prof.dr. S.S. Nandram

INTEGRATIVE SPIRITUALITY IN THE FOURTH INDUSTRIAL REVOLUTION:
From How We Do Things to Why We Exist

prof.dr. S.S. Nandram

INTEGRATIVE SPIRITUALITY IN THE FOURTH INDUSTRIAL REVOLUTION:
From How We Do Things to Why We Exist

Rede uitgesproken bij de aanvaarding van het ambt van hoogleraar Hindoe Spiritualiteit en Samenleving aan de Faculteit Religie en Theologie van de Vrije Universiteit Amsterdam op 21 november 2019.

VU VRIJE UNIVERSITEIT AMSTERDAM

Mijnheer de rector, dames en heren,

Why connect to the Fourth Industrial Revolution?

It may seem odd to suggest a link between industry and spirituality. However, in the Fourth Industrial Revolution—the new age—scholars assume that citizens will encounter more existential questions than ever before. Originally, such questions belonged to the fields of religion, theology, philosophy, and spirituality. It is therefore important as a member of the Faculty of Religion and Theology of the Vrije University of Amsterdam, and as a professor of Hindu spirituality and society (*Hoogleraar Hindoe Spiritualiteit en Samenleving*) to reflect on a key topic in society: the Fourth Industrial Revolution. Technologists and entrepreneurs assume that this era will have a huge impact on all domains of life. Scholars such as professor Klaus Schwab, founder of the World Economic Forum, stress that the Fourth Industrial Revolution will redefine what it means to be human. This Forum, which has been globally active for the past 48 years and uses multi-stakeholder theories, recently pointed to an urgent need to rethink our humaneness in the midst of technological advancements. Professor Schwab stresses that the narrative that shapes who we are should reflect a collaborative approach involving various scientific disciplines. In other words, it should reflect an interdisciplinary approach. After considering the work of the Forum, its call to rethink our role, and my work on spirituality over the past twelve years, I conclude that such a collaboration is indeed necessary and that it invites an integrative approach.

What does this integrative approach involve? It starts with a broader perception of reality than scholars usually adopt. It requires scholars to strive for coherence (Bindlish, Nandram & Joshi, 2017; Nandram, Bindlish & Keizer, 2017). This broader

process of perception starts with a holistic understanding of reality, which naturally encourages an interdisciplinary approach to working. My use of the term "holistic" in relation to the integrative approach is inspired by Vedic scriptures.

Box 1: Verses on the knowledge-process trinity

ज्ञाता ज्ञानं तथा ज्ञेयं द्रष्टा दर्शन दृश्यभूः ।
कर्ता हेतुः क्रिया यस्मात् तस्मै ज्ञप्त्यात्मने नमः ॥

jñātā jñānaṁ tathā jñeyaṁ draṣṭā darśana dṛśyabhūḥ ।
kartā hetuḥ kriyā yasmāt tasmai jñaptyātmane namaḥ ॥

jñātā = knower, jñānaṁ = knowledge, tathā = and, jñeyaṁ = to be known, draṣṭā = seer, darśana = observation, dṛśyabhūḥ = object, kartā = doer, hetuḥ = reason, kriyā = action, yasmāt = from whom, tasmai = to him, jñaptyātmane = God, namaḥ = salutation

Knower, knowledge, and to be known; Seer, observation and object; Doer, reason and action; (researcher, research, and to be researched); we pray to God from whom all of these come.[1]

ज्ञानं ज्ञेयं परिज्ञाता त्रिविधा कर्मचोदना ।
करणं कर्म कर्तेति त्रिविधः कर्मसंग्रहः ॥१८.१८॥

jñānaṁ jñeyaṁ parijñātā tri-vidhā karma-codanā
karaṇaṁ karma karteti tri-vidhaḥkarma-saṅgrahaḥ

jñānam—knowledge; jñeyam—objective; parijñātā—the knower; tri-vidhā—three kinds; karma—work; codanā—impetus; karaṇam—the senses; karma—work; kartā—the doer; iti—thus; tri-vidhaḥ—three kinds; karma—work; saṅgrahaḥ—accumulation.

Knowledge, the object of knowledge, and the knower are the three factors that motivate action; the senses, the work, and the doer comprise the three-fold basis of action.[2]

---

[1] Verse 1, Yog Vashishtha (Sanskrit scripture) (Bindlish et.al., 2018).
[2] Verse 18.18, Bhagavad Gita, (https://prabhupada.io/books/bg/18/18 Last accessed on October 16, 2019).

The Vedic scriptures are an important foundational element of Hinduism. They assume that an understanding of any reality requires an understanding of the knowledge trinity. Box 1 provides an overview of some verses on the knowledge-process trinity. This trinity describes the process of knowing, which consists of the knower, the knowable or the thing to be known, and knowledge. Usually, we only focus on knowledge as detached from the person who is trying to get to know something and we tend not to stress the importance of finding a proper name for what we are trying to know. However, if we try to find a proper name, we are driven to define the things that we study and, in that process, we come to understand the distinctive qualities of the thing that we are studying.

Box 2: Vedic verse on coherence

वेनस्तत् पश्यन्निहितं गुहा सत् यत्र विश्वं भवत्येकनीडम्।
तस्मिन्निदं सं च वि चैति सर्वे, सं ओतः प्रोतश्च विभूः प्रजासु। (यजुर्वेद 32.8)
Venas tat pashyan nihitam guha sad yatra vishavam bhavatyekaneedamm tassminnidam sa vi chaiti sarvam sa otah protashcha vibhuh prajaasu (Yajurved 32.8)

In search of the ultimate truth, the wise sages went everywhere in this universe and other realms, even in Devbhoomi. They found that there was only one omnipresent truth everywhere. They knew that they themselves were absorbed in the same truth and then they understood that they were already part of the same truth.[3]

Different schools of thought often fall under the umbrella term "Hinduism". They provide arguments for a holistic view of reality and an inherent call to strive towards coherence. Box 2 highlights an important Vedic verse on coherence.

---

[3] "The loving seeker sages beholds that mysterious reality wherein the universe comes to have one home" (Vyas, 1992)

One of the main assumptions in these schools of thought is that all life is connected in moving towards a form of coherence and that it is our task to sharpen our perceptions in order to see and experience that coherence. The assumption that life leads towards harmony, equilibrium, or coherence is built on the Vedic thinking that life as a macrocosm is a reflection of life as a microcosm. In other words, as is an atom, so is the universe. This is expressed in a commonly used verse in the oral vedic tradition: *yatha pinde, tatha brahmande*.[4] There are many expressions for the idea of all-connectedness. Box 3 points out several important Vedic verses on all-connectedness. I will mention some of them.

Box 3: Vedic verses on all-connectedness

आ नो भद्राः क्रतवो यन्तु विश्वतोऽदब्धासो अपरीतास उद्भिदः।
देवा नोयथा सदमिद् वृधे असन्नप्रायुवो रक्षितारो दिवेदिवे॥
A no bhadrah Krtavo yantu Vishvatah" (RigVeda 1.89.1)

May auspicious powers come to us from every side, never deceived, unhindered, and victorious, That the Gods ever may be with us for our gain, our guardians day by day unceasing in their care.

