

# Missionary networks and Korea: social network analysis and complexity science?

**Keywords:** exploratory, missionary, networks, borders, subsequent, penetrations, treaties, burgeoning, addressed, historiography, heuristic

## Introduction

This social network analysis (SNA) exploratory paper investigates Protestant missionary networks concerning Korea at the turn of the 20th century. Given the numerous major events in Korea's history (gross understatement) from the opening of its trade borders to Japan (1876) and subsequent Western penetrations (the 1882 "Shufeldt" and subsequent treaties) to the 21st century<sup>3</sup> there cannot be a direct connection regarding the growth of Protestant from the 1880s to the present. Nonetheless, something(s) or some person(s) fostered the burgeoning of Protestantism at the turn of the 20th century.<sup>4</sup>

There are three basic questions that will be addressed in this paper. First, what were the missionaries' social networks in Korea from 1868 to 1905? This can be visualized and specified via sociograms and SNA. Second, what contributions can SNA make regarding the historiography of these networks? SNA metrics may help qualify which missionaries or networks were "important." Third, how can the intersection of historiography and SNA be advanced? Can SNA, as a subset of complexity science (CS), be used with other subsets of CS to engage with historical documents, historians, social scientists? Accordingly, I will conclude this paper by framing SNA into a larger heuristic framework of complexity science (CS) in general—that is, a relationship between parts and wholes,<sup>1-35</sup> and four elements of CS in

<sup>1</sup>This paper was presented at the 25th Annual ASIA Network Conference, April 8th, 2017. The author would like to thank the co-panelists (X and Y) and the conference participants for their wonderful feedback. Of course, the author takes full responsibility for any errors in the paper.

<sup>2</sup>Those familiar with this phenomenon will recognize some (if not all) of the following representative names: Horace N. Allen, Henry G. Appenzeller, Mary and William Scranton, Horace G. Underwood, and Samuel A. Moffett. Korea continues to stand out regarding its Protestant-affiliation when compared to all of the other (South and East) Asian countries of the world. One may take for granted that South Korea's population is currently 25 percent Protestant-affiliated. Around two centuries ago Westerners in general and Christian missionaries and their respective religions in particular were not welcomed. In fact, open attacks on and decapitations of religious foreigners were not uncommon. The relatively short history of Protestantism in Korea is all the more contrasted when considering reverse missions. Not only are both the global de-Christianization of the West and the de-Europeanization of Christianity descriptive realities (Gordon Conwell's Center for the Study of Global Christianity, but currently Korean missionary outflows are greater than the respective Western missionary inflows. Accordingly, Rebecca Kim asked: "How did a small country where only 1 percent of the population was Protestant a century ago, become a Protestant powerhouse sending missionaries across the globe, including the United States?"

<sup>3</sup>For example, the CSGC report shows a jump of Christian growth by proportion from 1970 to 2020 from 18.3 to 36.1 per cent, respectively.

<sup>4</sup>See the Appendix for a brief overview of "Protestant developments in contexts."

<sup>5</sup>In no way is this paper intended to posit that SNA or CS "trumps" historiography. SNA and CS are merely another nuance of interpreting primary sources and an attempt to qualify and quantify "how important" certain actors (nodes) may have been in their respective networks.

Volume 2 Issue 6 - 2018

Henry H Kim

Department of Sociology, University of Wheaton College, USA

**Correspondence:** Henry H Kim, Department of Sociology, University of Wheaton College, 501 East College Avenue, Wheaton, IL, USA, Tel (630) 752-5226, Fax (630) 752-5294  
Email Henry.Kim@wheaton.edu

**Received:** March 09, 2018 | **Published:** December 10, 2018

particular:

- Self-organized criticality (phase transitions)
- Time series and bifurcations (Feigenbaum Constant)
- Fractal geometry (topographic explorations)
- Cellular automata

This paper does not claim that SNA or CS is a new panacea to trump traditional historiography. I merely want to suggest that perhaps, in light of the paucity of such an engagement, that it is academically worthwhile to entertain such an inquiry.

