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**FROM CASTALIA TO WIKIPEDIA:
OPENNESS AND CLOSURE IN KNOWLEDGE COMMUNITIES**

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In recent years, ‘openness’ has emerged as a key theme in discussions of education, scholarly communication and social life. Much has been written about open access publishing, open peer review, open source software, open education, open science, and open government. In this diverse, expansive body of work, reference has been made to academic books and articles, policy documents, reports, newspaper and magazine items, and a variety of web-based sources. Most of the materials on which discourses of openness have been based have been non-fictional. There is value, however, when contemplating the meaning of openness, its limits and its educational significance, in also turning to other forms of writing. Among the alternatives is imaginative literature, and of the novels that might be considered when addressing the idea of openness, particularly as this applies to knowledge communities, none is more helpful than Hermann Hesse’s *The Glass Bead Game* (Hesse, 2000).

The Glass Bead Game, first published in 1943, was the crowning achievement of Hesse’s long writing career and earned him the Nobel Prize for literature in 1946. The book has a three-part structure. The first section provides a ‘General Introduction’ to the

Glass Bead Game, as this has evolved through history, to its present development in Castalia, a fictional ‘pedagogical province’ of the future. The second part details the educational experiences of Joseph Knecht, who grows up in Castalia, eventually mastering the Glass Bead Game and attaining the exalted position of Magister Ludi (Master of the Game). Knecht’s responsibilities as Magister Ludi are onerous but he distinguishes himself in the role, taking the Game to new heights. As the years pass, however, he becomes increasingly uneasy with the closed nature of Castalian society. He seeks to persuade other senior Castalian figures of the need for a more open approach to knowledge, education and social organisation, but he is unsuccessful in his efforts. He takes the extraordinary step of resigning as Magister Ludi, leaves Castalia, and starts out on a new life as a tutor of the son of an old friend. This fresh beginning is cut short in a dramatic and tragic way with his sudden drowning in a mountain lake. The third part of the book includes a set of poems, together with three fictional ‘Lives’, all of which are presented as the posthumously published writings of Joseph Knecht.

This paper addresses the themes of openness and closure in Hesse’s novel by way of a comparison with a contemporary cyberspatial knowledge community: the world of Wikipedia. Launched in 2001, Wikipedia is the best known initiative of the Wikimedia Foundation, a not-for-profit organisation, the aim of which is ‘to provide easy access to information for people all over the world—free of charge and free of advertising’. Wikipedia is now ‘the world’s largest and most popular encyclopedia’ (Wikimedia Foundation, 2010). Wikipedia is a global phenomenon; one of the most popular sites on the Internet, visited by nearly 400 million people every month. It is created and published online by volunteers who write and edit the entries. Anyone with access to the

Internet can contribute. Wikipedia has around three-and-a-half million articles and more than twenty million pages in total (Wikipedia, 2010a). It has been described as ‘the largest collection of shared knowledge in human history’, and the people who support it have been seen as ‘united by their love of learning, their intellectual curiosity, and their awareness that we know much more together, than any of us does alone’ (Wikimedia Foundation, 2010).

The first part of the paper discusses the concept of the Glass Bead Game, as described by Hesse’s narrator, and identifies some of key moments in the educational life of Joseph Knecht. The second section sketches some of the defining features of Wikipedia, concentrating on the nature of the knowledge creation process, the ethos underpinning it, and the forms of participation enabled by it. The final part of the paper compares the world of Hesse’s *Castalia* with the rapidly evolving reality of Wikipedia and considers what these two examples of knowledge communities might have to teach us about openness and closure.

