



HRM and Technology

Are new generations prepared for the future?

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Acknowledgements

This master thesis is my last assignment at the university, which I see with a laughing and a crying eye. However, all good things come to an end – and so is my time at the University of Twente. After exactly five years of studying I leave the Netherlands to face a new challenge in the capital city of my home country Poland.

I was always highly interested in technology and IT, so choosing a topic which connects this passion with my master track Human Resource Management, seemed like a good idea to me. This symbiosis is e-HRM. When I started to research if HR curricula in Europe take account of the impact of technology on HRM the topic seemed relatively clear-cut to me. However, the truth was a little bit different. At some point the tremendous amount of varying information really challenged me to the edge but in the end I can say I am satisfied with the result. And, probably most important, I am proud of the fact that I did pioneer work in a domain which I regard as highly relevant for the future.

I would like to thank my family and the friends, who supported me through the five years of studying. I would like to thank everybody, who supported me with this master thesis, with the layout and the language – especially Michael Honvervogt, Mark Trippel and Frederic Hoffmann. At this point I would also like to thank my supervisors, especially Tanya Bondarouk, who always gave the right comments at the right time to support and guide me through the research and writing process.

Michael Golla, August 2013

Abstract

Information technology has a tremendous impact on the work of HR professionals which is often referred to as Electronic Human Resource Management (e-HRM) (Bondarouk & Ruel, 2009). E-HRM can be found in every field of work of HRM - for example, digitalization of training and development (Tatli, 2009), the possibility for employees to access personal records and payroll information online (Legnick-Hall & Moritz, 2003) or searching for possible job candidates via the internet (Lievens, Van Dam & Anderson, 2002). Another important aspect of e-HRM are Human Resource Information Systems (HRIS) which nowadays nearly every medium to large-sized company uses to digitally govern data information of their employees (Kavangh, Thite & Johnson, 2011). This influence of technology on HRM does not remain without consequences for the skill requirements for HR professionals and their daily work, so it has been proposed to take account of these recent developments in the contents of teaching in HR curricula.

In 2004 Hempel conducted a research on the contents of HR curricula in the US to examine if the contents of these curricula take account of the impact of technology on HR. The result was clear – e-HRM/HRIS - related topics were underrepresented in HR curricula in the US. The present paper replicates Hempels' (2004) research in the European context for the – according to the Eduniversal University Ranking – fifty best HRM masters in Western Europe. The results show that also in Western Europe and nearly ten years after the research of Hempel (2004) e-HRM/HRIS related content is rare in HR curricula. However, although a majority of HR curricula include IT-content, in most of the curricula this content is not directly related to HRM. On the basis of a series of interviews with program directors reasons for this have been identified and discussed. The program directors acknowledged the tremendous influence of IT on the work of HR professionals and argued that this influence will increase in the future. However, it was also argued that e-HRM should not be taught as a single course – mainly due to the fact that the field is very broad and difficult to cover in a single module. On the basis of these results, recommendations for a proper integration of e-HRM/HRIS in HR curricula have been made.

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1. Introduction

Companies are increasingly using information technology (IT) to support Human Resource Management (HRM) processes, often referred to as Electronic Human Resource Management (e-HRM) or Human Resource Information Systems (HRIS) (Marler & Fisher, 2013). HR processes that can be supported by IT can be found in nearly every subfield of HRM, e.g. recruitment and selection (Lievens, Van Dam & Anderson, 2002) or training and development (Tatli, 2009). Originally HRM deployed IT to support administrative processes (Bondarouk & Ruel, 2009), which is still the most common utilization of technology in HRM (CedarStone 2012). The 15th CedarCrestone HR Systems Survey (2012), a benchmark on HR technologies adoption, reports a positive attitude of large- and medium-sized employers towards investments on HR technologies with close to 50% for 2013. An outlook for the next three years has also been reported as positive with the highest scores in the application categories workforce analytics/planning (142%), social media tools (81%) and service delivery (57%).

