CHAPTER 14

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Realities of New Socio-Virtual Paradigms

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Introduction

Thinking of space as a construct is by no means an easy feat. Transpose that concept from a real environment to a virtual space and blocks are not readily discernible. This is a world that has been immersed in digital otherness as far back as the early 1990s since the birth of the world wide web (WWW) proposal. There exist two dichotomies: those pertaining to the younger generation and those to the older ones, where the former are aware of the digital fantastic worlds and the latter know the real haptic worlds, one where they can still remember that there was a time when a map was something one sought from a bookshop as against one that prompts one with the name of the street, the direction to turn, an occasional warning of a speed camera... In such a scenario, the older generation would be expected to know the physical world to a high degree and less that related to immersive technology; on the other hand the younger generation with their instant maps and online access would be expected to have a greater knowledge of their surroundings through the same access.

Knowledge of one's geographic and social-spatial realities

As an initial field study to understand how far knowledge of one's surrounding is on the ground across the generations, 74 persons aged between 11 and 54 of both sexes were invited to draw 4 different kinds on maps, each within a 10-minutes time-span: i) a map of the World, ii) a map of Europe, iii) a map of the Maltese Islands and iv) their neighbourhood map. The scope was to understand their knowledge of the physical place they live in, with a focus for this study being placed on the easily identifiable map of the Islands (iii) carried out. The islands are small enough to visualise in their entirety, with a veritable pointer to the fish shape of the Island of Malta with a highly specific human-boar heads shape. This exercise serves as the first step to acquire an insight into the expected images resultant from the initial field survey: most persons were expected to draw the fish shape as such would serve as a pointer to the level of knowledge of their conceptual locational framework that each inhabitant should know when going about their daily lives. This outcome would then serve to analyse what would be required in terms of levels of data for visualisation and immersion methodologies which would allow persons to understand what their surroundings look like in an online mode.

Their Conceptual Depiction of Place – the virtual adepts

The analysis shows that very few people are conceptually aware of their surroundings, even for such a small place as are the Maltese Islands. Interestingly, as against the expected results, some very interesting outputs showed that the knowledge is limited in both shape and placement of the same islands. Even when compensating for the difficulties encountered in the conversion of a thought process into a physically-drawn image, the results are still striking in that some do not resemble the islands at all.

Most worrying in this exercise was the omission or total displacement of the island of Gozo which was displaced to the east, north or not at all. In terms of the shape of the island of Gozo, the double head structure is not employed as an association between the thought and the depiction and such a difficult shape is rarely remembered. In the case of Malta, the fish figure was only evident in a few drawings.

Further discussions showed that some persons do not even have an idea of what the south of the island looks like, having rarely travelled there, even though the major industries, the airport, the Grand Harbour and the fishing villages are situated there: all the more vital the requirement to move the spatial aspects from the physical to the virtual. This study is ongoing to discern the level of awareness of one's space and how it can be translated to a virtual world, which is no longer an abstract concept but an inevitable technological evolution, where humans move most of their activity into virtual space.

Their Conceptual Depiction of Place – those still grounded

A further study (Formosa and Formosa Pace, 2013) showed that the relationship between spatial statistics and the perceptions of administrators and other participants in the Social dynamic (Politics, Religions, Education, Family and Economy) differ widely. Few actually perceive their reality as the data and information pertaining to their reality is depicting it.

A detailed three-year study of three thematic pivots sought to study crime, social issues, and landuse (CRISOLA) as an example for the proposed virtual research mentioned above. CRISOLA structures as covered by this project sought to understand the outcomes of the realities faced by the people on the ground, the experts in the implementation agencies pertaining to the three pivots as well as the administrators who manage the day-to-day running of the areas.

The project's emphasis on the spatial analysis of crime through an immersive process was aimed at investigating the relationships between the activity and the social and urban spaces they occur in. The horizontal approach is evident where GI data layers are created for each activity and the relevant correlations investigated. This process builds a visual map of the offences, the social relationships they pertain to and the landuse aspects they partake in. The project attempts to identify the linkages between the socio-economic/ cultural parameters towards an understanding of poverty and deprivation as a surrogate for social and community health, the offences as a measure of attractiveness of an area and focuses on offender data as a measure of social disorganisation and the landuse zoning as a measure of affluence, leading to an understanding of opportunity structures.