Sarvam khalvidam brahma: "All this is Brahman*"*.[5] *Ekam evadvitiyam*: "That (Brahman) is one, without a second".[6] *Prajñānam brahma*: "Consciousness is Brahman".[7] *Ayam ātmā brahma*: "This Self (Atman) is Brahman".[8] *Tat tvam asi*: "Thou art

---

[4] "यत् पिण्डे तत् ब्रह्माण्डे तदेव च देवयजन्याम् ", "यथा पिण्डे तथा ब्रह्माण्डे। यथा कायस्तथा सर्वम् ॥"
[5] सर्वं खल्विदं ब्रह्म ॥Chandogya Upanishad 3.14.1).
[6] एकमेवाद्वितीयम् ॥ *ekam evādvitīyam* (Chandogya Upanishad 6.2.1).
[7] प्रज्ञानं ब्रह्म ॥ *prajñānam brahma* (Aitareya Upanishad 3.3, Rig Veda).
[8] अयम् आत्मा ब्रह्म ॥ *ayam ātmā brahma* (Mandukya Upanishad 1.2 Atharva Veda).

that" ("You are Brahman" or" Knowledge is Brahman").[9] *Aham brahmāsmi*: "I am Brahman".[10]
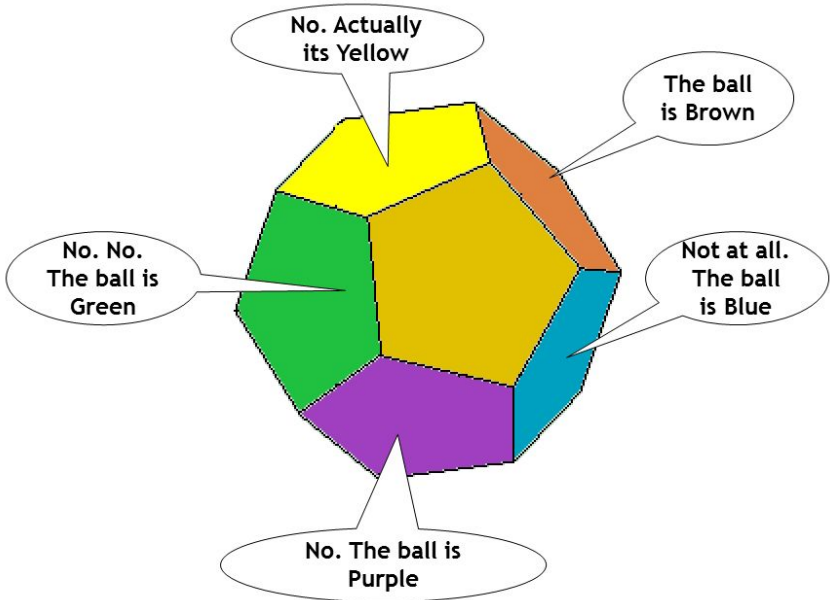

Figure 1 Holistic and Integrativeness

The idea of coherence is gradually entering the field of modern physics. Physicist Ervin Laszlo explains that scientists first assumed that matter vibrates. However, there is no basic substance that we can conclusively call matter. The world is a set of variously formed clusters of vibration and "matter" is the way the vibrations appear upon observation. To quote Laszlo: *"The new physics tells us that it is not from bits of matter but from*

---

[9] तत्त्वमसि ॥ *tat tvam asi* (Chandogya Upanishad 6.8.7, Sama Veda).
[10] अहं ब्रह्म अस्मि ॥ *aham brahmāsmi* (Brhadaranyaka Upanishad 1.4.10, Yajur Veda).

clusters of highly ordered 'in-formed' vibrations that the things we find in the world are built. The in-formation of the vibrations makes the world what it is: a system of coherent clusters and waves of vibration, and not a welter of random things and events" (Laszlo, 2017, p. 8). The new insights in physics strengthen the assumption of coherence that is core to the integrative approach that I have developed together with colleagues over the past several years. The integrative approach creates room to evaluate all entities' perspectives and purposes in order to derive a holistic picture (See Figure 1). This subsequently requires contextualizing viewpoints with the basic assumption that there are always many viewpoints on any phenomenon that we want to study. The phenomenon of spirituality is such that we find many viewpoints in different contexts in the literature.

After reflecting on the terms "holistic", "coherence," "all-connectedness", and based on the Vedic insights, I prefer to position the Hindu view of the world as an integrative anchor in order to understand, develop, and challenge the scholarly field of spirituality. In so doing, I hope to meet the worldwide call to shape a narrative of who we are that contributes to the sustainable development of societies. I think that in order to understand who we are, we need to ask ourselves a deeper question: Why do we exist? Hence, the title of my inaugural lecture is "Integrative Spirituality in the Fourth Industrial Revolution" with the subtitle "From How We Do Things to Why We Exist". I will first look at the field of spirituality and define "integrative spirituality". I will then briefly reflect on the Fourth Industrial Revolution and why integrative spirituality can contribute to how we do things, which naturally leads to existential questions. Subsequently, I will discuss the themes of my research agenda. At the end of my lecture, I will express my gratitude in Dutch.

The field of spirituality

As a field of study, spirituality was originally been positioned in the context of religion. However, views on the interrelationship are divisive (Benefiel, Fry & Geigle, 2014). Some scholars only focus on the theme of spirituality as a driving force for rethinking paradigms that are used in the context of organization science, management, and entrepreneurship (Karakas, 2010, Mitroff, Denton & Alpaslan, 2009; Mitroff, Mitroff, & Denton, 1999; Capra, 1996; Giacalone and Jurkiewicz, 2005; Giacalone and Eylon, 2000; Nandram and Borden, 2010; Bouckaert and Zsolnai, 2011; Ray and Rinzler, 1993; Wheatley, 1992; King-Kauanui, Thomas & Waters, 2005; Miller, 2007). The term "spirituality" seems to be more accepted in such contexts than "religion" (Benefiel, Fry & Geigle, 2014). This need for rethinking has accompanied several developments, which are often put under the acronym "VUCA" (volatility, uncertainty, complexity, and ambiguity) (Nandram and Bindlish, 2017). The impact of spirituality can be seen in practice too. Large traditional multinational corporations are now actively incorporating spirituality into their human resource management and strategic policies (Karakas, 2010). Up-and-coming technology companies in silicon valley are adopting these practices as well.[11] They do so mainly as part of their strategy to nurture employees' well-being as well as their ability to stay creative and innovative. Several prominent businessmen have also highlighted the relevance of such practices.[12]

---

[11]

https://www.businessinsider.nl/effects-meditation-brain-changes-health-science-2017-8?international=true&r=US (accessed October 15, 2019).
[12]

https://www.forbes.com/sites/stephaniedenning/2018/02/02/the-benefits-of-meditation-in-business/ (accessed October 15, 2019).

Scholars are not just using theoretical scientific arguments to promote spirituality. Some have started empirical studies, mainly on the relevance of spirituality in society, especially in the workplace (Duchon and Plowman, 2005; Milliman, Czaplewski, & Ferguson, 2003; Ashmos and Duchon, 2000; Pawar, 2009; Roof, 2015; Saks, 2011; Karakas, 2010). There are some debates among scholars on whether these studies are able to capture the construct of spirituality well enough. Some scholars criticise the positivistic paradigm in studies of spirituality (Cacioppe, 2000; Dehler and Welsh, 1994; Mitroff and Denton, 1999; Waddock, 1999; Fornaciari and Dean, 2001; Benefiel, 2010). Another more fundamental question is: What is spirituality? Do we have a definition for it? If there is inconsistency in *definitions of spirituality*, scholars who are interested in the concept will be unable to communicate both within and across disciplines.

Analyzing existing definitions

I conducted research on existing definitions of spirituality in two phases. The two phases of data collection resulted in a total of 142 definitions. I followed *guidelines for classification of elements*, or taxonomy, for analysing these definitions (Mayr, 1981; Morrison, 2000; Mendenhall and Osland, 2012; Bindlish, Nandram & Gupta 2019; Nandram, Bindlish & Keizer, 2017; Walter, 2009). Following rules were applied:

- A definition should have a genus, which means that it explains the class to which spirituality belongs.
- A definition should have a differential property, such that it explains the unique quality of spirituality.
- A definition should tell us about the entity covered by the spirituality definition.

An interesting finding of this study is that the existing definitions of spirituality have multiple levels (individual development, organizational impact, and life in general). Some do not even mention a level. Moreover, they have multiple dimensions (e.g. inner life, transcendence, connectedness, self realization, and sacred). I also found definitions that address multiple layers (physical, emotional, vital, mental, psychic) before they reach the spiritual layer. Furthermore, many definitions are not focused or the genus is inadequately mentioned. Ideally, we aim for consistency in definitions. In analysing and coding the genus, our aim is to find an underlying category. However, it was difficult to find only a few types of underlying genus in the 142 definitions. In fact, I found 97 types of genus. I analyzed the definitions again using genus categories. This led to a lower number of types of genus. Notably, the definitions included things that one can perceive about existence as well as aspects that cannot be perceived in the regular mental realm. Some of them referred to a search or connecting to something sacred.