## SNA<sup>6</sup> and historiography

Although SNA has deep roots in sociology<sup>7</sup> it must also be contextualized within a field of CS sees below (Figure 1). Moon (2014:3) noted with respect to historiography: "Increasingly historians are using computer and quantitative methods to address questions in history."<sup>8</sup> Further, almost every discipline I can think of has some representative scholarship delving into SNA and CS.<sup>2-4</sup> Although an extensive literature review exists regarding the intersection of SNA and historiography,<sup>5,6</sup> most of the scholarship is skewed with references of the words "networks" or "social networks" and few employ the mathematical concepts or provide the metrics and sociograms of social network analysis. Accordingly, there are a few works that do employ historiography (well) with SNA elements well.<sup>6-10</sup> If the intersection of historiography and SNA is scarce in general, this crossover appears to be entirely absent with respect to Asian studies in particular.

<sup>6</sup>For an overview of the development of this methodology, cf. Linton C. Freeman, *The development of social network analysis: A study in the sociology of science*.

<sup>7</sup>Comte<sup>18</sup> originally depicted the field of "sociology" as "social physics" and see. According to Moon (2014:12): "The idea of *prosopography* in sociology was developed in the 1930s as the study.<sup>19-23</sup> of the interaction of a number of players in history. It also has roots in the nineteenth century through Francis Galton who used many biographies of British scientists to study heredity, environment and genius." Social anthropologists such as Elizabeth Bott<sup>24</sup> and Jacob Moreno<sup>25</sup> also delved into aspects of "prosopography" in their studies of kinships and visualized relationship via sociograms.

<sup>8</sup>For this paper, I used Excel to record the data, NodeXL to create sociograms, and NodeXL and Mathematica to calculate SNA metrics.

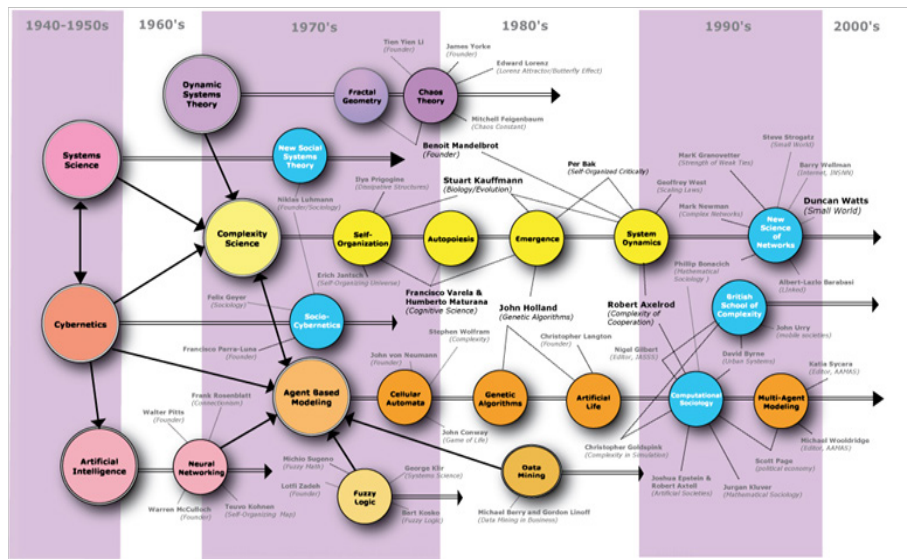


Figure 1 Although SNA has deep roots in sociology it must also be contextualized within a field of CS.

**SNA and particular missionaries in Korea**

Below is a chart of the ten primary sources I analyzed in this paper and a sociogram when combining all of the vertices and edges (Table 1 & Figure 2).<sup>9</sup>

Below are some of the delimited findings with specific SNA metrics (in-degrees, out-degrees, between centrality, and Page Rank) (Table 2).<sup>10, 11</sup>

If in-degrees represent an actor’s “prestige” or social status<sup>11,12</sup> and out-degrees represent an actor’s scope in a network,<sup>13</sup> then Allen is without equal and Appenzeller is a consistent (but distant) second (Table 3–5). Between centrality measures notes how many times a particular node is on the shortest path between any two given nodes in the network. Thus, Allen is on the shortest path between any given two nodes in this network 1,245,270 times (and Appenzeller score is 729,473). Finally, Page Rank employs the Google algorithm to ascertain weighted in-degrees (“backlinks”) in determining important web pages. Accordingly, if Allen and Appenzeller were web pages they would have dominated the internet traffic with respect to Protestant missionary networks in Korea during their respective timeframes. Thus, these four directed-graph measures demonstrated that my findings were consistent with other network research concerning a skew in the concentration of nodes.<sup>14,15</sup> The “importance” of Allen’s impetus in Korea was also consistent with

