

Spatial Knowledge and Information CANADA:

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Abstract

Title: “Geo-Spatial Data, GIS and Mapping as a Legal Tool.”

The research looks at land and property law in the Ottawa valley and surrounding areas. Utilizing the critical research methodology, *Critical Legal Geography*, I interrogate the intersection between law, mapping and the physical space. Specially, this research considers the role of *geographical information systems* (GIS) in the legal regulation of land and property.

The research question is: *How have centralized mapping and digital mapping, including agreed upon GIS contributions, been included in or affected the Algonquin land claim over the Ottawa valley?*

The dynamics of property regulation, is informed by mapped knowledge of those lands, whether it be government collected data, or local knowledge. *Critical Legal Geography* would ask us to interrogate what knowledge is referenced in laws pertaining to land, and in turn how the land is reflected in the laws. Understanding this question in the context of the visual representation of data in GIS, particularly digital geo-spatial techniques, provides us with a tangible way of understanding law as linked to its physical space because the mapped information explicitly represents various information. The role GIS information plays in our knowledge of the land, and furthermore how that knowledge informs laws regulation of the same is particularly apt in relation to the Algonquin land claim over the Ottawa valley. The legal claims and land negotiations are organized around mapped information of the Ottawa valley, including the Ottawa down town core, and sites of national and municipal importance such as Parliament hill or Lansdowne Park. As well the claim includes mapped information about deer hunting and migratory patterns in national parks. Within these areas, knowledge of, everyday use and access to the land varies significantly. If the legal process controls and regulates individual access to land; what is the role of GIS information and mapped representations of a city area in defining the land area?

Background and Relevance

This research is at the cusp of geo-data, geo-spatial techniques and mapping; and the law. My perspective is legal. With the legal perspective, my starting point is critical legal analysis (Hunt, 1986). A critical legal study questions the role of the law in perpetuating and instigating inequalities. These inequalities may arise in terms of individuals’ treatment by the judiciary, or their ability to access legal aid, to name just a few.

A specific branch of methodology within critical studies is *critical legal geography* (hereafter *CLG*) (Osofsky, 2011-2012, page 1239; Delaney, 2010; Blomley, 1994; Blomley,

Delaney & Ford, 2001; Blandy & Sibley, 2010). *CLG* seeks to enrich our understanding of the multitude of ways in which the law can perpetuate inequality through its manifestation in our lives. *CLG* looks at the role of the law in creating our lived spaces; so too it looks at the manner in which the physical places create the law (Blomley 1994: 46). A critical point made by *CLG* is that the law does not act as a separate institution, but instead is reflective of our lived spaces. Furthermore, those laws are created by society which uses places in specific and everyday ways. *CLG*'s focus on the lived experience and creation of law necessitates that we situate our understanding in everyday happenings. This means looking at the sites of law such as municipal law and areas of law which touch upon everyday life.¹ I intend to explore this geographic, or the spatial element of the law.

Though space is a central component to laws everyday happenings, the spatial awareness of the law is minimal (Delaney, 2010). *CLG* scholars have sought to overcome this lack of awareness, and by grounding the law in its surroundings. I propose that mapping as a visual tool is essential to this process. Furthermore, if the focus of *CLG* is concerned with the actualization of lived spaces and actualization of the law, we can understand mapping and *GIS* as essential to a visualization of the law.

As a case study the Algonquin land claim is a resource rich topic for increasing our understanding of the role of GIS and mapped information in informing the legal process. Most immediately this is because the land claim involves areas of various land types and competing uses. The legal documents agreed upon include mapped areas and information about land use. In fact the starting point for the land claim has been to collect information about land ownership of every acre of land in the claim catchment area, and to then plot that information on maps which will be utilized in legal negotiations moving forward. The centrality of GIS information and mapped representation of the same to this land claim case provides an opportunity to interrogate the role of GIS in the law.

With this background, we arrive at the larger project research questions about what GIS, and digital & traditional mapping techniques can reveal about law, and specifically how the realization of land and property ownership in the Algonquin land claim area can be better informed through critical understandings of these processes. The fluidity, depth and richness, of geo-data and digital mapping techniques provide us with an interesting entry point to answer these questions (P2p Foundation, 2009).