In the literature, we see an attempt to design measurements for spirituality by describing many types of dimensions (Ashmos and Duchon, 2000; Miller and Ewest, 2103a; 2013b; 2015; Pandey, Gupta & Arora, 2009; Petchsawang and Duchon, 2009; Duchon and Plowman, 2005; Ashforth and Pratt, 2010; Kinjerski and Skrypnek, 2004). These attempts do not really help the field to converge on an understanding of spirituality. Therefore, I believe that there is a need for a definition of spirituality.

Towards defining integrative spirituality

Methodology

To define spirituality, I followed the guidelines *for definitions* that I found in the literature (Walter, 2009; Overholser, 1994; Bindlish and Nandram, 2019). The Nyaya (Indian logic) tradition also offers guidelines for definitions as well as various forms of logic that can help *prove or disprove definitions* (Govindacharya, 2013). I applied three guidelines for definitions from this tradition:

➔ *Uddeshā (उद्देश)*: What are all of the constituents or elements of spirituality?

➔ *Lakshānā* (लक्षण): What is the differential property of spirituality?

➔ *Pāreeksh*ā (परीक्षा): This is the process of removing any inconsistencies that occur when defining or assessing the differential property of spirituality.

A definition fails in any of the following cases. The first, *avyapātidoshā* (अव्याप्तिदोष) is inconsistency that arises when an attribute does not occur in all members of the class of concepts that is being defined. Second, *ativyapātidoshā (अतिव्याप्तिदोष)* is inconsistency that occurs when an attribute occurs outside the class of the concept that one is trying to define. Third, *asāmbhāvādoshā (असंभवदोष)* is inconsistency that arises when an attribute cannot occur in the focal class. Let us apply these inconsistencies. The first condition of failure occurs when some aspect of a definition does not fully exist inside the class. For example, scholars consider the inner component to be an important dimension of spirituality. However, this inner component does not exist in all definitions of spirituality. The

second condition of failure occurs when some aspect of a definition exists outside the class. For example, spirituality is the study of well-being. The quality of well-being exists outside the class as well because it can be studied within the fields of psychology. The third condition that leads to failure is when a definition assigns qualities that cannot be true. In the focal definitions, such qualities were not found. However, I can give an example to help explain this condition: "Spirituality is a study that teaches us how to build a car". This statement is impossible.

Need for integrativeness

There seem to be a need for integrativeness to reconcile the different views in order to propose a definition that can be widely used. I will mention three views (Nelson, 2009).

1. First, religion is positioned as either *transcendent or immanence or sometimes both*, referring to all aspects of human relationships to the divine, a higher force, or a power that is bigger and greater than us.
2. Second, religion is positioned as a *distinct way of living togethe*r that is expressed in distinct emotions, beliefs, ways of thinking, practices, habits, desires, purposes, commitments, and virtues. This view of religion has three divisions:
   - *value orientations* concerning ultimate meaning,
   - *worldview* as a basic set of assumptions, and
   - *ways of thinking* about self and our place in the world.
3. Third, religion is seen as a *cultural phenomenon* using either an etic or an emic model. In the *etic model*, religion is seen as a universal phenomenon with similarities across all settings in different cultures. In the *emic*

model, each religion is seen as a unique system that allows for own interpretations and unique qualities.

In the analysis of definitions, I found all of these variations of categories. Some key questions arise: What makes spirituality distinct from religion? Should we look for such a distinction or can we just borrow these categories for spirituality? Zinnbauer and Pargament (2005) note that scholars of religion seem to be more concerned with religion's ontology than its praxeology. The discussion regarding the divide does not appear to be relevant in scholarly work on spirituality in management. In that stream of research, spirituality seems to be treated in the same way as religion, and the interest lies in its impact rather than its ontological or epistemological aspects. (Mitroff and Denton, 1999; Mitroff, Mitroff & Denton, 1999; Canda and Furman; 2010; Gibbons, 2019; Karakas, 2010; Roof, 2015; Zinnbauer and Pargament, 2005; Nelson, 2009). Zinnbauer and Pargament (2005) call for a reconciliation of etic and emic differences, objective and subjective truths, the research and relevance of clinical practice, local and universal truths, and science and hermeneutics.

Of all of the categories that I mentioned earlier, I believe spirituality as a worldview fits best with the integrative nature of Hinduism (Bindlish and Nandram, 2019). This is because worldview allows for a holistic approach, which is a core aspect of integrativeness. The term "worldview" has a German root and it refers to a sense of perception of the world (Bindlish and Nandram, 2019). In her conceptualisation, van de Kooij (2016) describes worldview in different ways. Sometimes she describes it as closely related to culture, or as a deep ontological commitment to what the world is and what it contains. At other times, she describes it as a paradigm (van de Kooij, 2016). I use it contextually, such that the term does not have internal normative value or a strong appraisive character in itself (van de

Kooij, 2016). Worldview has both religious and secular meanings as well as personal and organized dimensions (van de Kooij, 2016). When I talk about an integrative worldview based on Hinduism, I am referring to an organized worldview. A worldview can address the perspectives and purposes of an individual as well as an organisation (if we want to move towards levels of analysis other than the individual). It gives place to cultural artefacts, distinct ways of living, values, and transcendence, all from the view of the entity whose worldview is in focus.

Definition schema: towards integrativeness

After deciding to use the concept of worldview, let me continue with the definition. Spirituality cannot be captured in one definition, as many scholars see it as a rich, intercultural, and multi-layered concept (Bouckaert and Zsolnai, 2011). Therefore, my aim is to develop a definition schema in order to address the challenges that are mentioned in the literature. To give scope to different worldviews and to express what spirituality means for different individuals, I first propose a definition schema that can then be used for all of these purposes.

A definition schema can be converted to a thick definition. How does this work? We can think of adding the terms "integrative" or "Hinduism" to spirituality and then develop a specific definition by following the worldview of Hinduism.[13] We can also expand the definition schema by applying it in certain domains, such as workplace spirituality, organisational spirituality, or entrepreneurial spirituality. We can also think of the process of spirituality and define, for instance, spiritual leadership, spiritual entrepreneurship, or spiritual economics. The definition schema that I propose is:

---

[13] For more about the Hindu worldview, see Nandram et al., (2019) in press, edited by Bouckaert and van den Heuvel.

> Spirituality is any **entity's quality** of becoming aware of the **connectedness** with its **existence beyond perceived existence.**

The underlined terms in the definition schema are those that can be elaborated to derive a thick definition, which can be applied in specific context, from a specific perspective, and for a specific purpose. As the concept of spirituality deals with the world within and without, which has infinite dimensions, "quality" has been chosen as the **genus**. This represents a limitless thing, a process on an infinite scale, a continuum, or simply a journey. The **differential property** is connectedness with one's existence beyond perceived existence.

The term **existence** has multiple dimensions. Existence can be seen as a continuum. It contains individual development. Everyone has an idea of existence, but it is not objectively defined. In the definitions that I analyzed, scholars attempt to provide lists of things. However, they are all trying to capture existence. Different people have different awareness of existence. Some may consider their existence in terms of, for instance, "I am the body" or "I am a citizen of the Netherlands". Usually, people have different ideas of the self. People differ in how they see the world and, therefore, their sense of "world-making" is different.

The phrase **beyond perceived existence** also has more dimensions such as inner, outer, sacred, and transcendent. It goes beyond the physical and mental realms. Going beyond perceived existence can be labeled as "being spiritual" or the "process of spirituality". The proposed definition schema gives direction to everyone. It is observer-centric. Experiences are important and everyone has his or her own experience with existence. Experiences offer the potential to develop, to change,

to act, and to transform. Your existence expands by virtue of connectedness to the realm beyond. Then your perceived existence also changes. It enriches the existential context of "I" or the self: it enriches the existential part of your identity.