Due to the digitalization of HR processes it has been argued repeatedly that the required competencies of HR managers and the interpretation of the role of HRM in companies is transforming (Bell, Lee & Yeung, 2006; Gardner, Lepak & Bartol, 2003; Haines & Lafleur, 2008). For this reason in 2004 Hempel examined HR training and education in US business schools in order to analyze if the content of teaching meets the requirements future HR generations will have to face regarding the impact technology has on the work of HRM. The study was conducted in two steps: the first step was to research the influence of technology on the work of HR professionals, the second to select a sample of HR curricula and examine whether the course contents took account of the changing role of HRM in companies. Hempel (2004) found out that most of the 22 selected HR curricula clearly lacked an emphasis on technology issues; seven of the examined HR graduate programs did not even offer an IT-related elective course. On the basis of the results advice was given on how the course contents can be adopted to the new skill requirements for HR professionals.

The work of Hempel (2004) has never been replicated until now, although reasons for this would be manifold. First, it is a common fact that technology is evolving extremely fast and it can be assumed that in 2013, nearly 10 years after the research of Hempel (2004), both the skill requirements for HR professionals and the education and training for HR professionals have changed due to technology. Second, the research of Hempel (2004) has been conducted in the USA and it would be useful to compare Hempels' (2004) findings with the current situation of HR education in another, for example, European context. A theoretical foundation for differences in education between the USA and another geographical location can be based on the neo-institutional theory, which states that institutions, which operate in the same context or environment, will become 'isomorphic', thus share similar practices and structures with each other (DiMaggio & Powell, 1983).

Therefore the research goal of this paper is to examine if HR education nowadays takes account of the interactions between technology and HRM. In addition to the analysis of the contents of HR curricula, background information interviews with program directors from renowned

European universities will be executed in order to analyze the contents of the curricula on the intentional level.

To meet the research goal four steps have been executed: the framework of this paper functions as a review on how the HR role transforms with IT and consequently on how skill requirements for HR professionals evolve with IT. Afterwards the method section describes the sampling process of HR education courses, the operationalization of the framework and furthermore the interview catalogue. Subsequently the results section examines the course contents of the selected courses on the basis of the framework and provides a comparison with the results of Hempel (2004). To conclude this paper, the discussion reflects on the current situation regarding HR education and gives advice on how HR education can be optimized in order to prepare HR practitioners for the skill requirements of the future.

2. Towards a conceptual framework

2.1 Interactions between HRM and technology – Definitions and goals of e-HRM

Human Resource Management departments began to deploy information systems for administration purposes, mainly to monitor employee records and for payroll activities, in the 1940s. By 1971 40% of all Fortune 500 companies made use of such systems and since the 1980s over 40% of all business companies made use of IS for HR purposes (DeSanctis, 1986). Nowadays the majority of companies use IS to support HR processes, at least in the domain of HR administration; the CedarStone HR Systems Survey for 2012-2013 states that 99% of organizations with over 200 employees use IS for payroll administration. Information systems which are used for HR purposes are called Human Resource Information Systems, short **HRIS**, commonly defined as

“[...] a systematic procedure for collecting, storing, maintaining, retrieving, and validating data needed by an organization about its human resources, personnel activities, and organizational unit characteristics” (Walker, 1982, as cited in Kovach & Cathcart, 1999).

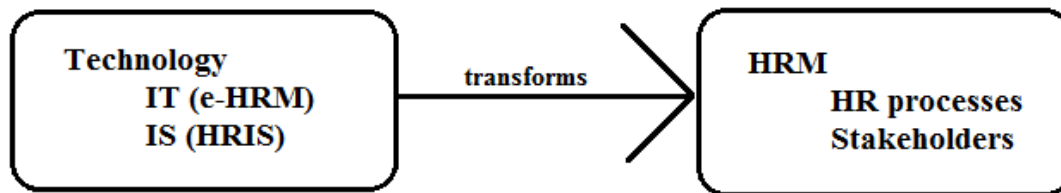
HRIS are mainly used to support the administrative work of HR departments; the users of HRIS are therefore mostly HR practitioners. However, due to the development and extension of the internet, IT was since the 1990s deployed to support additional HR processes – the term “e-HR” emerged back then to refer to business (HR) transactions using the internet (Legnick-Hall, 2003). The internet made it possible for HR departments, given the possibility to access the internet, to make information available online for managers and employees.