An Ideal Knowledge Community? *Castalia* and the Glass Bead Game

The first part of Hesse’s classic novel provides a rich description of the evolution of the Glass Bead Game. This is a fictional account, of course, but the concept of the Game has relevance to contemporary discussions of open knowledge systems and open education. In his General Introduction, the narrator suggests that the idea behind the Game has always been present in human history, and was evident in ancient cultures in both the East and the West. The notion of bringing together the arts, sciences and religion, and of

creating a universal language for communicating between them, lies at the heart of the Game in its various forms. At first it was literally Glass Beads that were employed by participants but as the Game evolved, particularly through mathematics and music, it became more abstract. The development of symbols that enabled connections to be drawn between different disciplines and traditions was accompanied by a growing recognition of the importance of inner harmony, concentration and awareness in playing the Game. With the addition of this contemplative element, the Game emerged as the supreme form of cultural engagement. Castalia, a dedicated knowledge community, grew from the ruins of the 20th century and became the home of the Game.

The narrator is vague about the rules of the Game. Indeed, he claims that it would be impossible to write a textbook on it; the only way to learn the rules of this ‘Game of games’ is to ‘take the usual prescribed course, which requires many years; and none of the initiates could ever possibly have any interest in making these rules easier to learn’ (Hesse, 2000, p. 6). Those who withstand the rigours of this prolonged process of initiation and become adept at the Game are revered. Castalia is very much a hierarchical society, led by a small group of Masters, one of whom is the Magister Ludi. Castalia’s residents are largely separated from the rest of the world. They own little property and there is no need for money. They do not marry or raise children. Expressions of excessive individuality are frowned upon; anonymity is valued and it is expected that there will be ‘maximum integration of the individual into the hierarchy of the educators and scholars’ (p. 3). Castalia has its own education system, administered by a Board of Educators. There are schools of various types and ample opportunities, for the best

students at least, for more specialised post-school study. Even when students are studying other subjects, they will often devote long additional hours to the Game.

The Game is a means for establishing connections between scholarly disciplines. Through the use of a 'kind of highly developed secret language' (p. 6), the Game allows participants to play with all the arts and sciences, all the values, of a culture. An accomplished Glass Bead Game exponent plays with the vast body of knowledge and values in much the same way as an organist plays an organ. The manuals and pedals of the Game range across the 'entire intellectual cosmos'; potentially, 'this instrument is capable of reproducing in the Game the entire intellectual content of the universe' (p. 7). The manuals, pedals and stops are now fixed. Changes in their number and order may be possible in theory but '[a]ny enrichment of the language of the Game by the addition of new contents is subject to the strictest conceivable control by the directorate of the Game' (p. 7). Within this fixed structure, however, 'a whole universe of possibilities and combinations is available to the individual player':

For even two out of a thousand stringently played Games to resemble each other more than superficially is hardly possible. Even if it should so happen that two players by chance were to choose precisely the same small assortment of themes for the content of their Game, these two Games could present an entirely different appearance and run an entirely different course, depending on the qualities of mind, character, mood, and virtuosity of the players. (p. 7)

The reference to an 'organ' is, the narrator makes clear, an image only. The Game, in its contemporary Castalian form, is played in the realm of thought. As such, it represents the culmination of many centuries of development, progressing from the more concrete to the more symbolic, from the intellect only to the broader development of a state of pure conscious being. Those who belong to the Order of the Glass Bead Game are devoted to the pursuit of perfection through knowledge, and Castalia, so its residents believe, provides the ideal form of social organisation for such a goal to be realised.

All is not as rosy as this portrait would suggest, however, and as readers move from the narrator's account of the game to the educational life of Joseph Knecht in the second and main part of the novel, it becomes clear why this is so. Knecht, we are told, may have lost his parents while he was still very young, or may have been removed from unfavourable home circumstances (p. 39). The precise details of his origins are unknown, but the main features of his educational life are conveyed in full. Joseph grows up in Castalia and is, from the beginning, an attentive, studious member of Castalian society. He has a profound admiration for the Music Master, who serves as an important mentor during his childhood and adolescence. Knecht excels in his studies, moving through the elite schools in Castalia to reach Waldzell, the home of the Glass Bead Game. There he encounters an outsider, Plinio Designori, who has been sent to Castalia by his family to experience the unique form of education offered by the pedagogical province. Plinio and Joseph engage in a series of lively debates, the former criticising the protected intellectual environment of Castalia, the latter defending it. After his period at Waldzell, Plinio returns to the outside world but he and Joseph become lifelong friends.