For the purposes of this presentation I would like to explore the following research question: *How have centralized mapping and digital mapping, including agreed upon GIS contributions, been included in or affected the Algonquin land claim over the Ottawa valley?*

The research question becomes pertinent when we consider the types of GIS data which have been utilized in the various mapped land claims area. Some areas in the land claim are in urban centres and the downtown core, and in these areas geo-data of land use is more prevalent, particularly for areas of importance for the municipal government. A case study example of this is the re-development of Lansdowne Park, a former sports facility, which has been at the centre

¹ This may include social security issues, local distribution of resources.

of regeneration initiatives in recent years. The process of regeneration has meant multiple consultations with private property owners living in the vicinity of the area, detailed urban planning documents being presented to city council and now the area is included in the catchment area of the Algonquin land claim. This is contrasted with GIS information about private properties such as cottages, which is dependent upon traditional property titling, and largely does not involve the collection of geo-data, or wider dissemination or input from individuals.

That law regulates property and land use in specific geographic locations is not a new observation, however, the role of geo-data in staking out a claim area and how that contributes to the legal claims process remains to be interrogated. Within the larger area of critical scholarship and spatial awareness, we are able to understand the ways in which the law is experienced in the municipal and community level. It is anticipated that these research questions about the connection between data, mapped information, the law and property regulation, will benefit from considerations of GIS and the modern digital mapping processes which have led to an enrichment of mapped representations of spaces (P2p Foundation, 2009; Elwood, S., 2008; Geomatics and Cartographic Research Centre, 2012).

Methods and Data

In order to look at the intersections between GIScience and law, the focus will be to understand geographical information systems as an active component in the actualization of law. The research methods that I will use to do this will be primarily legal. Legal research will take the form of firstly surveying the relevant law pertaining to land use and ownership. In particular the research will have to clarify the jurisdictions which regulate land, be it federal, provincial, or at the hyper local municipal level. I will look at the various legal regulations which exist over an area, including provincial law pertaining to property; municipal laws pertaining to property development; city processes for consultation for property development; and information about the Algonquin land claim over these areas.

Secondly, I will survey material which looks at the geographic elements of the research. This material is in the form of GIS and mapped information about the Ottawa valley and Algonquin land claim area. The Ontario government has listed all relevant mapped information which the federal, provincial and Algonquin First Nation representatives have agreed upon. These maps are available in online form. More detailed data about specific sites which are included in the land claim catchment area are available on various related online databases. In the example of Lansdowne Park, data about the Ottawa council consultation process and collated data are available on a dedicated website and also on the Government council website.

The utility of these information sources varies related to the information type. The various areas of the law will be used as a baseline against which the mapped information is assessed and compared. Some of the questions to be asked are whether the mapped information reflects the various areas of property law? Does the mapped information reflect the Algonquin First Nations land claim? Is information about local property development and municipal opinion

on the same, reflected in the mapped information about the land claim? If not, what does this mean for the experience of city areas, and also the realization of Aboriginal land rights?

Results

This research is underway and it does not as yet have results. The project will use both legal theory, and data pertaining to land and property regulation in the Ottawa valley. For the purposes of the conference presentation, Lansdowne Park provides a detailed case study to look at some of these issues in more detail. At this early stage it is difficult to say at what point data about an area (as seen in mapped information) is reflected in the legal outcomes of a case. It is hypothesized that there is little interaction between the municipal development of property, and federal Aboriginal land claims. This outcome is unfortunate and not a true reflection of the possibilities for incorporating local GIS information about an area, into legal claims over the same. At a later stage it is hoped that the project will benefit from geo-data as its source material.

Conclusions

This research is at the center of two areas of research- law and geography. By looking at the intersection of these two seemingly divergent areas it is believed that we will be closer to realizing one of the aims of CLG which is to understand the law in its lived environment. The orientation, spatial awareness, and ultimately connectedness of digital forms of GIS can provide the visualization of the law that is so often lacking.

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