By defining spirituality as a schema as I propose here, some of the concerns that are mentioned in the scholarly debates can be addressed (Zinnbauer and Pargement, 2005; Zinnbauer et al., 1997). If we follow the worldview of Hinduism, then we can add the phrase "through detached observation" to the definition. This leads to the following definition of integrative spirituality: a quality ("a guna") of any **entity** of becoming aware of the connectedness with its **existence beyond perceived existence through detached observation**. In Hinduism, this detached observation is at the core of relating to existence. A detached observation helps us to know where we are heading in the cycle of life. It helps us understand who we are and why we exist.

Reflections on the Fourth Industrial Revolution

After elaborating on spirituality and the integrative aspect, let me move to the context of the Fourth Industrial Revolution. Engineers tell us that the technological possibilities that are awaiting us will be more disruptive than ever. In this regard, I refer to the work of the World Economic Forum and two books written by Professor Klaus Schwab. The first book is the *Fourth Industrial Revolution* published in 2016. The second book, which he co-authored with Nicholas Davis in 2018, is *Shaping the Future of the Fourth Industrial Revolution*. In the foreword to the latter, Satya Nadella, CEO of Microsoft, expresses his appreciation for the technological shifts in three areas: mixed reality, artificial intelligence, and quantum computing. One of the most fundamental shifts he mentions is mixed reality. He explains: "We will have access to colleagues, customers, friends

anywhere we want to access them. They will be available to us as the data and apps that we have on our phones". Artificial intelligence will enable experiences and augment human capabilities in ways that we would not be able to achieve on our own. Nadella believes that there are two important conditions for success: people and organizations need to be empowered by democratizing access to intelligence and they need confidence in the use of technology. He also stresses that both of these conditions require an ethical imperative to be inclusive and transparent in the design of these technologies.

Schwab and Davis (2018) state that we are at a crossroads. The policies that were once the enablers of success are now failing us. Neurotechnologies and biotechnologies are pushing us to rethink what it means to be human. These authors stress that the Fourth Industrial Revolution has the potential to robotize humanity. If this happens, it will fundamentally and negatively affect the meaning of work, community, family, and identity. They propose that we take up the call to lift humanity into a new collective and moral consciousness that is based on shared human aspirations and a shared sense of destiny in which values are prioritized because values motivate people to act. This will help to create an inclusive, sustainable, and prosperous future. They remind us that the Industrial Revolution in Western Europe brought significant shifts in values, as evidenced by the abolition of slavery and the rise of the civil rights movement. Today, major shifts are required in terms of rethinking how we do things and who we are in order to position the new technologies in ways that will best serve humanity.

Schwab and Davis (2018) argue that the lines between technologies and beings are becoming blurred, as new technologies are literally becoming part of us. They already influence how we understand ourselves, how we think about each other, and how we determine our realities. In a recent

paper, Professor Ganzevoort (2019) asked important questions about the role of these technologies: What will be the ontology and the reality that they give us about the transcendent and the sacred? Where will that ontology be positioned? In the dimension of the real, the unreal or in both? Schwab and Davis (2018) describe technologies that will influence the ontological shift as follows. The more neurotechnologies tell us about how the brain works, the more useful they are in a feedback loop that shapes how technologies interact with or mimic the brain's functionality. They improve the design of machine-learning algorithms. They have the potential to influence the brain in more precise ways, which could change our sense of self, redefine what it means to have experiences, and fundamentally alter the composition of reality. They can offer insights into not only how the brain interacts with the physical and social environment but also new ways to experience life. Schwab and Davis (2018) remind us that the brain is at the core of what makes us human. It enables us to perceive and make sense of the world, and to learn, imagine, dream, and interact with others. Enhancing human brains can improve productivity, education, training, and quality of life, especially among older citizens by prolonging their engagement in productive activities. Neurotechnologies can help us better understand the brain and how it works. They can also help us understand how to influence consciousness, mood, and behavior. All of these new insights may help us prevent certain diseases and improve how our brain works.

Virtual, augmented, and mixed technologies will blur the lines among artificial technology, the external world, and the role of human intuition. They will also give rise to existential questions about how humans experience the world. With these technologies, a person can realistically simulate being in another country. Amid the many technological possibilities is the example of Google Glass, which was introduced in 2013. This set of

glasses has a front-facing camera. How can one ask another person to take off his glasses if those glasses may be able to take pictures of others? What is socially acceptable from a privacy perspective? Virtual reality devices can be used to analyze users' responses by tracking their eye movements and head positions, and by monitoring their emotions. This data then can be used to influence human behavior. These technologies bring individual challenges as well. For instance, virtual reality devices could increase isolation by giving users access to fully enclosed worlds where they can interact with digital "beings" instead of real humans. These devices can erode social structures and family lives, and they can be used to manipulate citizens. For example, if a person's world has already been reduced to gadgets and virtual interactions, virtual reality devices will further alienate him or her from the real world.

We can be certain that all of these technologies will offer plenty of possibilities for creating value for business, but they may also increase societal inequalities by, for instance, enhancing feelings of non-inclusion or a lack of empowerment. They can undermine trust, collaboration, and empathy. Where these technologies can be used, they can also be misused.

What can we learn if we reflect on the previous industrial revolutions on human experience? All the industrial revolutions brought several fundamental changes with the introduction of new machines. We have started to use machines to new tasks which were otherwise not humanly possible, not doable or unthinkable. But we also started employing machines in tasks which we could have done otherwise ourselves. If we analyse the *First Industrial Revolution*, then one of the conclusions is that the machines impacted our use of our own motor senses. What is the spiritual analysis of the *Second Industrial Revolution*? Instead of relying on our direct perceptions through our input senses, we started to rely on recorded images, pictures, and data. You could

say that our input senses were captured. We started to compromise our preference for uniqueness and focused on mass production. Our sensitivity to diversity was reduced as templates of reality were presented. Industry started to treat humans as objects that could be manipulated. As our perceptions were reduced, we started to make many assumptions. From continuity in our feelings and perceptions, we shifted toward discrete categories. We started to classify our expressions using a few boxes and checklists.

The spiritual analysis of the *Third Industrial Revolution* results in the conclusion that we have started to lose the potential of our minds. Technology has begun to control the minds of customers. There is a race to capture human senses through high levels of marketing and propaganda. At the same time, we are putting a significant amount of effort into "getting our minds back" through mindfulness training and other techniques and spiritual practices. Many skills, such as bargaining and communication are being further reduced as we continually interact with internet bots. In the Fourth Industrial Revolution, we can augment the use of our senses through, for example, implants of artificial eyes in our bodies. These implants are not extra accessories that we can decide to use. Instead, they become part of ourselves. How will one be able to know what is the real self? The question of "who am I?" will have to be reconsidered many times in life. As contextualizing things again and again will become important, a special kind of intelligence is required—an intelligence that is contextual.

In the Fourth Industrial Revolution, we see the world through algorithms. In the Third Industrial Revolution, our mind was largely captured. It seems that our ability to make decisions will be diminished in the Fourth Industrial Revolution. Decision making or, in other words, exercising wisdom is a core human

activity. Wisdom, simply put, is *knowing when to do what and to what extent*.

How can we start to integratively embrace the wealth of possibilities that the Fourth Industrial Revolution offers? Where should we start? Some suggest again decoupling centralized systems into decentralized connected systems. In relation to our minds, I believe that this needs to be done in an integrative manner. For instance, by creating decentralized connected structures or integrative structures, by becoming entrepreneurial in the mind, and by contextualizing activities. If we do not contextualize the technologies that we develop, they become meaningless. Furthermore, we need to reinvent the potential of communities who can do things themselves. "Small is beautiful"—a statement made by economist Ernst Schumacher (2011)—seems more relevant than ever before. The speed of technological advancements is high. The speed of decentralization without losing integrativeness by simplifying and integrating activities is low. Given the possibilities offered by neurotechnologies and biotechnologies as well as virtual, augmented, and mixed reality devices, even such organizational innovation through integrative decentralization will not be enough. There is a need to organize activities in such a way that humans enhance their ability to connect to their existence beyond their perceived existence. Overall, at a deeper level, we need to use a kind of intelligence to make sense of all of the possibilities offered by the Fourth Industrial Revolution.