Knecht goes on from his Waldzell days to a sustained period of free study, immersing himself in the mysteries of the Game. As his development continues, his abilities are noticed by the Castalian hierarchy, and he is sent on a mission to a Benedictine order at Mariafels. There he comes into contact with Father Jacobus, a senior figure in the monastery, who, over time, teaches Joseph the value of history. This is a process of mutual learning, with Father Jacobus's initially jaundiced views of Castalian abstruseness gradually giving way, under the younger man's influence, to a more rounded appraisal of the strengths and weaknesses of the pedagogical province. Shortly after Joseph has completed his work in Mariafels, the Magister Ludi falls ill and dies. The process of selecting the new Master of the Glass Bead Game begins shortly thereafter, and to his surprise, Knecht is appointed to the position.

As Magister Ludi, he is faced with a daunting set of tasks. He has not just the role of preserving the Game in all its richness but also an imposing range of administrative duties. He must work adroitly with others to draw out their best qualities and to minimise unhelpful tensions. He upholds these responsibilities with distinction, but as the years go by he becomes increasingly concerned about the nature of Castalian life. Questions that had first been raised in his youthful debates with Plinio, and doubts that had always been present but not to the fore, begin to thrust themselves forward more prominently. Eventually, he makes the decision to seek the Board of Educators' approval to leave the Order. This extraordinary step – not only resigning from a position at the very top of Castalian society but proposing to depart from Castalia altogether – is viewed unsympathetically by his fellow Masters, despite Knecht's presentation of a lengthy letter setting out the reasons for his decision. Knecht departs without the blessing of his

colleagues, beginning a new life as a tutor of Tito, Plinio's son. Joseph's work with Tito has barely begun, however, when he dies suddenly, drowning while swimming with his young charge in a mountain lake.

The Wikipedia Phenomenon

From Hesse's *Castalia*, we turn now to a contemporary knowledge community: one devoted to the ideals of openness, participation and consensus, and made possible by the wonders of 21st century networked computing. On its own website, Wikipedia is described as a 'multilingual, web-based, free-content encyclopedia project based on an openly-editable model' (Wikipedia, 2010a). Founded by Jimmy Wales, the name 'Wikipedia' derives from the Hawaiian word 'wiki', meaning 'quick', and the traditional concept of an encyclopedia. In less than a decade, Wikipedia has grown extremely rapidly. It is not the only encyclopedia available via the Internet but it is by far the most popular. It has, moreover, changed our view of what an encyclopedia can be. As Oblinger and Lombardi (2008) observe, Wikipedia is '[m]ore a community than an "encyclopedia" in any conventional sense' (p. 392). In the US, Wikipedia ranks among the top five of all websites. Using the most successful website of all, the search engine at Google.com, it does not take long to find out how dominant Wikipedia has become in directing browsers to its pages. Type in the name of just about any well-known historical or intellectual figure, any significant event, any subject of study, and a Wikipedia entry is likely to appear among the first websites listed in the search results.

Wikipedia is available in numerous languages and is part of a family of related projects under the Wikimedia Foundation umbrella. These include Wikibooks (dedicated to providing free textbooks), Wikinews (a citizen-based news service), Wiktionary (a multilingual dictionary/thesaurus), Wikiquote (a ‘collection of quotations’), Wikispecies (a ‘directory of life on earth’) and Wikimedia Commons (a ‘media repository containing more than 7,100,000 freely usable images, videos, and sound files’) (Wikimedia, 2010). Original historical documents are made available via Wikisource. There is even a Wikiversity, devoted to ‘learning resources, learning projects, and research for use in all levels, types, and styles of education from pre-school to university, including professional training and informal learning’ (Wikiversity, 2010).

