fight for legalization of abortion. In 2012 a tragedy struck where the death of Savita Halappanavar

could have been prevented if she had not been denied an abortion when one was required. Her death came as a result of her suffering a septic miscarriage, and her death would see her become a face of the referendum. The time had come for a vote to change the legislation of a nation, and on May 25th the country would have its referendum.

REPEAL THE 8TH MOVEMENT AND SOCIAL MEDIA

The most recent referendum in the country was in 2015, where the country became the first to legalize same-sex marriage by popular vote. This vote was marked by a massive turn-out from younger voters (18-24). The recent presidential election in October 2018 marked a 43.87% voter turnout, drawing 1,473,900 votes. The same-sex marriage vote and abortion referendum drew 61% and 64.13% respectively (Aodha, 2018). If we contrast this again with the voter turnout for the European elections in 2014 in Ireland (a paltry 28%), it is clear that for a pro-choice vote to be successful the movement must motivate young people to vote. The creation of the Facebook page “In Her Shoes - Women of the Eighth” was instrumental in sharing the stories of women affected by Ireland’s restrictive abortion laws, with Storyful claiming the page had the highest level of interaction in the month leading up the vote with 640,000 interactions in the 30 days before (Storyful, 2018). The national broadcasting station RTE conducted exit polls (RTE, 2018) on the day of voting, and discovered that 43% of people declared personal stories in the media (such as Savita) swayed their decision to vote. The Facebook page was so instrumental in the movement for pro-choice rights as it finally put a face and a name to all the horrific stories people had been hearing the last few decades. By making people like Savita Halappanavar and her death a figurehead of the movement, people saw the need for change. Many women shared their story of having to travel alone to the United Kingdom to seek abortion, as their own nation had failed to protect them. This was sadly an all too common course of action for many women, with Ireland accounting for 67.9% of all non-domestic legal abortions in the UK just two years before the referendum would take place. This habit of forcing women abroad to have an abortion legally would be infamously coined as an “Irish solution to an Irish problem”. It was incredibly common to hear stories of a family relative or friend who had to go through the traumatic experience, with 34% saying experiences of people they knew influencing their choice to vote yes as per the RTE (2018) exit poll.

The facilitating of sharing these horrific and moving stories was created through the hashtag of #RepealTheEighth. The repeal the eighth hashtag would become the highest trending on social-media during the months leading up to the election, followed secondly by the #SaveTheEighth movement advocating pro-life and a no vote to the referendum. The issue many found with social-media and politics is that often it leads to discussion “echo chambers”. This is a bias where people tend to associate online with people of a similar viewpoint. This often can lead people to think their viewpoint is the most common and therefore the most likely to go through and win. This isn’t a political issue alone - this issue permeates to things like the music industry where forums believe a musician to be much more popular due to the amount of interest they garner in smaller discussion circles. For this reason, many people feared several things about the true popularity of the Repeal movement on social media. Firstly, people were aware that social-media is primarily used by younger people who notoriously do not vote, especially in a nation with an ageing population like Ireland where the majority of our voting electorate is 65+. Secondly, there was an all too real fear that people would not turn out to vote on the day as they believed the referendum passing through was a sure-thing and their vote was not needed. It was clear that a sustained and measured campaign would be needed to

guarantee the success of the referendum. However, a larger issue was beginning to be noticed - an issue that impacted both sides of the argument.

CENZORSHIP DURING THE REFERENDUM

Before the referendum, over twenty journalists from Ireland gathered to discuss how to best have a neutral referendum that would “protect the country from the barrage of misinformation and propaganda online that had poisoned events in other countries, including the United Kingdom’s Brexit vote and the 2016 U.S. presidential elections.” (Lavin, Adorjani, 2018). Recent controversies like the Cambridge Analytica scandal where people were targeted on the internet using their browsing history and personal data, have scared people that they are vulnerable to so-called “dark ads”. Due to the sensitive nature of the debate it was inevitable that the referendum was going to be impacted by outside forces on both the pro-life and pro-choice side of the discussion. Controversy grew as it emerged that several right-wing anti-abortion groups had travelled the Atlantic Ocean from the United States of America to campaign for a no vote. The Colorado based group “Let Them Live” sent over five young people to canvas voters to vote pro-life which spawned massive outrage as Irish people demanded - including myself - that only those involved directly in this debate should have any political sway. Tensions were beginning to arise, as protesters for both pro-life (no vote) and pro-choice (yes vote) began to get more aggressive in their campaigning. Campaigners were beginning to show more graphic imagery on the no-side, and on the yes-side many campaigners were ripping posters down from the streets.

Online similar issues were arising. Debates were quickly turning sour as would-be discussion quickly disintegrated into vitriol. Many called for transparency during this voting period on what adverts they were being targeted with. More importantly the Irish population demanded to know where the funding for adverts was coming from, amidst claims that foreign-funded campaigns were twisting the referendum. The Irish population wanted this to be an Irish discussion as it was an Irish issue - not something to be manipulated by those outside our nation with an agenda to set. In a rather unprecedented move, Facebook announced two weeks before the vote on May 8th that it would restrict advertising to organizations and people about the referendum in the Republic of Ireland. It is worth noting that this restriction applies only to ads that do not originate from advertisers in Ireland. This is due to the fact that “Irish law bars foreign money from going to political parties and registered campaigns. But the legislation does not cover money spent directly on digital advertising, a loophole that observers say has been exploited by groups overseas wishing to influence the vote.” (Hern, 2018). Google would go a step further when they announced on May 9th that they would ban all referendum-related services through Google AdWords - a system where advertisers pay to display whatever particular adverts they wish to have on the internet.