From the reflections that I have shared, I derive the notion that there are possibilities and there are challenges. However, I feel the outlook is positive given the experiences I have had with the potential of spiritual practices and our potential to connect to our existence—to our real selves. I view curiosity as an innate human trait that is complemented by an ability to reinvent ourselves. Several of the Vedic scriptures tell us that the

world is infinite. Therefore, I assume that there is room for everyone's creativity. The mind is captured by a narrative outside ourselves. As such, the way we see the world is very small. The Vedic scriptures suggest that if we meditate in a prolonged quiet sitting, the eternal truths can be revealed to us. There are many more ways of knowing the reality than we assume. Life is cyclic, as is believed in Hinduism. Even though the use of our motor senses, our input senses, and our minds have started to diminish in the three industrial revolutions, our cyclic worldview gives us the conviction that we can regain them all. After night, there is always day. Our cyclic worldview gives us hope that human beings will reinvent themselves as who they really are. They will realize their true selves again.

Research themes and activities

How do I want to enrich the field of spirituality with a Hindu worldview during the Fourth Industrial Revolution? The answer is simple: by building an integrative approach. The Fourth Industrial Revolution needs people who know how to intelligently drive technology in a more holistic and integrative way. It also requires the rebuilding of the narrative of who we are and why we exist as human beings. Spirituality is at the heart of both of these needs. I believe that integrative spirituality can be applied in different domains of society through different themes, some of which I wish to examine.

One such theme is *organizational innovation with integrative decentralized structures*,[14] which is based on research I carried out for the home health-care organisation Buurtzorg Nederland. I would like to conceptualize and experiment with

---

[14] Based on: Nandram (2016); Nandram (2017); Nandram and Koster, (2014); Kreitzer et al., (2015).

socio-technical-spiritual organizational designs as an expression of integrative spirituality in organizations.

Another research theme is *entrepreneurial decision making*.[15] Decision making through the use of integrative spirituality will be at the core of this theme. Research I have carried out with international colleagues has highlighted a new pattern of decision making that is neither fully rational nor fully based on intuition. Instead, it appears to be tending towards integrativeness. This needs further research. I aim to seek answers in the science of yoga to further understand such decision making.

I want to validate the insights from both research themes in more professional contexts and in relation to a variety of roles, such as social entrepreneurs and leaders. I also wish to build approaches to integrative decision making and organisational design that can be beneficial for highly technological organizations and experts who are developing the latest technological systems.

In addition to these more generic topics, a third research theme is *spiritual guidance and care.* What is the integrative view on spiritual guidance and care that is rooted in Hinduism? How does it, for example, enable geriatric care, palliative care, or end-of-life care among Hindus? Based on the latest developments in e-health, we can be assured that this context is not free from technological advancements. Here too several challenges need to be addressed. How do spiritual caregivers and pandits guide people from different age groups with existential questions in general? More specifically, how do they guide patients? Hinduism invites a multiple paradigmatic approach to caregiving. Inherently, it offers a broad range of interpretations and leaves space for contextualization through

---

[15] Based on: Nandram, (2016a); Nandram (2016b); Nandram et al., (2018). Nandram et al., (2019).

embodied knowing. What is the role of Hindu scriptures when dealing with such issues? What are the roles of Hindu rituals and family traditions? How can we rethink the concept of family in individualistic societies? In all of these themes, there will be a continuous attempt to work towards integrativeness in research, teaching, and practice.

In addition to these three themes, another theme is the further development of integrativeness through a scholarly approach. What research methodology does it facilitate? What epistemology does the Hindu worldview provide for building more understanding of the challenges and benefits of an integrative approach? I realize that any new approach takes a few decades to gain widespread acceptance. Therefore, my idea is to follow two parallel paths. One is the scholarly examination of possibilities and limitations of the integrative approach. The other is to empirically study existing projects and build intervention projects to examine the impacts of this approach. In this respect, several topics can be studied, such as the dilemmas faced by younger generations with Hindu backgrounds and ways of enabling them to find their professional place in society. Another focal area could be issues of collaboration among stakeholders in projects involving sustainable development goals and broad topics, such as the circular economy. How can an integrative approach help reconcile conflicts, foster inter-religion understanding and collaboration, help us understand societal issues, and provide inspiration for new methods and techniques? These are just a few possible areas of application for the integrative approach. Perhaps in addition to the World Economic Forum, we need such a thing as a World Integrativeness Forum.

I believe we need scholars, thinkers, entrepreneurs, inventors, and practitioners with a holistic and integrative mindset. With a hyper-specialized or single-discipline mindset, we may not get integrative solutions. Along with the revolution in

technology, we need to undergo a revolution in order to nurture our ability to connect to the existence beyond the existence that we perceive. I believe that this will unlock our full potential to understand who we really are and why we exist.

I would like to thank the executive board (*college van bestuur*), the board of deans, the faculty board, the dean and director of the faculty of religion and theology, and the Hindu Council Netherlands for their trust in naming me a full professor Hindu spirituality and society. I would also like to thank all others—my family, colleagues, friends, and students— who have contributed to this topic in so many ways.

Now I would like to proceed with a note of thanks in Dutch.

Dankwoord

Dames en heren, de inzichten die ik vandaag met u heb gedeeld zijn het resultaat van jarenlange denkprocessen en zijn gevormd door samenwerking met velen. Kennisontwikkeling kan nooit een eenmansactiviteit zijn. Mijn ideeën begonnen zich met name te ontwikkelen tijdens een project dat ik in 2006 samen met mijn collega wijlen Prof. Karel Samsom uitvoerde, waarin we de werkelijke drijfveren van ondernemers onderzochten. Onderwerpen die daarbij opdoken waren voor mij aanleiding voor verdere exploratie. Dit leidde tot onderzoek in de daaropvolgende jaren naar thema's zoals maatschappelijke verantwoordelijkheid, factoren voor ondernemerssucces, de wijze waarop ondernemers kansen genereren en intuïtie een plek geven, de rol van spiritualiteit. Het jaar 2006 was ook de periode dat Prof. Paul de Blot mij en Prof. Gerrit Broekstra vroeg om hem te ondersteunen bij zijn leerstoel business spiritualiteit aan Nyenrode Business Universiteit.

De jaren daarop ben ik in diverse samenwerkingen met wetenschappers uit diverse landen aan de slag gegaan met het thema spiritualiteit. Het is een grote eer om Hindoe spiritualiteit te begrijpen en toe te passen, een terrein waar grote intellectuelen zoals onze Rishis aan hebben gewerkt. Nu is het de taak om het intellectuele rijkdom van hen te begrijpen en te vertalen naar onze huidige maatschappij. Hiermee dienen wij de samenleving en geven wij onze studenten iets mee voor hun levenslange proces van leren, opdat zij begrijpen wat het betekent om mens te zijn in het technologisch paradijs.

De formele taak die mij gegeven is door het college van bestuur, onze rector magnificus, met steun van het college van decanen,

decaan en directeur van mijn faculteit, faculteitsraad, de sollicitatiecommissie en Hindoeraad Nederland pak ik met een groot genoegen en dankbaarheid aan. Ik dank hen voor het vertrouwen dat zij in mij stellen.