The Wikimedia Foundation employs a staff of just over 50, with offices in San Francisco and affiliated local chapters in a number of other countries. Ultimate authority over Wikimedia’s operations resides with a Board of Trustees, whose members are responsible for developing the mission and long-term plans of the organisation and for raising funds to support the various projects. The Board of Trustees is supported by an Advisory Board chaired by the Executive Director of the Foundation. Wikipedia’s content is generated by thousands of volunteer contributors and once material has been put online, it can be revised, extended and updated by anyone. Those who undertake such work are known as editors. There are Wikipedia policies – widely accepted standards that all editors would normally follow – but even these can be changed on occasion if there is a consensus that this is necessary.

Consensus is the key principle on which editorial decisions are made in Wikipedia:

There is no single definition of what consensus means on Wikipedia, but in articles consensus is typically used to try to establish and ensure neutrality and verifiability. Editors usually reach consensus as a natural and inherent product of editing; generally someone makes a change or addition to a page, then everyone who reads it has an opportunity to leave the page as it is or change it. When editors cannot reach agreement by editing, the process of finding a consensus is continued by discussion on the relevant talk pages. (Wikipedia, 2010b)

Consensus is ‘a decision that takes account of all the legitimate concerns raised. All editors are expected to make a good-faith effort to reach a consensus that is aligned with Wikipedia's principles’. ‘Sometimes’, it is noted, ‘voluntary agreement of all interested editors proves impossible to achieve, and a majority decision must be taken. More than a simple numerical majority is generally required for major changes’ (Wikipedia, 2010b).

Wikipedia is based upon a set of fundamental ideas, designated by its editors as the ‘five pillars’. The first of these is that ‘Wikipedia is an online encyclopedia’. As such, it ‘incorporates elements of general and specialized encyclopedias, almanacs, and gazetteers’ but it is ‘not a soapbox, an advertising platform, a vanity press, an experiment in anarchy or democracy, an indiscriminate collection of information, or a web directory’. Second, ‘Wikipedia has a neutral point of view’. The aim is to produce articles ‘that advocate no single point of view’. Sometimes, it is noted, ‘this requires representing multiple points of view, presenting each point of view accurately and in context, and not presenting any point of view as “the truth” or “the best view”’. Personal opinions and

experiences have no place in Wikipedia; instead, articles should be based on authoritative, verifiable sources. Third, 'Wikipedia is free content'; it can be edited and distributed by anyone, and is not owned by anyone. Fourth, 'Wikipedians should interact in a respectful and civil manner'. Contributors are urged to be polite to fellow Wikipedians, even when they cannot find agreement with them. Personal attacks and 'edit wars' should be avoided. The expectation is that participants will act in good faith and be 'open and welcoming'. Finally, apart from the five principles specified here, 'Wikipedia does not have firm rules'. Contributors are advised to be 'bold' in updating entries and to not worry about making mistakes. 'Your efforts', they are told, 'do not need to be perfect; prior versions are saved, so no damage is irreparable. However, don't vandalize Wikipedia' (Wikipedia, 2010c).

A Comparative Analysis

At first glance, a comparison between *Castalia* and Wikipedia might seem odd. One is the mid-twentieth century product of a German writer's imagination; a work sometimes neglected in discussions of literary classics from the last 100 years. The other is an early twenty-first century reality that, for anyone familiar with the Internet, is difficult to ignore. The events described in Hesse's novel are set in the twenty-third century but, as has been noted elsewhere (Roberts, 2009a), there is little that is 'futuristic' about the book. While some (e.g., Antosik, 1992) have seen the Glass Bead Game as a 'utopian machine' and compared it with the computer, technology does not figure prominently as a theme in the book. The precise workings of the Game remain ambiguous but it is

arguably better conceived as an idea, a state of mind and a set of cultural practices than a machine. Wikipedia is very much a phenomenon of the cyberspatial age. It could not exist without the Internet and its ongoing development is, in part, dependent on further advances in hardware and communication systems across the globe. Castalia is premised on the principle of intellectual and cultural elitism, with a privileged community of scholars and only the very best making it through to the most advanced schools; Wikipedia, on the other hand, is built on the notion of popular participation. There are, however, some important similarities between these two knowledge communities and much can also be learned by reflecting on their differences.