two other respective historiographic scholars.<sup>16,17</sup> Table 6 However, given the particular primary sources that were analyzed there is much room for integrating more missionary letters and thus re-calculating SNA metrics. Nonetheless, based on the data I was able to access, my SNA findings confirm and specify how “important” Allen and Appenzeller were regarding missionary networks. Currently my research has continued to move (slowly) towards CS. Let me quickly provide two charts of edges (ties) and vertices (nodes) that I used these data points in the subsequent SNA and CS discussions of this paper. Table 7 One book that I recently and randomly stumbled upon was by Moon who used historical data to test “models for innovation based on the growth of historical social networks.”<sup>12</sup> In evaluating eight different technological advances he posited that social networks grew via scale-free networks<sup>13</sup> in the form of power laws when mapping “important events” as a function of time. Accordingly, he claimed that “behind every new emergence of a technical product is a growing social network associated with that technology.” The notion that nodal growth can move from linear to non-linear or exponential patterns is not new. As a corollary, Zipf<sup>27</sup> discovery of power laws and word frequencies made such an impact on Benoit Mandelbrot<sup>28</sup> that the latter employed this scale-free logic in his dissertation; he would eventually become the father of another aspect of CS, fractal geometry. Fractal patterns have also been found in the growth of cities and respective infrastructure and the relationship between a single tree and the tree distributions within the respective forest based on “metabolism and allometry”. In examining the missionary sources for this paper, I wanted to test Moon’s power-law association with nodal growth. I did this by plotting both the growth of vertices and edges for each source and by combining all of the sources together. I plotted the data with “Year” on the horizontal axis and “Vertices” (vertices are also known as nodes which represent particular missionaries or

<sup>9</sup>According to Kang<sup>26</sup> From 1873 on, John Ross and his brother-in-law, John McIntyre, both Scottish Presbyterian missionaries, preached the gospel to Korean residents in the China-Korea border region.

I have tried to categorize persons with their respective social spheres: FM=Field Missionary Actor, MA= Missionary Administrator Actor, P=Political Actor and B=Business Actor.

<sup>10</sup>Between ness Centrality measures were rounded up to the nearest whole number.

<sup>11</sup>To be honest, this author had a hard time in ascertaining how the “number of events” was selected as a function of time. I wondered if there was a data selection bias to fit the theory; nonetheless Moon does provide an interesting heuristic with respect to time, nodes, and “innovation.”

<sup>12</sup>Scale-free networks have been evinced via SNA.<sup>19,30</sup>

<sup>13</sup>For example, although one can make a claim that IBM fostered the persecution of Jews by their patents on punch cards and readers and provided the technology for Mandelbrot<sup>28</sup> to discover fractals, Ron Eglash (1999) makes a case that this mathematical concept existed in various African countries well before the existence of IBM.



**Table 2** Top 10 In-Degrees (1868-1905)

Actor	In-Degrees	Actor Type <sup>j</sup>
HN Allen	211	FM/P
HG Appenzeller	28	FM
W Wright	14	MA
FF Ellinwood	13	MA
Thomas F Bayard	13	P
John Hay	8	P
HG Underwood	8	FM
Alex Kenmure	7	MA
James G Blaine	7	P
Henry Loomis	6	MA

**Table 3** Top 10 Out-Degrees (1868-1905)

Actor	Out-Degrees	Actor Type
HN Allen	568	FM/P
HG Appenzeller	340	FM
HG Underwood	15	FM
Alex Kenmure	12	MA
S Moffett	11	FM
Ella Appenzeller	11	FM
John MB Sill	9	P
Sally Sill	7	P (Relative)
Gordon Paddock	6	P
DW Deshler	5	B

**Table 4** Top 10 Between ness Centrality (1868-1905)

Actor	Between centrality <sup>k</sup>	Actor Type
HN Allen	1,245,270	FM/P
HG Appenzeller	729,473	FM
HG Underwood	42,479	FM
Alex Kenmure	41,947	MA
W Wright	36,663	MA
S Moffett	33,724	FM
FF Ellinwood	32,464	MA
WB Scranton	27,711	FM
Thomas F Bayard	25,271	P
Ella Appenzeller	21,673	FM