The horizontal dynamics resulted in the identification of the social-spatial constitution of the areas which leads to a social-zoning structure which identified whether an area is taken up by a specific zoning type, whether the activity that pertains to that area is related to the economic activity dominant in the area. In turn, the study sought to review the presence of criminal-spatial constitution of the areas which leads to the creation of maps outlining the crime-zoning structure and that of the physical constitution of areas leading to a landuse-zoning structure. The study builds up an understanding of the study areas' dynamics and the relative impact on social capital and social cohesion, that on security and safety and that on spatial capital. The analytical results would in turn aid the researchers to propose policy change based on a pivot of social change, criminological change and landuse change as based on the main finding in the area under question.

The Comparative Approach - Spatial Analysis and Perception

A comparative exercise was held between the data emanating from the statistical outputs and the perception of the experts and administrators. This comparison was held throughout the areas and in this analysis the generic trends are reviewed in order to understand the issue at NUTS3 (Malta and Gozo as distinct Islands).

The process entailed the depiction of all the three JANUS pivots of crime, social and landuse issues. All the zones were mapped and layered in the same map, allowing for a review of the overlaps between the different pivots: crime, social and landuse. Interestingly the perception of the different stakeholders varies by pivot and by the location in itself, depending on the thematic perceptions they have of the locality as well as knowledge of the physical area itself. In some cases, such was lacking but in others the level of detail was such that the outcomes proved consonant with the target to mitigate the thematic problems being faced in the area.

Taking the concept a step further towards community safety in a virtuality

One can debate why such a study is required is based on the need to understand one's physical surroundings in order to understand the next level to take up a vital discussion of virtual space in the political, social and economic worlds. The world has evolved and

there is a whole new definition for encroachment, which has become anthropomorphised and taken residence in our lives through the virtual portal. Not simply access but pure immersion. No longer the domain of the real world, privacy has become something surreal where access to gadgets and the virtual world has placed us in real-time touch with the rest of the world (the entire world not simply that which revolves around our personal space) most often without us noticing or even wanting.

But where does this take us? From a personal space situation to an immersive one, we have actually made the world both safer and less secure: contradictory but true. Safer as in we have knowledge that loved ones are safe and one knows their location and cohesion remoulds itself to strengthen ties, something that modern and post-modern society has eroded and led to an increase in crimes such as crimes against the elderly, thefts from residences, amongst such cases. On the dark side all this virtual immersions has actually given a boost to cyber offenders to monitor victims and time their predation.

Another unobtrusive but potentially dangerous situation concerns the use of everyday gadgets such a simple TV. Not so simple nowadays but every household is connected to some company or other. Cases of monitoring by rogue technicians in other countries has been documented: review what criminologists call the routine activity theory and notice that one's daily activities follow a set pattern: switch on the TV, watch the news, the kids watch their cartoons, the partner watches the endless survival series, watch the news again and then off to sleep again. Once one goes abroad or off to work the TV goes dormant giving a message that the occupants have exited the building. Even more so, some people are taking the habit of leaving the TV on whilst off on a holiday: who can take more than a few hours watching the same station, let alone a whole week. A rogue technician of officer could trace such an action and take their time to act.

Virtual worlds have also been taken to the next step where people can live 'real' interactive lives online, building businesses, relationships and many a replica of the real real world. Virtual criminals have fine tuned their activity and destroyed such livelihoods, scammed people through illicit money-making ventures, created virtual businesses that disappear in an instant, and a thousand other activities, most dangerous being identity theft. Second Life is a case in point where such activity has resulted in lost economic and personality theft. Many a person sits in a British jail, with the justice system none the wiser on who they were born as.

Post-Normality and in the Neo-Society

With a perceptual shrinkage of one's personal space moving from a socially-cohesive arena where everyone has a social role in a community, today's structure is leading to an anomic society. With the exponential increase of high-density residential areas, the mindset has moved away from a social-role one to a more hedonistic structure: the personal space within a dwelling unit has become really personal and there is little time for social activity. This situation has resulted in residents becoming totally alienated from their surroundings inclusive of who the next door neighbours are, even worse than a NIMBY scenario where at least the backyard is still known... This does not point to a return of a stifling past governed by strict political, religious and community mores, but it is a reality that has fuelled the rearing of the dark-side head of social interactionism. Crimes committed in residential areas, in social and community facilities, in commercial areas as well as in the streets have taken an other-wordly reality. Why should one bother to report an offence or even to protect oneself from a potential offence when there is little time to interact with the immediate vicinity and its goings'-on?

A Way Forward

Communities cannot live without individuals and vice versa. In a growing anomic society, individuals are too busy to look after the locality before it tips and becomes too stigmatized to come back to normality – ask anyone which is the 'worst' town in Malta and nine out of ten responses relate to the same town... It is here that the administrative units locally termed local councils need to put their due share. They are doing their utmost within the confines of the current legislation but need to involve the individual to participate in a neural-network styled interaction with continuous feedback that ensures that vandals and potential offenders are thwarted beforehand. A real-time socio-technic monitoring system is required that balances the protection of an individual's privacy whilst ensuring that the social and community areas are given a vibrant comeback (Cosgrove, 2006).