Hesse was a careful, reflective writer and he spent many years struggling to bring *The Glass Bead Game* to completion (Mileck, 1978). He thought long and hard about the book, and the end result is a work that is complex and multilayered. Some (e.g., Norton, 1968, 1973) have argued that despite Castalia's shortcomings, Hesse's vision was still a utopian one; others (e.g., Durrani, 1982) have seen Castalia more as a dystopian police-state. The book can also be regarded as the deliberate construction of a *flawed* utopia (Wilde, 1999). Another way to capture a similar idea is to see the novel as a utopian dystopia or a critical dystopia (Texter, 2008, p. 126). Thomas Mann (1999), Hesse's friend, countryman and fellow Nobel laureate, was among the first to recognise that *The Glass Bead Game* is, in part, a parody. Despite the narrator's lengthy introduction, readers remain unclear about exactly how the Glass Bead Game works. This has led one commentator to declare the Game a 'sham' (Bandy, 1973); another has seen the book as 'an elaborate joke on several levels' (Texter, 2008, p. 125).

Our view is that the book is *both* utopian and dystopian. A tension is maintained between two positions: first, a desire to preserve an elite, noble cultural and intellectual heritage; and second, the need to avoid the closure, smugness and decay that can emerge when a knowledge community is separated from the rest of the world. This tension is instructive in contemplating other knowledge communities, including Wikipedia. Castalians, as a rule, do not recognise or acknowledge their situatedness in history. They show little appreciation for the fact that their privileged intellectual life has to be paid for by others and that such an arrangement may not remain unchallenged in the future. They are separated from the messy realities of politics, economics and family relationships. They have their own system of schooling but they do not have a strong commitment to teaching beyond the confines the Castalia. Knecht, influenced by Plinio and Father Jacobus, forms an increasingly critical perspective on these features of Castalian life. Most Castalians, including the revered Masters, exhibit a closeted certainty about the superiority of their mode of life. Knecht, while deeply respectful of the Game and Castalia's other cultural achievements, questions and probes and cannot avoid the prompting of his conscience. Castalia is a haven for the intellect, and Knecht is very much at home in such an environment, but he is also a man who acts on his convictions, taking the ultimate step in resigning his position as Magister Ludi.

If Castalia is fundamentally a *closed* knowledge community, what might we say about Wikipedia? In some respects, it is the very antithesis of this. Far from being separated from the rest of the world, Wikipedia *is* the world. People who read and edit Wikipedia come from all corners of the Earth. At its FAQ page, Wikimedia claims to be 'respected by scientists, academics, journalists, and foundations' (Wikimedia, 2010).

There are, however, definite patterns of participation, with a small group of dedicated contributors dominating the editing process. Martin Cohen claims that while ‘there is much talk about consensus, civility and reliable sources’, on closer examination ‘Wikipedians seem an unappealing bunch - computer fanatics, generally male, usually teenagers. They see the world only from a youthful cab driver’s perspective. If anyone disagrees with the Wikipedian consensus, their edits are “reverted” and they can be banned – “indefinitely”’ (Cohen, 2008). Chris Wilson, likewise, argues that Wikipedia’s success is ‘largely due to the devoted efforts of a small number of obsessive editors, many of whom are quick to undo the work of trespassing newcomers’. Drawing on the work of Ed Chi and colleagues, Wilson reports that about ‘[h]alf of all edits ... come from users who have made at least 100 changes to the site, and 20 percent of edits come from those who have made 1,000 or more changes. [...] On the other end, Chi and company found that by the end of 2008, first-time users had a 25 percent chance of having their change to Wikipedia undone by someone else’. Wilson suggests that ‘[t]he movers and shakers of Wikipedia are largely hidden from public view and unaccountable for editorial decisions’. This makes it relatively easy ‘for one person to establish sovereignty over a less-trafficked page through sheer persistence and a solid command of the site’s Byzantine rules for resolving disputes’ (Wilson, 2009).