**Table 5** Top 10 Page Rank

Actor	Page Rank	Actor Type
HN Allen	303.5635	FM/P
HG Appenzeller	155.758	FM
HG Underwood	8.187766	FM
Alex Kenmure	6.978749	MA
FF Ellinwood	6.037348	MA
S Moffett	5.93337	FM
W Wright	5.632819	MA
Ella Appenzeller	5.286218	FM
Thomas F Bayard	5.011814	P
John MB Sill	4.005829	P

### Conclusion and SNA and other employable tools of CS

This paper provided a particular case study of selected missionary primary sources and the development of Protestantism in Korea at the turn of the 20th century. As noted earlier, SNA is part of a larger framework of CS; SNA is a part of the whole. For example, using weather forecasting as an illustration of parts, feedback interdependency, and wholeness, “the nature of weather forecasting is such that forecasts extending three days or more into the future require an accurate knowledge of conditions over the whole of the Earth at any one time, including knowledge of sea-surface temperatures”.<sup>29</sup> SNA and CS are not “new” per se but the “newness” stems from requisite technology to crunch the (large amounts of) data and ascertain the formation of patterns.<sup>14</sup> In concluding this paper, please allow me to make a small divergence and comment on some historiographic possibilities regarding SNA and four other elements of CS. As noted, though my data does not match a power law with respect to nodal growth, there are several other aspects of CS that should be considered for further investigation. First, as noted by Per Bak’s (1996) theoretical experiments of self-organized criticality (see image below), is there a tipping point regarding the “explosion” of social networks once a threshold is crossed? Figure 3 Is there some metric – or a Feigenbaum Constant–that evinces an equilibrium point between the “edge of chaos” or phase transitions? For example, Moon (2014:29) noted: “The appellation ‘criticality’ refers to the possibility that the system will experience a significant event such as an earthquake or an avalanche in a sand pile. ‘Self-organized’ implies that after such an event, the system resets itself to eventually trigger another event. The system is said to be on the edge between order (no significant events) and chaos (unpredictability of events).” Second, clearly time-series should be considered when mapping social relations which are inherently dynamic. In fact, positive feedback loops and time series have been known to evince “chaos” even within a (mathematical) closed system. The classic bifurcation chart  $f(x) = r x(1-x)$  where  $0 < r < 4$  and  $0 < x < 1$  shows that there are only three outcomes based on the initial “r” value, a fixed point, bifurcations, or a chaotic region. And yet within this apparent disorder there a beautiful order exists

<sup>14</sup>Assign each corner of the equilateral triangle 1-2, 3-4, and 5-6. Starting in any area of the triangle, roll the die and based on the outcome, move to the midpoint of the pre-assigned corner and mark that point, roll the die and mark the next midpoint and repeat.

known as the Feigenbaum Constant. Is there such a constant within social networks? Figure 4 & Figure 5 Third, if networks are scale-free via time what about in space? Fractal geometry is another rubric within CS and perhaps there is room for topographical explorations, networks, and historiography. “Recently these power law relationships have been found in the statistics of modern social networks.<sup>31</sup> In the case of population of cities, this law says that there is no average city. There are a few large cities, a greater number of moderate cities and many smaller cities. This can be seen for the largest US cities in

1900.... What is surprising is that this same power law type relation holds for the ranking of US automobile makers in the early years of the industry....” Though I am personally fascinated with chaos and fractal patterns (a nuance between time order and spatial dimensions), I completely agree with Castellani and Hafferty (2009:19): “chaos theory and fractal geometry do inform complexity science. Still, while these two areas of study are part of the mathematics of complexity, they are not complexity science”.

**Table 6** Unique Edges

Time	Year	All	Allen	Ross	Loomis	Kenm	Appzellerr	Sill	Moffett	Nursin	Underwood
1	1868-1878	3							3		
2	1868-1880	6		3							
3	1868-1881	6		3							
4	1868-1882	8		4				4			
5	1868-1883	10		4	2						
6	1868-1884	15	3	4	2		2				
7	1868-1885	58	9	4	2		38				1
8	1868-1886	147	58		2		76				3
9	1868-1887	185	80	6	3		87				5
10	1868-1888	226	111	6	6		92				7
11	1868-1889	319	155	6	7		137		7		7
12	1868-1890	333	159	8	9		138		11		8
13	1868-1891	345	164	8	9		143		12		9
14	1868-1892	361	172		10		144		17		10
15	1868-1893	375	174	10	12		145		20		14
16	1868-1894	425	179	20	12		156	16		8	14
17	1868-1895	471	180	21	12		198	18			14
18	1868-1896	536	220	21			221	19			15
19	1868-1897	629	295		13		232	19		14	15
20	1868-1898	698	330		13		264			16	15
21	1868-1899	721	347		17		266				15
22	1868-1900	855	432		17	10	304				16
23	1868-1901	997	491		17	10	385			17	17
24	1868-1902	1047	537				388				18
25	1868-1903	1109	592		17	12					23
26	1868-1904	1221	698		17	15					26
27	1868-1905	1339	808		17	21					28
28	1868-1906	1360	828		17						29
29	1868-1906	1364	830		17						31
30	1868-1907	1370	834		19						31
31	1868-1908	1391	851		19						35
32	1868-1910	1394	852								37