This neutering of the adverts the voting electorate were exposed to helped keep the referendum an Irish debate. This spilled out onto social media, where last second pleas were made from both sides to vote yes or no on May 25th. The campaign of the Yes vote was made on the back of the testimonies of real-life women with real life tales of tragedy. The mission was to demonstrate the horrific encounters many women have had regarding unplanned pregnancies and sexual assault, and many were lauded for being brave enough to discuss this online and spread discussion of the tragedy and push for legalization of abortion. Social media was incredibly important for the Yes vote to win, as it helped spread these women’s stories. Many accused the No side of utilizing bot accounts, being insensitive to the story’s women had to share online and using insensitive tactics in their posters such as the infamous “License to Kill”. The presence of social media allowed people to share these sentiments and helped further strengthen the Yes vote.

CONCLUSION

Eventually the #RepealTheEighth movement was a success, with the vote going through in a 66.40% to 33.60% majority. Many have credited the complete success in passing the bill to the massive turnout of the younger voting electorate. The younger voters (18-24 and 25-34) had the highest yes vote, with 87.6% and 84.6% respectively voting to repeal. Indeed, the only age cohort to vote No was those over 65, who voted No to a 58.7% majority. I truly believe as someone who convinced fellow friends to vote on social media that without the widespread access and influence of the internet and social media, the vote would have struggled to pass as easily as it did in the end. It is hard to express what a painful, difficult and drawn-out the fight for legalization was. The graph below demonstrates clearly that people were willing to have a discussion on this previously taboo topic, with 25% stating TV debates swayed them and 24% saying social media was the trigger to vote. The impact the media and the internet have on politics and society is larger than it has ever been. So, while this time it was a success in the sense that we managed to have a largely neutral and fair run-up to the day of voting, we must also be aware of the potential impact voting manipulation can have. This is most precarious on the internet, as on the internet we tell all our interests, fears, beliefs and values. The possibility for someone to manipulate this data and twist society into voting one way or another is a matter that governments far and wide must address.

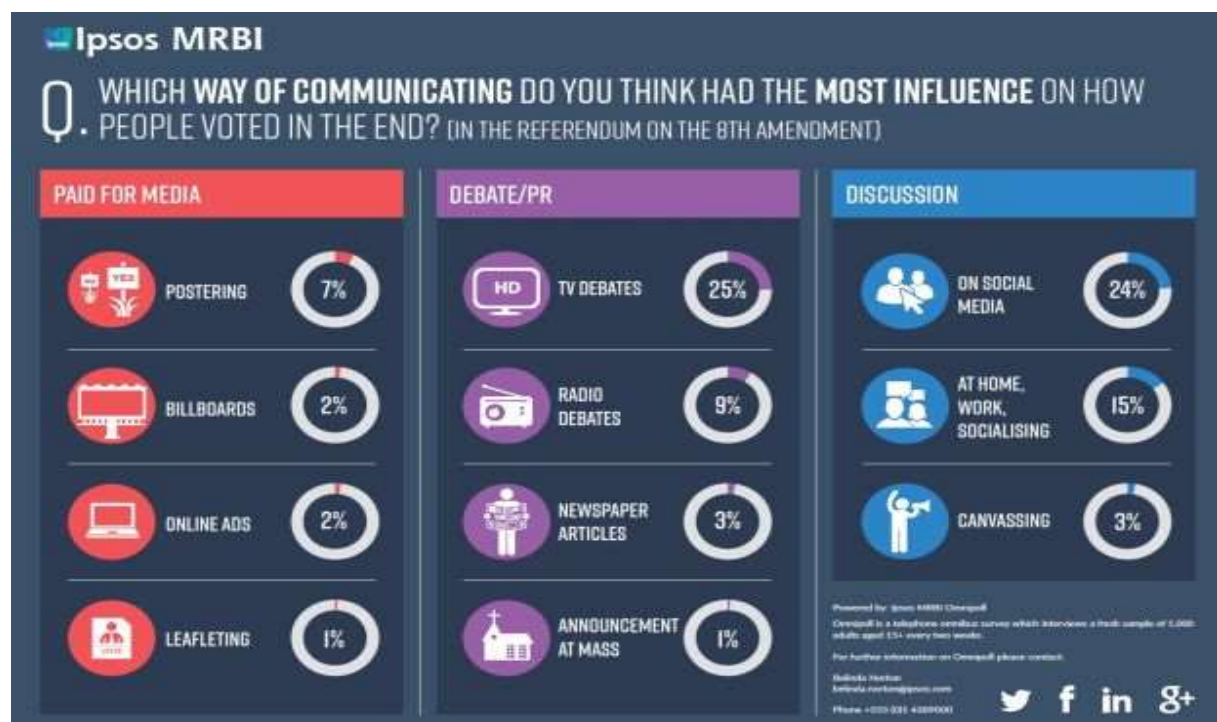


Fig 2 – Influence of communication channels

To finish, an excerpt from Storyful's wonderful piece on how Ireland's abortion referendum can be a test case for future democratic elections (Storyful, 2018):

"There is no doubt that Ireland's referendum campaign was a guinea pig for internet platforms who are working on increasing their transparency around paid content in the run-up to larger political

campaigns. Social media is not disappearing and its use in political campaigns will continue. The Eighth Amendment Referendum showed Irish social media users the shortcomings that need to be addressed by these platforms in order to provide voters with greater transparency in the democratic process."

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