Few of Wikipedia’s regular contributors are trained researchers and there is a profound distrust of Wikipedia in the academic community (May, 2010). Indeed, academics sometimes direct their students to Wikipedia pages to demonstrate the need for caution in reading and reviewing information on the Internet. There is, moreover, a clear hierarchy in Wikipedia, just as there is in Castalia, although in the case of the former this

more fluid and less formal. The development of different roles is seen to arise organically from the Wikipedia community itself:

The Wikipedia community is largely self-organising, so that anyone may build a reputation as a competent editor and become involved in any role he/she may choose, subject to peer approval. Individuals often will choose to become involved in specialised tasks, such as reviewing articles at others' request, watching current edits for vandalism, watching newly created articles for quality control purposes, or similar roles. Editors who believe they can serve the community better by taking on additional administrative responsibility may ask their peers for agreement to undertake such responsibilities. This structure enforces meritocracy and communal standards of editorship and conduct. At present a 75–80% approval rating from the community is required to take on these additional tools and responsibilities. This standard tends to ensure a high level of experience, trust, and familiarity across a broad front of aspects within Wikipedia. (Wikipedia, 2010a)

While most entries in Wikipedia can be edited by anyone, some are protected to avoid vandalism and 'edit wars'. Anyone who has held a Wikipedia account for more than 4 days and completed at least ten edits becomes 'autoconfirmed' and has some privileges not available to other editors: such a person can move articles, edit semi-protected entries, and vote in certain elections. In addition, there are several other specialist roles. 'Administrators', who must be approved by the community, can 'delete articles, block

accounts or IP addresses, and edit fully protected articles'. 'Bureaucrats', who are relatively few in number, 'have the technical ability to add or remove admin rights, approve or revoke "bot" privileges, and rename user accounts'. There is an 'Arbitration Committee', elected by the community, which is seen as 'kind of like Wikipedia's supreme court'. Members of this committee 'deal with disputes that remain unresolved after other attempts at dispute resolution have failed'. There is a very small group of 'Stewards', who are 'the top echelon of technical permissions, other than the Wikimedia Board of Directors. Stewards can do a few technical things, and one almost never hears much about them since they normally only act when a local admin or bureaucrat is not available, and hence almost never on the English Wikipedia'. Finally, Jimmy Wales, Wikipedia's founder, has 'several special roles and privileges' It is noted, however, that '[i]n most instances ..., he does not expect to be treated differently than any other editor or administrator' (Wikipedia, 2010a).

Neither Castalia nor Wikipedia focuses on the creation of new knowledge. Castalians assume that the 'manuals, pedals and stops' of the Glass Bead Game are now fixed, with nothing further to add to the vast stock of human knowledge on which exponents of the Game play. Wikipedia does not accept original research articles and 'ideas which have not appeared in other sources'. This is justified on the basis of the contribution policy. 'Because '[t]he expertise or qualifications of the user are usually not considered', it must be possible to verify the information provided in any Wikipedia entry (Wikipedia, 2010a). Both Castalia and Wikipedia, then, work with already existing knowledge. Their value, realised in different ways, lies in what they add to this. The glory of the Glass Bead Game becomes evident, as was the case in a magnificent

tournament organised by Joseph Knecht as Magister Ludi, in the distinctive ways in which existing knowledge is recombined and presented or interpreted afresh. Similarly, in Wikipedia, knowledge is reorganised in ways that wouldn't be possible in a traditional single encyclopedia. Wikipedia allows for a potentially infinite number of different entries and coverage of topics that would otherwise be eliminated (e.g., in relation to the lives of television personalities or popular music stars). It also has powerful search capabilities, and a vast web of links between different pages.