**Table 7** Unique vertices

Time	Year	All	Allen	Ross	Loomis	Kenm	Appezeller	Sill	Moffett	Nursing	Underwood
1	1868-1878	5							5		
2	1868-1880	9		4							
3	1868-1881	9		4							
4	1868-1882	12		5					7		
5	1868-1883	15		5	3						
6	1868-1884	23	4	5	3		4				
7	1868-1885	65	10	5	3		38				2
8	1868-1886	154	59		3		75				5
9	1868-1887	192	81	7	4		86				7
10	1868-1888	231	112	7	5		91				9
11	1868-1889	322	154	7	6		135		11		9
12	1868-1890	336	158	9	8		136		15		10
13	1868-1891	347	163	9	8		141		15		11
14	1868-1892	361	169		10		142		19		12
15	1868-1893	374	171	12	11		143		22		15
16	1868-1894	420	176	19	11		154	11		12	15
17	1868-1895	466	181	20	11		194	11			15
18	1868-1896	531	219	20			219	11			17
19	1868-1897	607	280		12		231	11		14	17
20	1868-1898	672	313		12		261			16	17
21	1868-1899	694	330		16		262				17
22	1868-1900	818	402		16	13	300				18
23	1868-1901	948	447		16	13	383			17	19
24	1868-1902	990	485				386				20
25	1868-1903	1049	538		16	15					24
26	1868-1904	1148	633		16	17					26
27	1868-1905	1240	717		16	23					28
28	1868-1906	1256	732		16						29
29	1868-1906	1260	734		17						30
30	1868-1907	1263	737		17						30
31	1868-1908	1282	752		17						34
32	1868-1910	1285	753								36

Fourth and finally, Cellular Automata evinces that a set of simple rules fosters various (and sometimes very complex) outcomes. My personal favorite is the Sierpinski Triangle and there are at least three different ways to create this aesthetic wonder (Figure 6). There are multiple ways to make this triangle (iterations via: Rule 90, rolling a die,<sup>15</sup> or cutting the middle of an equilateral triangle). And then I found that there were other CA rules that created this exact output (Rules 18, 22, 26, 82, 146, 154, 210, and 217). I was humbled in exploring these

closed systems. In sum, the bifurcation chart shows that even with full knowledge of the starting conditions, once one enters a bifurcated or chaotic region one cannot predict with certainty a particular point in time (cf. the Heisenberg Principle of Uncertainty). The Sierpinski Triangle shows that even with a known outcome one cannot be sure which starting conditions led to the outcome. Self-organized criticality points to a point of phase transition where disorder can suddenly shift to equilibrium (or vice versa—hence “the edge of chaos” as in: ice-water-steam). If there is unpredictability within a closed system, how

<sup>15</sup><http://www.economist.com/blogs/economist-explains/2014/08/economist-explains-6>

much more is it challenging to make inferences concerning open systems of human relationships? This is humbling as a social scientist who tries to look at historical data and make inferences. Not just understand—make inferences. I hoped this heuristic paper has allowed readers and respective scholars to have a better understanding of the interplay between historiography, SNA, and CS as we continue to research and teach about Asian societies and cultures (Appendix).

S.A. Moffett, one of the earliest American Protestant missionaries in Korea. Yet it is not only religious scholars who have noted Korea’s Protestant affiliation. For example, recently The Economist published an article titled, “The Economist explains Why South Korea is so distinctively Christian: Asia is mostly stony ground for Christianity—except in Korea. Why?”<sup>16</sup>



Figure 3 theoretical experiments of self-organized criticality.