Ik dank mijn ouders waarvan mijn vader hier aanwezig is. Hij is 93 jaar oud en het is voor mij een grote eer dat hij hier in ons midden is. Ik ben zeer vereerd door de aanwezigheid van Prof. Paul de Blot, waarschijnlijk de oudste in deze zaal, al 95 jaar en nog steeds bezig met het thema spiritualiteit. Ik dank iedereen die hier fysiek aanwezig is. Iedereen die met gedachten hier aanwezig is. Ik dank Jos de Blok, oprichter van Stichting Buurtzorg Nederland, die vanaf 2011 interesse toont in mijn gedachten over holistisch kijken naar de wereld, integrating simplification als organisatieontwerp en integrative intelligence. Ik dank de mensen die deze dag hebben helpen organiseren. Ik dank mijn familie. Ik dank mijn collega's van de Vrije Universiteit, die van Nyenrode Business Universiteit, Stichting Buurtzorg Nederland, Buurtzorg India, Banasthali University, de afdeling Indian Ethos and Wisdom, Humanistic Studies department van IIT Banares Hindu University en collega's van de European Spirituality, Economics Society (SPES) Institute.

Ik dank Gaëtan Mourmant uit Vancouver en Iéseg School of Management in Lille, Frankrijk voor onze samenwerking op het gebied van het samenspel tussen ratio en intuïtie bij ondernemersbeslissingen. Ik dank Nicoleta Acantarai en David Miller van Princeton University voor de samenwerking die we starten over de behoefte en impact van religie en spiritualiteit op de werkvloer. Ik dank Arjun Shrestha van Kathmandu University voor het helpen van het vinden van diverse definities van spiritualiteit.

Ik wil mijn Indiase vrienden en collega's bedanken voor het vertrouwen, de liefde en de samenwerking: Prof Harsh Purohit ji, Ankur Joshi ji, Sukhada Sharma ji, Vishwanath Dhital ji, Puneet Bindlish ji. Soms benader ik Acharya ji Raghavendra Bhat voor zijn Vedische interpretaties van teksten of rituelen. Sukhada ji en Vishwanath ji helpen mij ook om Vedische teksten of concepten samen te analyseren.

Twee mensen die ik nog een keer expliciet wil bedanken zijn Puneet en Ankur, die onvoorwaardelijk voor mij klaar staan als ik weer eens denk dat ik een mooie toepassing zie van een inzicht uit een Hindoe geschrift. Ankur organiseert mijn workshops en colleges op Banasthali University en weet de studenten te stimuleren tot mooie interacties als ik daar ben. Wij werken gedrieën prettig samen aan het begrijpen en toepassen van spirituele concepten in de management context. Puneet en ik zijn soms verwikkeld in intense dialogen. Soms gaat het over de filosofische stromingen, of dingen die we om ons heen zien, of om onze persoonlijke spirituele ervaringen. Soms confronteren we elkaar met existentiële en epistemologische vragen: hoe weet jij wat jij nu beweert en denkt te weten en voor wie is dit inzicht betekenisvol? In deze intense dialogen herinneren we elkaar dat de meeste Hindoe geschriften in dialoogvorm zijn geschreven. In die geschriften werden ook nieuwsgierige, existentiële vragen gesteld en zijn de vragen even belangrijk als de antwoorden. Het zijn bijzondere ervaringen waarbij we beseffen dat kennis oneindig is.

Als ik analyseer wie welke rol speelt in mijn professionele leven dan is het een web van verbindingen. Een ieder draagt op een bepaalde manier een steentje bij. Om de opdracht van de

leerstoel zinvol en betekenisvol uit te voeren, wil ik vooruitkijken en ook nieuwe verbindingen ontdekken.

Ik dank mijn nieuwe collega's van de Vrije Universiteit van Amsterdam voor het gevoel dat zij mij geven namelijk dat ik niet alleen mijn wetenschappelijke bagage maar ook mezelf als mens mag meenemen. Ik was hier Assistent in Opleiding in de periode 1991-1995. Nu na zoveel jaar vind ik hier een context die zeer internationaal is en een mooie afspiegeling is van diverse culturen uit onze hoofdstad Amsterdam. En met de Zuidas naast de deur bevinden we ons op een bruisende plek voor onderzoek, onderwijs en valorisatie van onze kennis vanuit de leerstoel Hindoe spiritualiteit en samenleving. Ik doe mijn best en met jullie vertrouwen en liefde kan de impact van deze leerstoel groeien.

Tenslotte dank ik mijn gezin: mijn echtgenoot Wim voor de stille en stabiele basis thuis en zijn Noord-Hollandse nuchterheid, mijn zoon Navin en mijn dochter Sharan voor hun vragen over simpele dagelijkse dingen en grote vragen over het leven.

Realiserend dat ik slechts een klein stofdeeltje ben, in het alomvattende universum,

heb ik gezegd.

Samenvatting voor de praktijk

Technologische vooruitgang gaat tegenwoordig heel snel en het duurt niet lang meer voordat het mogelijk wordt om de mens te robotiseren. Door de explosieve toename van informatie worden burgers voor hun beslissingen steeds meer afhankelijk van extra technologische ondersteuning. Ook zal het normaal worden dat mensen uitgerust worden met implantaten zoals een oogimplantaat, waarmee de grens tussen de traditionele zintuiglijke werkelijkheid en kunstmatige werkelijkheid zal vervagen. Google Glass is een behoorlijk eind op weg naar de realisatie van dit toekomstbeeld. Deze ontwikkelingen met onder andere mixed reality, artificial intelligence en quantum computing zijn voorboden voor de Vierde Industriële Revolutie. Als gevolg van deze revolutie zullen existentiële vragen zoals 'wie zijn wij?' en 'waarom bestaan we?' in toenemende mate opnieuw worden gesteld.

Existentiële vragen behoren van oudsher tot het terrein van religie, waarbij gelovigen hun leven inrichten op basis van openbaringen, voorschriften en verklaringen uit de overgeleverde geschriften. Echter, het lijkt alsof tegenwoordig de aandacht voor religie in het algemeen afneemt, maar dat er wel een groeiende belangstelling is voor de spirituele ervaring. En deze behoefte aan spiritualiteit zal ten gevolge van de Vierde Industriële Revolutie sterk toenemen, waardoor het belang van de bestudering van spiritualiteit meer dan evident is. Het onderzoek binnen de leerstoel Hindoe spiritualiteit en samenleving geeft een aanzet daartoe. Van belang is een heldere definitie van spiritualiteit en voor een goede kennisontwikkeling is er behoefte aan een gezamenlijke wetenschappelijke taal omtrent spiritualiteit.

Hindoe geschriften beschrijven dat het universum en het menselijke bestaan erin met elkaar verbonden zijn. Deze notie dat alles met elkaar in verbinding staat, maakt ruimte voor een holistische kijk op de wereld waar diverse visies en doelen met elkaar kunnen worden verenigd. De leerstoel stelt een integratieve aanpak voor, gebaseerd op inzichten uit het Hindoeïsme, waarbij er bij voorbaat een streven is naar

een harmonisch evenwicht bij het begrijpen en oplossen van vraagstukken van welke aard dan ook.

De geschiedenis laat zien dat het vele decennia vergt om met elkaar te bepalen hoe we de wereld zien, welke waarden voor ons belangrijk zijn en hoe we het beste ernaar kunnen handelen. De huidige verandersnelheid van de technologie is daarentegen vele malen hoger. Daarom is het nu de tijd, om naast de World Economic Forum, die zich in de afgelopen 48 jaar actief heeft ingespannen voor economie en technologie, een World Integrativeness Forum op te zetten, zodat wetenschappers kunnen bijdragen aan de beantwoording van de existentiële vragen die de Vierde Industriële Revolutie oproept.

Appendix about the definitions

In the field of spirituality, 489 journal articles related to spirituality and workplace spirituality were found. All of these articles were first identified through Google Scholar using the search words "spirituality," "spirituality at work," "workplace spirituality," and "spirit at work". The articles were downloaded from Google Scholar, Research Gate, ProQuest, and Jstor. In ProQuest, a search was run in the dissertation topic field for PhD dissertations using the terms "spirituality," "workplace spirituality," and "spirit at work". This led to the downloading of 13 dissertations. In addition, literature outside the field of workplace spirituality was studied. Journal articles, PhD dissertations, and books were manually screened for definitions of spirituality. Subsequently, all definitions were entered into a spreadsheet. This step took place from October 2018 to February 2019 (phase 1). As the ontological profiling showed that the concept of spirituality was present in many other disciplines, additional literature was searched from May to August 2019 (phase 2). This resulted in the discovery of additional relevant books. They were screened for definitions, which were added to the spreadsheet. In total, 14 books, were used and 158 articles were selected from the databases, which resulted in 142 definitions for the analyses. Of these, 54 hailed from the management context, 29 from the context of religion, 20 from psychology, 17 from the well-being and therapeutical context, and the rest from culture, theology, human development, human values, humanistics, and consciousness studies.