Theoretical approaches to understanding the concept of space: a study through criminology

Environmental criminology an serve as the base element for the study of virtualisation and its inherent interactionism due to its understanding of relations related to social activity and the surroundings they occur in. Also called urban ecology, environmental criminology is the study of crime and victimization in its relation to place and space. It is also described as 'the geography of crime and 'the ecology of crime', and attempts to develop an insight into the analysis of the relationships between place, crime and offending (Bottoms and Wiles, 2001).

Environmental criminology takes into account the boundaries within which people act, such as work spaces, meeting-points and recreational areas. It explores the spatial concepts inherent in the wider scenario of criminal activity, such as the widening reaches of offenders due to access to new technologies and inventions (better vehicles, instant mobile communication devices), as well as 'zoning' policies instituted by planning authorities and transport. Interesting to note is the opportunity for emerging crime scenarios where offenders engage in computer crime that does not recognise any border or state, with the offender using remote technology to commit an offence from fraud to pornography.

Historical development of the theory

The main influence for the study of environmental criminology grew from the work of the Chicago School of Sociology, with the main proponents being Shaw and McKay, and their 1930s' theory of social disorganisation. This was based on urban work by Park and Burgess in the 1920s, who created the concept of human ecology (Maguire, M. Morgan, R. and Reiner, R., 1997; 308). Burgess's zone model of urban development conceptualised that there are five concentric zones in a city where each zone is characterised by different types of residents who migrate away (transit) from the centre as their status improves. Over time, growing cities would engulf other peripheral towns that would become zones of transition themselves. Since urban areas contain disproportionately high rates of social problems, the larger the city the higher the concentration of poverty, welfare dependency and crime (Maguire et al, 1997; 308). It would be interesting to study how such will eve love in the virtual worlds.

This is further enhanced due to the boundaries imposed by such phenomena as urban sprawl, where inelastic cities are created, that have no opportunity to keep on expanding. Such boundaries do not exist in virtuality and poverty is more related to access to the networks as against to goods, which is where no forms offences are forming in the virtual world through technologically-new offence categories and theft of access nodes/ bandwidth in the real world to be able to access that same virtuality.

Other researchers covered different socio-economic/socio-cultural aspects. Schmid (1960) identified 6 types of hypothesis that could be used to account for patterns of crime. These were: i) the "ecological segregation/contingent control" hypothesis where high frequencies of crime reflect opportunities, ii) the "drift" hypothesis - certain areas attract offenders, iii) the "differential association/cultural transmission" hypothesis - areas characterised by distinct sub-cultural patterns of delinquency and crime, iv) the "social alienation" hypothesis - areas characterised by social problems, v) the "anomie" hypothesis - delinquency is a disruption of the collective order, and v) the "illegitimate means/differential opportunities" hypothesis - differentials in access to illegitimate means.

Other sociological theories on delinquency areas are based on a threefold structure (Gill, 1977): i) the "ecological approach" investigating why people live where they do, ii) the "sub-cultural approach" that analysis how localised and distinctive life styles exist, and iii) the "social reaction approach" that highlights how labels are given to individuals and areas. Will such areas exist in online worlds, will they segregate those with higher-speed access, those with higher bandwidths, access to major servers, access to protocols and tech skills?

Gidden's theory of Structuration (Giddens, 1984), which may serve the project in its study of virtual interactivity, has again brought to the fore the agenda that sociological studies must be based on the analysis of 'social practices ordered across space and time', which theory reflects the take-off point of the Chicagoan School. Bottoms and Wiles (1997) have taken up the concepts of space and time as the major point of departure for environmental criminology studies, stating that Giddens' concept is central to its theoretical base. They bring as evidence his explanations on humans as knowledgeable agents, practical consciousness, his move away from the traditional dualism of objectivism and subjectivism, the duality of structures as both motivators and constraining agents, as well as the importance of routine activity. Structures result in a practical consciousness that is able to follow regular patterns in space and time. One needs to understand how place, over time, is part of the practical consciousness of social actors who engage in behaviour, including actions defined as criminal (Bottoms and Wiles, 2001: 19).