Today the term **e-HRM** is used in a broader sense, namely as

“an umbrella term covering all possible integration mechanisms and contents between HRM and Information Technologies aiming at creating value within and across organizations for targeting employees and management” (Bondarouk & Ruel, 2009).

In comparison to HRIS, e-HRM broadens the scope and touches the needs of all stakeholders (Bondarouk & Ruel, 2009), in the HR subfield of recruitment and selection e.g. possible job candidates (Lievens, Van Dam & Anderson, 2002). Marler and Fischer (2013) consider HRIS as an older concept and as part of the broader construct e-HRM. Therefore in this paper any reference to e-HRM automatically covers its sub aspect HRIS. Concluding, it is important to notice that today technology has a tremendous impact on the work of HR professionals, for example on how HR services are delivered or how stakeholders of HRM interact with each other (Figure 1). In the following it will be described for what purposes HR deploys IT, or in other words: what are the goals of e-HRM and does the emergence of e-HRM have an impact on skill requirements for HR professionals?

Figure 1: Transformation of HRM with technology



It has been repeatedly stated that cost reduction and an improvement in processing speed are major benefits of e-HRM (Guental & Stone, 2005; Lee, 2011; Kavanagh et al., 2011; Legnick-Hall & Moritz, 2003). A common framework for e-HRM goals is to divide e-HRM goals into three categories: operational goals, relational goals and transformation goals (Lepak & Snel, 1998; Figure 2). Operational goals refer mainly to a more efficient and effective use of HR resources, e.g. through the automation of routine tasks and practices like compensation. A possible consequence is cost reduction and processing speed. Furthermore HR can, due to less paper work, be freed partly from the administrative burden (Lepak & Snell, 1998). Relational goals refer to the possibility IT provides to delegate HR tasks to managers and employees themselves by providing them access to HR data bases and information. An example for this might be to give employees the possibility to change personal information like their address or the possibility to subscribe for educational developments via employee self-service portals. One of the present papers' explicitly stated goals is to research the impact of technology on the work of HRM and consequently how the role of HR transforms, which is strongly connected to the third category of e-HRM goals: transformation goals (Lepak & Snel, 1998). Transformational goals refer to the possibility for HR to transform due to the utilization of technology for HR

purposes. This third category is directly connected with the often expressed goal of HRM to become a business partner and to fill a more strategic position to support the company's business strategy (Gardner, Lepak & Bartol, 2003; Parry, 2011; Parry & Tyson, 2011). The rationale behind this goal is that e-HRM has the capacity to automate traditional HR tasks (predominantly administrative); as a consequence the HR personnel can focus on tasks which are more strategic.

Parry and Tyson (2011) conducted research on the desired goals and actual outcomes of e-HRM on the basis of the classification by Lepak and Snell (1998). They found out that the researched organizations partly met the stated goals. Companies reported an increase in operational effectiveness, improvement in service delivery or the delegation of HR tasks to line managers. Furthermore some companies expressed that HR has transformed and became more strategic, but this evidence was rather anecdotal (Parry and Tyson, 2011). Of special interest for the present paper are the hints Parry and Tyson (2011) provide on the factors which might affect the realization of e-HRM goals. They state that for e-HRM systems, in order to be successful, sufficient training for users of these systems and encouragement to engage with the system are crucial to realize e-HRM goals. Furthermore familiarity with technology has been mentioned as a factor of importance. Of Course these factors do not only touch HR practitioners but all stakeholders of e-HRM.

It is therefore reasonable to see it as a basic obligation and very beneficial for (future) HR practitioners to be familiar with the possibilities technology provides for HR. In other words: Why should HR students not already be made aware of e-HRM (-systems) during their studies? If universities want to provide state-of-the-art HR education it is their basic requirement to inform and educate their HR students in the best way to benefit from the potential of IT for HR purposes which is e-HRM.