References

Ashforth, B.E., Pratt, M.G. (2010). Institutionalized spirituality: An oxymoron? In: *Handbook of workplace spirituality and organizational performance,* (p.93-107). R. A. Giacalone & C. L. Jurkiewicz (Eds.). New York, NY: M.E. Sharper, Inc.

Ashmos, D.P., Duchon, D. (2000). Spirituality at work: A conceptualization and measure. *Journal of management inquiry*, *9*(2), 134-145.

Aurobindo S. (1971). *The Upanishads: Texts, Translations and Commentaries*, Chandogya Upanishad Verse 3.14.1. Upanishads.org, India. Retrieved from https://upanishads.org.in/upanishads/11/3/14/1

Aurobindo S. (1971). *The Upanishads: Texts, Translations and Commentaries*, Chandogya Upanishad Verse 6.2.1. Upanishads.org, India. Retrieved from https://upanishads.org.in/upanishads/11/6/2/1

Aurobindo S. (1971). *The Upanishads: Texts, Translations and Commentaries*, Chandogya Upanishad Verse 6.8.7. Upanishads.org, India. Retrieved from https://upanishads.org.in/upanishads/11/6/2/1

Aurobindo S. (1971). *The Upanishads: Texts, Translations and Commentaries*, Aitareya Upanishad Verse 5.3. Upanishads.org, India. Retrieved from https://upanishads.org.in/upanishads/8/5/3

Aurobindo S. (1971). *The Upanishads: Texts, Translations and Commentaries*, Mandukya Upanishad Verse 2. Upanishads.org, India. Retrieved from https://upanishads.org.in/upanishads/5/2

Aurobindo S. (1971). *The Upanishads: Texts, Translations and Commentaries*, Brihadaranyaka Upanishad Verse 1.4.10.

Upanishads.org, India. Retrieved from https://upanishads.org.in/upanishads/12/1/4/10

Canda, E.R., Furman, L.D. (2010). *Spiritual diversity in social work practice: The heart of helping*. Oxford University Press.

Capra, F. (1996). *The web of life: A new scientific understanding of living systems*. Anchor.

Duchon, D., Plowman, D.A. (2005). Nurturing the spirit at work: Impact on work unit performance. *The leadership quarterly*, 16(5), 807-833.

Benefiel, M. (2010). Methodological issues in the study of spirituality at work. *Spirituality and Business* (pp. 33-44). S.S. Nandram & M.E. Borden. Springer, Berlin, Heidelberg.

Benefiel, M., Fry, L.W., Geigle, D. (2014). Spirituality and religion in the workplace: History, theory, and research. *Psychology of Religion and Spirituality*, *6*(3), 175.

Bindlish, P.K., Nandram, S.S., Joshi, A. (2017). Integrative Intelligence as the Path forward. In *Managing VUCA Through Integrative Self-Management* (p. 263-287). Springer International Publishing.

Bindlish, P.K., Nandram, S.S., Gupta, R.K., Joshi, A. (2018). How to prepare the researcher for indigenous context: an integrative approach. *International Journal of Indian Culture and Business Management*, *17*(2), 221-237.

Bindlish, P.K., Nandram, S.S., Gupta, R.K. (2019). Definition schema for redefining leadership: an integrative approach. *International Journal of Indian Culture and Business Management*, *18*(1), 34-58.

Bindlish, P.K., Nandram, S.S. (2019). Manifestation of worldview in a metaphor. *International Journal of Business and Globalisation*.

Bouckaert, L., Zsolnai, L. (2011). *Handbook of Spirituality and Business.* Palgrave Macmillan, London.

Cacioppe, R. (2000). Creating spirit at work: re-visioning organization development and leadership–Part I. *Leadership & Organization Development Journal*, *21*(1), 48-54.

Dehler, G.E., Welsh, M.A. (1994). Spirituality and organizational transformation: Implications for the new management paradigm. *Journal of managerial psychology*, *9*(6), 17-26.

Fornaciari, C.J., Dean, L.K. (2001). Making the quantum leap: Lessons from physics on studying spirituality and religion in organizations. *Journal of Organizational Change Management*, *14*(4), 335-351.

Ganzevoort, R. R. (2019). Close Encounters of the Fourth Kind. A Theological Essay about New Technologies.in: J.A. van den Berg & R. Venter (Eds.). The 4th Industrial Revolution, emerging technologies and theology. Series: 3rd Edition of UFS Theological Explorations with series editor F Tolmie Publisher: SunMedia Bloemfontein.

Giacalone, R.A, Jurkiewicz, C. (2005). From Advocacy to science: The next steps in workplace spirituality and research. In: *Handbook of Psychology of Religion and Spirituality*. New York Guildford Press.

Giacalone, R.A., Eylon, D. (2000). The development of new paradigm values, thinkers, and business: Initial frameworks for a changing business worldview. *American Behavioral Scientist*, *43*(8), 1217-1230.

Gibbons, P. (2019). *Spirituality at work: a pre-theoretical overview*. M.Sc. in Organizational Behavior. Birkbeck College, University of London.

Govindacharya (2013). *Tarksangraha*, Chaukhamba Prakashan, Delhi.

Griffith, R.T.H. (1899). *The Texts of the White Yajurveda*, Verse 32.8, Internet Sacred Text Archive. Retrieved from https://www.sacred-texts.com/hin/wyv/wyvbk32.htm

Griffith, R.T.H. (1896). *Translation of Rigveda*, Verse 1.89.1, Internet Sacred Text Archive. Retrieved from https://www.sacred-texts.com/hin/rigveda/rv01089.htm

King-Kauanui, S., Thomas, K.D., Waters, G.R. (2005). Entrepreneurship and spirituality: integration of spirituality into the workplace. *Journal of management, spirituality & religion*, *2*(2), 255-274.

Karakas, F. (2010). Spirituality and performance in organizations: a literature review. *Journal of Business Ethics,* 94(1), 89-106.

Kinjerski, V.M., Skrypnek, B.J. (2004). Defining spirit at work: Finding common ground. *Journal of organizational change management*, *17*(1), 26-42.

Kreitzer, M.J., Monsen, K.A., Nandram, S.S, De Blok, J. (2015). Buurtzorg Nederland: a global model of social innovation, change, and whole-systems healing. *Global Advances in Health and Medicine*, *4*(1), 40-44.

Laszlo, E. (2017). *The Handbook of New Paradigm Research.* A publication of the Laszlo Institute of New Paradigm Research, Waterfront Press. Hampshire UK.

Mayr, E. (1981). *The growth of biological thought: Diversity, evolution, and inheritance*. Harvard University Press.

Mendenhall, M.E., Osland, J. (2012). *Global leadership: Research, practice, and development*. Routledge.

Miller, D.W. (2007). *God at work: The history and promise of the faith at work movement*. Oxford University Press.

Miller, D.W., Ewest, T. (2013a). The integration box (TIB): An individual and institutional faith, religion, and spirituality at work assessment tool. In *Handbook of Faith and Spirituality in the Workplace* (p. 403-417). Springer, New York, NY.

Miller, D.W., Ewest, T. (2013b). The present state of workplace spirituality: A literature review considering context, theory, and measurement/assessment. *Journal of religious & theological information*, *12*(1-2), 29-54.

Miller, D.W., Ewest, T. (2015). A new framework for analyzing organizational workplace religion and spirituality. *Journal of Management, Spirituality & Religion*, *12*(4), 305-328.

Milliman, J., Czaplewski, A.J., Ferguson, J. (2003). Workplace spirituality and employee work attitudes: An exploratory empirical assessment. *Journal of organizational change management*, *16*(4), 426-447.