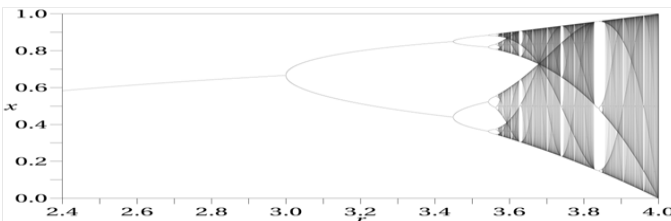


Figure 4 Bifurcation diagram is there such a constant within social networks.

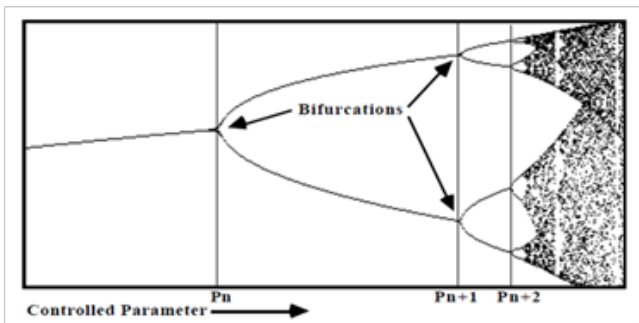


Figure 5 Fractal geometry is another rubric within CS and perhaps there is room for topographical explorations, networks, and historiography.

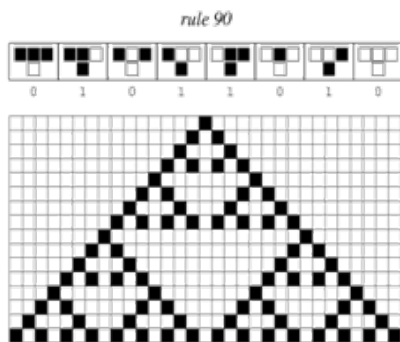
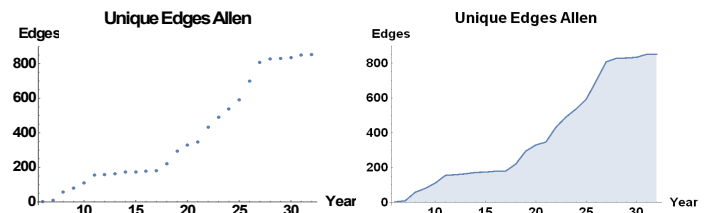
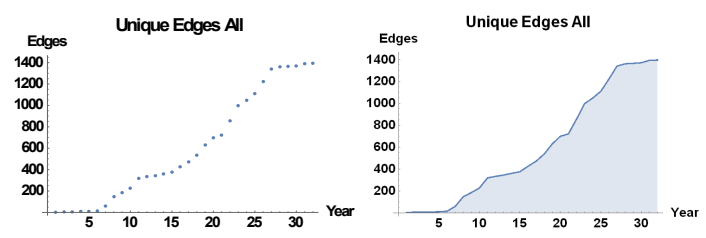
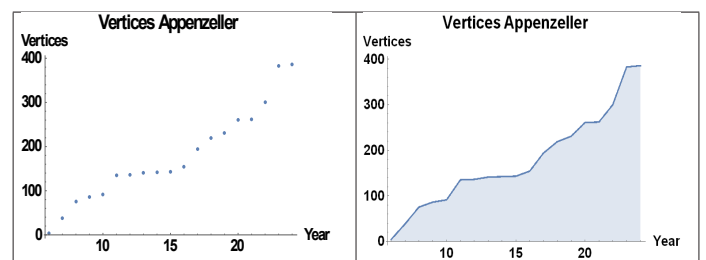
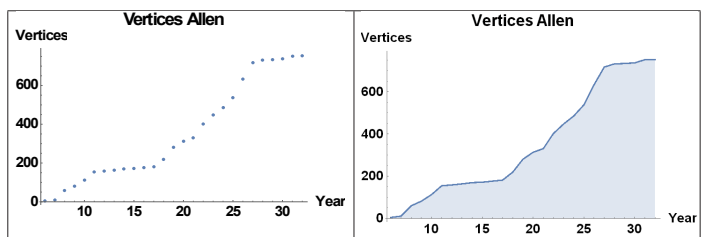
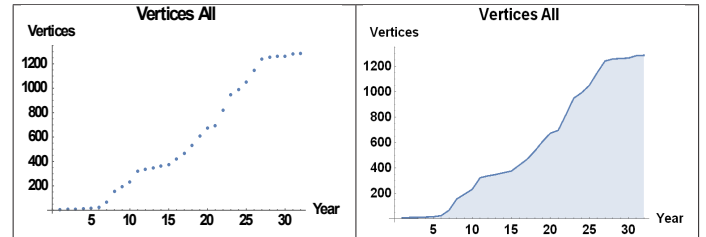
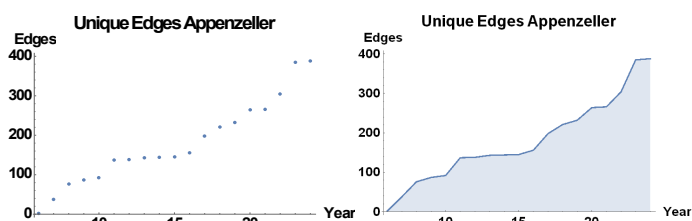