2.2 Transformation of the HR function with IT – New skill requirements for HR practitioners

Over 20 years ago Nelson (1991) already pointed out the importance of technical education for all employees in an organization, especially concerning the use of IS/IT for competitive advantage, the fit between IS and the organization and the advantages technology might have for the organization in general. It has been recommended that universities pay more attention to IS-related education of all students, regardless of their field of study. However, Nelson (1991) also remarked that the degree to which employees should gain additional knowledge in technology is dependent on their function. The previous sections of this paper already provided some reasons why HR education is well advised to implement such recommendations. In the following more evidence for this will be presented.

In a research about the role of IT on the HR professional Gardner, Lepak and Bartol (2003) stated that the extended use of IT required them to provide IT-related support activities such as maintaining IT-based HR applications. For this reason Gardner, Lepak and Bartol (2003) argued that HR professionals can increase their contribution to the organizations' success if they supplement their knowledge regarding IT. In line with the propositions of Nelson (1991) they

note that IT is changing the needed skills for HR professionals and increases the desirability for IT training. Delorme and Arcand (2010) argue that organizations begin to outsource components of the HR function that are related to IT, because HR professionals lack skills in this area. Furthermore they emphasize what a contribution HR professionals could make to the development of HRIS, as they are the main stakeholders of the HRIS and know therefore best how important it is to develop a good HRIS (Delorme & Arcand, 2010). In a study by Bell, Lee and Yeung (2006) on the impact of e-HRM on professional competence in HRM over one third of the respondents remarked that HR professionals need to be comfortable with technologies such as the internet in order to fully integrate e-HR into the HR role. Furthermore Suen, Hsiao and Yang (2011) researched the link between IT competencies, HR competencies and job performance for HR professionals. The results indicate that IT competencies are positively related to HR competencies and job performance. Consequently they mention IT competencies as a key to improve HR competencies and job performance (Suen, Hsiao & Yang, 2011).

Researchers studied the possible effects of technology on the role of HR professionals in organizations, some directly addressing the strategic value of e-HRM. Bell, Lee and Yeung (2006) indicated that e-HRM made it possible for HR staff to shift their attention from routine, administrative tasks towards being a strategic partner. Similar findings were made by Haines and Lafleur (2008). Technology has also an impact on the administrative domain of HR. Hussain, Wallace & Cornelius (2007) researched the impact of HRIS on HRM professionals. They mention HRIS as an enabling technology which HRM professionals increasingly use to support strategic decision making. However, not all studies which were conducted to research the possible relationship between strategic orientation of HRM and the deployment of IT confirm that the two concepts are directly linked. Bondarouk and Ruel (2013) conducted a case study in a governmental organization which indicated that e-HRM was not allowing HR to become more strategic. It has been argued, similar to the study of Parry and Tyson (2011) that the success of e-HRM is conditional and depends on many factors. Conditions that were mentioned by Bondarouk and Ruel (2013) are among others fully integrated IT-Modules, communication about advantages and benefits of the e-HRM system and users, which are ready for the e-HRM system. To add more, a positive attitude towards e-HR or IT in General has been mentioned by Voermans and van Veldhoven (2006) as condition for e-HRM success. Figure 2 summarizes the most important conditions for e-HRM success. These conditions are important as they can be seen as indicators of how HR education should be adopted in order to increase the probability of success of e-HRM systems.

Figure 2: Conditions for e-HRM success

Conditions for e-HRM success (Bondarouk & Ruel, 2013; Parry & Tyson, 2010)
<ul style="list-style-type: none"> - sufficient training for users of the system - encouragement to engage with the system - communication about advantages and benefits of the system - familiarity with technology - positive attitude towards e-HRM

Summarized, the framework made clear that it is crucial for future HR professionals to have knowledge about the technologies which have an impact on HR. If HR aims to become a serious strategic business partner, it would be appropriate to begin at the universities who should adopt their HR curricula and prepare students for the new realities. On the basis of the framework, the following contents of teaching should therefore be covered in HR curricula:

- 1) Knowledge about the possibilities that derive from the deployment of technology for HRM
- 2) Knowledge about the potential of re-orientating the HR function with the help of technology (from administrative to strategic focus)
- 3) Knowledge about the conditions which have an influence on e-HRM system success; possible obstacles
- 4) Knowledge about the possible impact of the “relational goals” (Lepak & Snel, 1998) on other stakeholders than HR practitioners such as line managers
- 5) Basic IT skills and computer workshops
- 6) Practical hands-on experience with e-HRM systems (to be “ready” to use e-HRM systems, be familiar with the technology)
- 7) Assignments on how technology should be successfully adopted to add value to HR processes to apply and deepen the understanding of technology in e-HRM

3. Method

3.1 Research sample

This paper aims to replicate the study of Hempel (2004) in another geographical context. Europe has been identified as an appropriate context for this goal especially because of differences in the higher educational systems of both entities and the impact of the Bologna process on European higher education. In the following the higher education systems will be compared and the rationale behind replicating Hempels' (2004) work in Europe will be pointed out.

3.1.1 Differences in higher education systems of Europe and the US

Traditionally in Europe higher education is regarded a public service while in the US it is mostly a private matter which is strongly influenced by market rules (Aguilera-Barchet, 2012). Consequently this brings a lot of differences regarding the way universities provide education and the way they are managed.

As in Europe universities are regarded a public service these institutions are predominantly financed by public funds provided by the taxpayers and just to a small extend by the students themselves. In the US it is the other way around as students have to pay for their education for a high extent with their private money; on average an US student pays 14.000\$ a year if he attends a public university. For a private university students have to pay 40.000\$ on average, nearly three times that much (Aguilera-Barchet, 2012). In contrast to this in Europe tuition fees are relatively low; in Germany for example the tuition fee for a full-year registration is 100€ (140\$), in France 237€ (328\$). Of Course there are others example as in the UK EU students have to pay 3.700€ (5000\$) for a full-year registration at a public universities which is among the highest tuition fees in Europe. However, because of the recently described way of financing higher educational institutions European universities have considerably less funds than US universities (Aguilera-Barchet, 2012).

Another crucial difference between the two higher education systems is the influence of market forces. In the United States higher education institutes are under a stronger influence of the market and are traditionally more concerned about a close connection to the labor market than European Universities. Aguilera-Barchet (2012) argues furthermore that universities in the United States are more practically oriented and tend to focus on job preparation, while in Europe higher education is more interested in the development of the intellectual capacity of students. Aguilera-Barchet (2012) describes the higher education system of the United States furthermore as largely meritocratic. This meritocracy is created on the one side by competition and the recently described influence of market forces, and on the other side because of a very high diversity of possibilities for students such as community colleges and vocational schools (Aguilera-Barchet, 2012).

It is probably because of these reasons that the United States beat Europe in the three most influential international university rankings: the Academic Ranking of Universities (Shanghai

Jiao Tong University, 2012), the QS World University Rankings (Quacquarelli Symonds, 2012) and the Times Higher Education World University Rankings (Times Higher Education, 2012). In each of these rankings there is an overwhelming majority of US higher education institutes in the top 50. Furthermore the United States take the first place in the Universitas 21 Ranking of Higher Education Systems, which is the only ranking which evaluates higher education systems of countries directly (Universitas 21, 2012).

Of special interest in the context of this rankings is the Bologna process which has been launched in Europe in 1999, among other reasons in order to 'match the performance of the best performing systems in the world, notably the United States and Asia' (European Commission, 2011). The Bologna Process had a tremendous influence on higher education in the participating European countries, among others through the introduction of the Bachelor/Master system and the implementation of a common system of credits (ECTS) which was introduced in order to increase student mobility and make degrees more comparable. These recent developments in European higher education make a replication of Hempels' (2004) findings in the European context even more valuable, as it can be analyzed if European higher educational institutions 'match the performance' of the USA in the context of the subject matter of the present paper, namely if technology-related content of teaching is sufficiently represented in European HR curricula.