Mitroff, I.I., Mitroff, I., Denton, E.A. (1999). *A spiritual audit of corporate America: A hard look at spirituality, religion, and values in the workplace* (Vol. 140). Jossey-Bass.

Mitroff, I.I., Denton, E.A. (1999). A study of spirituality in the workplace. *MIT Sloan Management Review*, *40*(4), 83.

Mitroff, I.I., Denton, E.A., Alpaslan, C.M. (2009). A spiritual audit of corporate America: ten years later (spirituality and attachment theory, an interim report). *Journal of Management, Spirituality and Religion*, *6*(1), 27-41.

Morrison A.J. (2000). Developing a global leadership model, *Human Resource Management*, Vol. 39, 117–131.

Nandram, S.S., Borden, M.E. (2010). Introduction: Exploring possibilities for a new paradigm. In *Spirituality and business* (pp. 1-13). S.S. Nandram & M.E. Borden (Eds.). Springer, Berlin, Heidelberg.

Nandram, S.S, Koster, N. (2014). Organizational innovation and integrated care: lessons from Buurtzorg. *Journal of integrated care*, *22*(4), 174-184.

Nandram, S.S. (2015). *Organizational innovation by integrating simplification: Lessons from Buurtzorg Nederland*. Springer International Switzerland.

Nandram, S.S. (2016a). Spirituality in the field of entrepreneurship. Spirituality-based intuition and entrepreneurship. In: *The quest for quality of life.* E. Hense, C. Hübenthal & W.M. Speelman (Eds.). Aschendorff Verlag GmbH & Co. KG, Münster. Germany.

Nandram, S.S. (2016b). How do spirituality, intuition and entrepreneurship go together? *Philosophy of Management*, *15*(1), 65-82.

Nandram, S.S. (2017). Integrating Simplification Theory for Navigating the VUCA: The Case of Buurtzorg Nederland. In: *Managing VUCA Through Integrative Self-Management.* S.S. Nandram & P.K. Bindlish (Eds.) (p. 263-287). Springer, Cham.

Nandram S.S., Bindlish, P.K., Keizer, W.A.J. (2017). *Understanding Integrative Intelligence.* International edition paperback, Praan Uitgeverij, Netherlands.

Nandram, S.S., Bindlish, P.K (2017). Understanding Integrative Worldview. In: *Managing VUCA Through Integrative Self Management* (p 25-41), S.S. Nandram & P.K. Bindlish (Eds.). Springer Publications.

Nandram, S.S., Mourmont, G., Norlyk Smith, E., Heaton, D.P., Bindlish, P.K. (2018). Understanding entrepreneurial decision-making by objectivizing subtle cues. *Journal of Management, Spirituality & Religion*, *15*(5), 398-423.

Nandram, S.S. Bindlish, P.K., Purohit, H., Joshi, A., Hingorani, P. (2019). Foundations for Social Entrepreneurship: An Integrative Indian Perspective**.** In: *Servant Leadership, Social Entrepreneurship and the Will to Serve.* L. Bouckaert & S.C. Van den Heuvel (Eds.). Palgrave MacMillan, Switzerland (in press).

Nandram, S.S., Mourmant, G., Bindlish, P.K., Sandra, D. (2019). Integrating Reason and Intuition: An Integrative Approach to Objectivizing Subtle Cues. In: *Developing Informed Intuition for Decision-Making*, 115. J. Liebowitz (Ed.).Taylor and Francis. NY, US.

Nelson, J.M. (2009). *Psychology, Religion, and Spirituality*. Springer Science & Business Media.New York, NY, US.

Overholser, J.C. (1994). Elements of the Socratic method: III. Universal definitions. *Psychotherapy: Theory, Research, Practice, Training*, *31*(2), 286.

Pandey, A., Gupta, R.K., Arora, A.P. (2009). Spiritual Climate of Business Organizations and Its Impact on Customers' Experience, *Journal of Business Ethics*, Vol. 88, 313- 332.

Pawar, S.B. (2009). Individual spirituality, workplace spirituality and work attitudes: An empirical test of direct and interaction effects. *Leadership & Organization Development Journal*, *30*(8), 759-777.

Petchsawang, P., Duchon, D. (2009). Measuring workplace spirituality in an Asian context. *Human Resource Development International*, *12*(4), 459-468.

Prabhupad S. (1971). *Bhagavad-gītā As It Is*, Verse 18.18. Retrieved from https://prabhupada.io/books/bg/18/18

Ray, M. L., Rinzler, A. (Eds.). (1993). *The new paradigm in business: Emerging strategies for leadership and organizational change*. Tarcher.

Roof, R. (2015). The Association of Individual Spirituality on Employee Engagement: The Spirit at Work. J*ournal of Business Ethics*, 130, 585-599.

Saks, A.M. (2011). Workplace spirituality and employee engagement. *Journal of Management, Spirituality & Religion,* 8(4), 317-340.

Schumacher, E. F. (2011). *Small is beautiful: A study of economics as if people mattered*. Random House.

Schwab, K. (2016). *The Fourth Industrial Revolution*. Penguin Random House Uk.

Schwab, K. Davis, N. (2018). *Shaping the fourth industrial revolution*. World Economic Forum. Switzerland.

Van der Kooij, J.C. (2016). Worldview and moral education: *On conceptual clarity and consistency in use. Dissertation*. Vrije University Amsterdam.

Vyas, R. (1992). *Nature of Indian culture*. Concept Publishing Company .Pvt. Ltd., New Delhi, India.

Waddock, S. A. (1999). Linking community and spirit: a commentary and some propositions. *Journal of organizational change management*, *12*(4), 332-345.

Walter D.C., (2009). *Exploring a definition of Leadership*. Doctoral Thesis, Educational Leadership, University of Montana, Missoula, MT.

Wheatley, M. (1992). Leadership and the new sciences. *Learning about organisation from an orderly universe.* San Francisco, CA.: Berrett-Koehler Publications Inc.

Zinnbauer, B.J., Pargament, K.I., Cole, B., Rye, M.S., Butter, E.M., Belavich, T.G. (1997). Religion and spirituality: Unfuzzying the fuzzy. *Journal for the Scientific Study of Religion*, 36, 549–564.

Zinnbauer, B.J., Pargament, K.I. (2005). Religiousness and spirituality. In: *Handbook of the psychology of religion and spirituality*, 21-42. Paloutzian, R.F. & Park, C.L. (Eds.). The Guilford Press, New York.

About Sharda Nandram

Sharda Nandram, born in Suriname, has been a Dutch resident since 1985. Her family originally hailed from Rajasthan, India. Sharda is a full professor of Hindu spirituality and society at the Faculty of Religion and Theology of the Vrije University of Amsterdam. She is also associate professor at Nyenrode Business University within the center for Entrepreneurship, Governance and stewardship. Sharda holds a position as adjunct professor at the Banasthali University, world's women's biggest residential university. She is also a non-executive director of Buurtzorg Edugreen Neighborhood Care India. Sharda is a member of the steering committee of the European SPES (Spirituality Economics Society) Institute and co-founder of Praan Group.

She has studied at the University of Amsterdam, where she received her bachelor's and master's degrees in both psychology and economics. She received her PhD in Social Sciences from the Vrije University of Amsterdam. Sharda has published more than 70 articles in academic and professional journals, and she has written about 30 book chapters, 21 books, about 40 reviewed papers, and 40 research reports. She is mentioned in more than 70 newspaper articles and magazines.

Sharda has more than three decades of research, consulting and entrepreneurial experience in the healthcare, banking and insurance, government, education, and sports sectors. She is the founder of the concept of "integrating simplification" and the co-founder of the concept of "integrative intelligence". She is well travelled with diverse cross-cultural experience gained through education, consulting, research and teaching engagements across Europe, South America, North America, Asia, South Africa, and Australia. In addition to her professional commitments, she enjoys taking care of her family—her Dutch husband and her two children.

Email: s.s2.nandram@vu.nl