Figure 6 There are multiple ways to make this triangle.

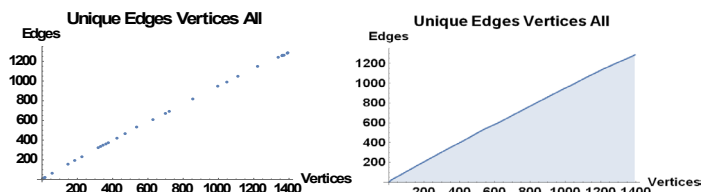
It is also interesting to note that Sunquist dedicated his book, *The unexpected Christian century: The reversal and transformation of global Christianity, 1900-2000*, to S.H. Moffett; he was the son of



<sup>16</sup>The former posited that religion pacified proletariats under capitalism and also gave a false euphoria because species-being could only be attained via matter. The latter theorized how religious values (ideas) in the form of Protestantism could help foster the burgeoning of a new means of production, capitalism.



**Graph 1** the graph on the left provides the actual data points and the graph on the right connects the actual data points to create a continuous graph.



**Graph 2** I ran one more test, with edges on the vertical axis and vertices on the horizontal axis, to ascertain if a power law existed.

**Appendix 1** regarding global missionaries and diaspora populations (CSGC 2013:76 and 83) to help visualize the reversals: Missionaries sent 2010

Most sent in total #s	Most sent per million
1 United States 127,000	1 Palestine 3,401
2 Brazil 34,000	2 Ireland 2,131
3 France 21,000	3 Malta 1,994
4 Spain 21,000	4 Samoa 1,802
5 Italy 20,000	5 South Korea 1,014
6 South Korea 20,000	6 Belgium 872
7 United Kingdom 15,000	7 Singapore 815
8 Germany 14,000	8 Tonga 619
9 India 10,000	9 United States 614
10 Canada 8,500	10 Netherlands 602

**Appendix 2** regarding global missionaries and diaspora populations (CSGC 2013:76 and 83) to help visualize the reversals: Top 10 Diasporas by source country

Source country	Diaspora	Christians	Muslims	Hindus	Buddhists
Mexico	137,751,000	132,959,000	2,100	6,500	0
Bangladesh	87,873,000	446,000	24,728,000	60,785,000	0
Argentina	68,156,000	60,574,000	0	2,800	0
China	60,580,000	7,095,000	571,000	0	15,717,000
India	41,319,000	2,716,000	22,099,000	14,289,000	0
South Korea	30,453,000	3,245,000	310	0	0
Russia	24,063,000	15,646,000	2,618,000	0	0
Pakistan	22,055,000	52,200	19,026,000	2,909,000	0
United States	18,267,000	14,396,000	216,000	0	0

### Protestant developments in contexts

Whether one purports that religion serves as a Marxian opiate or a Weberian stimulant concerning social change,<sup>17</sup> any discussion of the development of Protestantism in Korea must acknowledge a social-religious continuum. There is no shortage of explications (particularly from the missionaries' and their sending agencies' perspectives) that it was "God alone" Who enabled Korea to receive Jesus Christ as her personal Lord and Savior. Perhaps one of the most often cited religious explications for Korea's spiritual growth is attributed to the "Nevius Method".<sup>32-34</sup> However, since the "spiritual impetus" is not the focus of this paper and I have already teased out the respective nuances in a prior (historical theology) dissertation<sup>35,18</sup> I merely note this particular bookend. At the other extreme of the continuum of (perhaps in diametric opposition to) "spiritual forces" is any combination of militaristic (gunboat diplomacy), political (territorial hegemony) and commercial factors (expansionism and the necessity to open new markets).<sup>19</sup> Two representative historians who do not deny religious elements per se but would emphasize expansionism are Fred Harrington<sup>26,20</sup> regarding concessions in general and through Allen (and respective networks) in particular and Wayne Patterson<sup>27,21</sup> regarding Korean emigration to Hawaii in general and through Allen (and respective networks) in particular. Whereas the former emphasized the role of concessions in Korea and the latter emphasized the role of land and labor concerning