The Case for Techno-Centric and Socio-Technic approaches

Data analysis in the diverse domains has traversed a path that evolved from one employing purely techno-centric approaches based on the concentration of technology as the fulcrum for research to one that is gathering pace towards the implementation of such technologies as a tool for the social sciences. This evolution is being successfully used for a wide range of functions including policy-making, implementation and monitoring interventions on levels of such areas as environmental monitoring to landuse assessment to crime analysis. This migration to the data as against the technology as the major focal point has resulted in a wider legacy disseminated through real-time and updated systems that allow socio-economic and related data to be mapped and displayed either on an intranet or on the internet. As an example, the latter, through Web-GIS functionality has enabled users to view crime in the neighbourhood as well as report crime on-line. Most current tools still leave much to be desired but they are being improved to an extent that real full web-maps will soon be regarded as the main modus operandi enabling real-time research. The functions enable regular monitoring and updating of data, though work is still required to automatically transform that data to information and eventually to knowledge leading to effective policymaking.

The socio-technic approach took off due to the initiation of the analysis process outlined by CMAP has in their criminological process which was based on the concept of creating information based on the analysis of the what, why, who, when, where, why not and how phenomena (W6H). Such data phenomena has helped users build a real or virtual structure that pushes the data remit away from the pure technology to what actually constitutes the data remit.

Analysts seek to investigate each of the W6H pivots to identify patterns to reach

conclusions whether correlations between the thematic variables exist or not. The six pivots can be investigated as follows (CMAP, 2002):

- What data categories were identified? What routines can be identified? What relationships are there between the social variables and other variables?;
- Why did an activity occur? Why did the interviewee partake in the activity (commonalities of a pattern root cause of a social problem)?;
- Who carried out the activity? Who witnessed the action? Who was the participant and the other person (target profiling)?;
- When did an activity occur (temporal analysis)?;
- Where did the activity occur? Where did the target hail from (geographic analysis environmental analysis) (opportunity and routine activity)?;
- How did an activity occur (deductive approach classification and modus operandi analysis)?;
- Why not investigate unrelated variables to elicit if some type of relationship exists (correlation between data layers)?

The way forward

In a rapidly developing world where the introduction of massive online information systems has enabled both the scientist and the general public to interact with remotelylocated data from across the globe, the reality of access to data and eventually to information is slowly bringing forth the realisation that decades-old barriers to access to data still need to be overcome. Data availability suffers from a plethora of scourges that have left entire countries with a dearth of reliable baseline information, particularly small states which have limited human capacity to manage the whole datacycle in the physical, social and environmental domains. The main limitations include the fact that there are few homogeneous structures in operation, which governance situation has rendered data gathering agencies as a series of independent hoarding kingdoms, where data 'ownership' is seen as a private not as a corporate or a national affair thus the main users instead of being custodians transform themselves as the private owners of such data.

Other more technical issues include the fact that there are too many standards to follow, data is not dynamic (gathered ad hoc as a one-off and not real-time), data is not quality assured/controlled, queries are not organised and recorded, data is not secured – ('illegal' use of storage on personal storage devices and other digital media) and that versioning is not practiced. In addition, even where the data is available, there is an upsurge in requests for access to such data which has increased drastically since the www changed society as never before. The www changed a medium that was at best techno-centric to one that is now essentially socio-technic. Increasing requirements for bandwidth has resulted in a need for a reanalysis of Dahrendorff's access issue in contemporary worlds, both real and

virtual, where not all society has access to the information through on-line services.

The proposed plan of work

The sustainable tourism section has identified the need for the consolidation of, upgrading of or launching of new experiences that will enhance the social and environmental capital that the real world is so rich in and which can be ported to the online virtuality.

The main aim of the proposal is to ensure that:

- surveys are carried out in order to gain knowledge on the number of visitors to the • area: by time, type, purpose, etc;
- information is gathered and compiled on the areas from the different sources and • compiled in an information node in the locality;
- an interactive tool is created enabling visitors to gain knowledge on the area and maintain a healthy upgrading of the identified areas;
- an impetus is given to market the green-space psycho/socio/physico effects have on • society; and
- a hi-end technological product is developed to create a 3D model of the areas for virtual interactive social interactionism.

Conclusion

Understanding virtuality for non-technics is not an easy concept and this paper sought to understand those theoretical and technological issues impinging on the implementation of a project that would attempt to analyse the relationships between real society, virtuality and the inherent social interactionism. The starting point where participants were asked to identify a known space was used as the fulcrum to understand current realities as well as to draft a plan of action to further study the mental perceptions of space through the input of psychologists, sociologist, technologists and futurists. This is only the first step towards realisation of a long-term study that will attempt to understand the neo-society, even as it is evolving at a rapid rate. The interactions across the generations is even more vital if society aims to preserve some semblance of the past through the older generation's knowledge, which worlds pose as a grounding zone for today's younger and the subsequent future generations.

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