The ambitions that underpin Wikipedia as an enterprise bear a resemblance to the conceptual architecture of the Glass Bead Game. The Glass Bead is, the narrator informs us, capable of reproducing the entire intellectual content of the universe. The aim of Wikipedia is no less than 'a world in which every single human being can freely share in the sum of all knowledge' (Wikimedia, 2010). Hesse's novel shows that the pursuit of all-encompassing knowledge should not be understood as separate from the social context within which people teach, learn and live. The Castalian hierarchy pays only limited attention to teaching and its importance in realising epistemological goals. There is little concern for teaching those beyond the pedagogical province and only minimal appreciation that something worthwhile might be learned from outsiders. Knecht stands out because he challenges the excessive certainty characteristic of most Castalians. It is his spirit of openness that allows him to give the task of teaching the respect it deserves. Teaching is one of the functions of the wider set of Wikimedia projects, but in Wikipedia it is pushed into the background. There is an implied rejection of the need for a certain kind of teaching, inasmuch as specialist training is seen as unnecessary for a worthwhile contribution. Traditional encyclopedias place greater stock on expertise that has been

gained from initiation into a field through years of research, almost always under the guidance of teachers and supervisors. Such people are not excluded from participating in the Wikipedia community but their specialist training is accorded no special status or value.

Openness and closure in Castalia and Wikipedia are related to questions about individuality and collectivism. In Castalia there is, in theory, a commitment to the maximum integration of the individual into the group. There are nonetheless some individuals who stand out by virtue of their words or deeds. Most notable among these is Knecht himself, but mention might also be made of his brilliant but fragile friend Tegularius (whom Hesse modelled on Nietzsche) and those listed by the narrator as innovators in the evolution and development of the Game. There is also considerable openness in what students study, particularly in their immediate post-school years. Wikipedia allows for maximum individuality to the extent that it is open to anyone to post or edit an entry and there are minimal (but not non-existent) restrictions on the content areas that can be covered. On the other hand, there is also a high degree of integration into the wider community of contributors in the sense that entries are anonymous and the product of a collective process of creation and editing. In both Castalia and Wikipedia there is, as an ideal, a sense of participating in a process that transcends the thoughts, feelings, and ideas of any individual – a commitment to working with knowledge in a certain way. Unlike the academic world, with its ‘star’ researchers, in both Castalia and Wikipedia, the rewards are meant to be more intrinsic. Participation in the community and organising knowledge in distinctive ways are seen as ends in themselves. In Castalia, there is a sense of detachment and formality in conversations

between members of the community; in Wikipedia, individuals are invisible but bound to thousands of other invisible individuals in contributing to the overall growth and development of the encyclopedia.

In Castalia, change occurs slowly, and there has, Knecht comes to believe, been considerable decay. Wikipedia has been characterised by extraordinarily rapid growth, and it is recognised that change is a constant. This is promoted as one of Wikipedia's strengths: unlike traditional encyclopedias, Wikipedia can respond effectively to change that occurs not just over years or decades but within weeks, days or even hours. Castalia is self-consciously conservative in its social organisation; Wikipedia actively promotes boldness. The political ethos of Wikipedia is broadly democratic, though not unproblematically so; Castalia is more like the form of social organisation set out in Plato's *Republic* (Plato, 1974), with Masters who are similar to philosopher rulers and a commitment more to what is 'noble' than to what the 'masses' believe or want. This is consistent with leanings towards cultural elitism in some of Hesse's other writings (Antosik, 1978). Cultural elitism, however, is not equivalent to *educational* elitism and arguably Hesse favours the former but not the latter (Roberts, 2009b).

For academics, the question of quality is paramount and this is where Wikipedia comes in for its most severe criticism. In Castalia, quality emerges in an evolutionary way (as the Game develops over time) and through a process of elite selection (with only the most able students making it to the top schools in the pedagogical province). Only a very small group of Castalians ever reach the very pinnacle of their respective areas of endeavour, becoming Masters and being accorded God-like status within the community. Rigour in the Game and in the various arts and sciences is ensured through an

apprenticeship model of educational development, and the selective nature of the system is a matter of some pride. In Wikipedia and other similar Web 2.0 environments, quality is the product of self-regulation (by the collective Wikipedia community) (Walsh & Oh, 2008). This is true of the academic world as well, but the forms of regulation are different: Wikipedia relies not on expert scholarly peer review but a more populist form of collective monitoring and adjustment. Quality in the world of Wikipedia is a distributed responsibility, not the preserve of a single scholar or a small group of people. The assumption is that over time, the relative openness of the process will lead to greater quality. Academics lack faith in Wikipedia for exactly this reason: by opening up the process of judgement to ‘the world’, the ability to draw deliberately on the expertise of those who are best qualified to judge is diminished. Openness in one sense, then, also becomes a form of closure.