<sup>17</sup>Further, the coup d'état on December 4<sup>th</sup>, 1884, the injury to Prince Min, and the medical intervention of Dr. Horace N. Allen is so well known that this event has gained legendary status in Korea's history of Protestant missionaries.

<sup>18</sup>For example, Shufeldt<sup>36</sup> wrote a few years prior to the 1882 Korean-American Treaty of Amity and Commerce: "At least one-third of our mechanical and agricultural products are now in excess of our own wants, and we must export these products or deport the people who are creating them. It is a question of starving millions."

<sup>19</sup>Harrington<sup>25</sup> noted: "Allen could not claim to be a great man or an altogether noble one; but he lived in the midst of great events and left his mark upon the times. ... Through those years [1884 to 1905] he helped in the development of American interests in the Far East. There was a religious interest – Allen was the first Protestant missionary to reside in the kingdom of Korea. There was an economic interest – the doctor obtained for American business men the best of the franchises granted in the Land of the Morning Calm. There was interest in the future of Chosen. ..." According to Kang:<sup>22</sup> "In the summer of 1888, Allen succeeded in forming a syndicate which included some of America's leading capitalists of the day. One of them was W.T. Pierce, who wanted to establish a gold mill. ... W.T. Pierce went on to develop the most modern mechanized gold mine in Korea."

<sup>20</sup>Patterson<sup>26</sup> noted: "These considerations [by the Hawaiian Sugar Planters' Association in 1896] of the supply, quality, composition, and price of labor are what initially led the planters to think about using Koreans to replace the Chinese as an offset to the Japanese. For the next six years, from 1896 to 1902, these considerations grew, particularly after annexation in 1896, making the perceived need for Koreans even more urgent. Thus when the American minister to Korea, Horace Allen, stopped in Honolulu on his way to Korea after home leave in the spring of 1902, the planters took advantage of this to discuss the feasibility of bringing Koreans to Hawai'i. Allen promised the planters that he would help them get Korean workers."

<sup>21</sup>Allen was a central node regarding the Sandwich Islands through his connections with American missionaries in Korea and Hawaii, the Korean King, and David Deshler, step-son of Governor Nash of Ohio, who was a good friend of (President) McKinley. Patterson<sup>26</sup> provides evidence that Allen was a key node connecting the HSPA, Deshler, Korean and U.S. officials, and missionaries. Harrington<sup>25</sup> cites various sources from the Allen MSS to nuance a quid pro quo relationship between Allen and Deshler: "A native of Ohio, Deshler became a close friend of the Allens, helped them get promotion and was helped in turn. His interests were broad, but in due time he concentrated on steam and navigation and on shipping Korean laborers to the Hawaiian sugar fields. His work was applauded and approved by Allen."



sugar, in both scenarios American Protestant missionaries had a role in promoting American interests. Further, both Harrington and Patterson marshal historiographic evidence that Allen was a key hub that connected commercial, religious, and political interests between the U.S., Korea, and Hawaii.<sup>22</sup> Finally, as most social-material relation changes occur within interplay of structure, agency, and contingency<sup>23</sup> from the Korean's perspective (agency) they may have been motivated to convert to Protestantism for purely religious motives and or via reactive ethnicity; self-identifying not only "what I am but also what I am not." That is, adopting Protestantism as a Western religion may have not only symbolized the adoption of "progress" but it may have also symbolized a rejection of the "antiquity" of China (and Japan).<sup>24</sup>

## Acknowledgments

None.

## Conflicts of interest

The author declares there is no conflict of interest.

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<sup>22</sup>Obviously one must begin to think of complexity science at this juncture.

<sup>23</sup>Social functions and boundary demarcations via religious praxis are obviously not new ideas and reactive ethnicity via religion has also been well noted among Korean immigrants in the U.S.<sup>37,38</sup>

<sup>24</sup>Xwestern religion may have not only symbolized the adoption of "progress" but it may have also symbolized a rejection of the "antiquity" of China.