Concerns over reliability and quality can, however, be exaggerated. Oblinger and Lombardi (2008) cite the case of a *Chronicle of Higher Education* story on the efforts of Middlebury College’s history department to discourage students from citing Wikipedia because of perceived inaccuracies. Wikipedia’s response was rapid. The department, in turns out, ‘was merely reacting to a single error in Wikipedia, an error that was amended in a matter of hours, demonstrating precisely what sets the online encyclopedia apart from its printed predecessors’ (p. 392). Oblinger and Lombardi refer to the work of Davidson, who maintains that ‘Several comparative studies have shown that errors in Wikipedia are not more frequent than in comparable print sources’ (p. 392). An online encyclopedia such as Wikipedia has an advantage over traditional encyclopedias, however, in being able to correct mistakes quickly. Indeed, shortly after the controversy

generated by the *Chronicle* article, the entire Middlebury debate was itself covered in Wikipedia.

It is possible to argue that underlying the concept of the Glass Bead Game is the dream of a universal language (cf. Peters, 1996). The narrator makes it clear that the Game enables players to draw connections between different bodies of knowledge, synthesising insights from a range of disciplines. This does not mean, however, that Hesse's book provides an implicit endorsement of the modernist assumptions at the heart of some other social ideals based on the concept of a universal language (Roberts, 2008). Knecht, as he reflects on his own process of development (he calls it 'awakening'), problematises universalist constructs of truth. He cannot reach agreement with his fellow Masters about the weaknesses of Castalian society and feels compelled to leave the pedagogical province. Wikipedia, on the other hand, is explicitly wedded to an ideal of truth emerging through consensus. There is a faint echo, in the Wikipedia pages, of the Habermasian notion of dialogue through consensual communication between rational subjects (Habermas, 1984, 1987). Hesse does not deny the potential epistemological (and ethical) value of dialogue but nor does he ignore some of the challenges facing those who enter into it (Roberts, 2010).

Conclusion

In *The Glass Bead Game* Hermann Hesse anticipates some of the key questions and concerns of our current age (Nelson, 2008; Peters, 1996; Peters & Humes, 2003; Roberts, 2009a). Castalia provides an example of a knowledge community, with a hierarchical

governance structure, a Master-student model of teaching and learning, and a commitment to understanding and self development through the synthesis of different arts and disciplines. Castalia's principal weaknesses – its separation from the rest of the world, its excessive certainty and its disregard for history – are noted by Joseph Knecht, whose observations serve as a warning for others devoted to similar goals in the real world of the early 21st century. Wikipedia is a contemporary digital community devoted to the goal of making all that is known available to all who wish to know. This paper has shown that while Wikipedia differs from Castalia in some important respects, there are also some surprising similarities. Built on a platform of popular participation, in direct contrast to the elitism of Castalia, Wikipedia nonetheless has its own hierarchy, its own rules, and its own forms of closure. There is a real danger that Wikipedia, like Google, could become 'too big', and in so doing, place at risk the openness and boldness its supporters value so highly. Wikipedia's 'Masters' – its most active editors and those in other special positions – are aware of some of the limits of Wikipedia as compared with other encyclopedias of a more traditional kind. Concerns among the academic community about the reliability of information from Wikipedia are unlikely to ever be fully alleviated, but this has never been Wikipedia's fundamental goal. Much greater speed in adding and updating information, and involvement of the many rather than the few, have always been seen as ample compensation for any inaccuracies that emerge in the initial posting of entries. Wikipedia, like Castalia, is a flawed ideal but it is, as far as can reasonably be predicted, here to stay. Academics may be right to continue urging caution when advising students who consult Wikipedia for information, but they can also

gain much from reflecting on the distinctive features of this 21st century phenomenon and its lessons for other knowledge communities.

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