3.1.2 Choice of research sample

The number of higher education establishments in Europe is approximately 4000 (European Union Website, 2003). Researches pointed out that e-HRM adoption in Europe is quite diverse (Strohmeier & Kabst, 2009; Panayotopoulou, Galanaki & Papalexandris, 2010). Strohmeier and Kabst (2009) found that in Eastern European countries, though they have a generally lower gross domestic product, e-HRM adaption is unexpectedly higher than in Western European countries. Panayotopoulou, Galanki and Papalexandris (2010) researched e-HRM adoption in Europe on the basis of Strohmeiers' (2007) categorization of e-HRM systems in front-end and back-end systems of e-HRM. Front-end systems are referred to as web-based systems which primary task is to connect actors, e.g. through HR portals or self-service systems (Strohmeier, 2007). Back-end systems are often Human Resource Information Systems and used to support the front-end systems by storing, retrieving and processing data (Strohmeier, 2007). Hence, Panayotopoulou, Galanki and Papalexandris (2010) came up with three clusters for e-HRM adoption: a Northern European, a Central European and a Southeastern European cluster. For the Northern European cluster which comprises the UK, Switzerland and the Scandinavian countries a mediocre adoption of back-end systems and a high deployment of front-end systems has been found. The Central European cluster, which comprises the countries Germany, France and Austria showed a higher deployment of back-end systems than the previously described northern cluster and a higher deployment of front-end systems in general. Finally, the Southeastern European cluster comprised by Italy, Slovenia, Spain and Greece showed the highest adoption rate of back-end systems and the lowest adoption rate of front-end systems (Panayotopoulou, Galanki & Papalexandris, 2010). All in all, e-HRM adoption in Europe is quite diverse which makes a sampling process of HR courses to get a representative

picture of the current situation of HR education in Europe quite difficult. We therefore chose to select our research sample on the basis of a university ranking.

In the previous section various rankings have been mentioned which see the United States ahead of Europe regarding higher education systems so it would be quite interesting to analyze if Europe's "best" master programs can compete with the institutions Hempel (2004) chose for his research. It has therefore been chosen to select the master curricula on the basis of the Eduniversal Best Masters Ranking from 2012-2013 (Eduniversal, 2012). The Eduniversal Best Masters Ranking is a master program ranking by the rating agency SMBG, which is specialized in higher education. SMBG was founded in 1994 to provide information on the best business schools and is located in 9 geographical regions (Africa, Central Asia, Eastern Europe, Western Europe, Eurasia/Middle East, Far East Asia, Latin America, North America and Oceania).

The Eduniversal Best Masters Ranking is particularly suitable for our research purposes as it is the only ranking which evaluates master programs directly and not the institutions. The ranking is based on these three criteria:

- The reputation of the program
- The salary of the first employment
- Students satisfaction

For each of the three criteria the master program can be assessed with a maximum of five points. The reputation of the program is determined by the opinions of HR managers (2,5 points) and the number of the Eduniversal Palmes of the school (also 2,5 points; Palmes are indicators of the quality of an institution in another ranking of Eduniversal).

The salary of the first employment is provided by the universities and verified by Eduniversal. Furthermore Eduniversal takes account of differences between countries as the salary is indexed to the average annual salary per inhabitant.

To determine student satisfaction Eduniversal sends recent graduates a questionnaire with questions regarding their satisfaction with their completed master program. Eduniversal regards a percentage of 10% answered questionnaires as sufficient to give a mark for this criterion.

The ranking of the best HR master programs for Western Europe, which consists of 50 master programs (Appendix A), functioned as sample for this research. The ranking for Eastern European HR masters consists of only 5 master programs (Eduniversal, 2012). This ranking was not included in our research in order to keep the sample balanced.

3.2 Research design

To answer the research question it has been chosen to combine several research methods. Combining research methods, triangulation, is done to increase the validity of the research (Scandura & Williams, 2000).

Hence, to reach the research goal the research was executed in two ways: by analyzing the contents of the HR curricula (document analysis) and by executing semi-structured interviews with the program directors of the master programs.

We executed the document analysis first to base the interviews on the results of not just the framework but also the results of the document analysis. While the document analysis constitutes the main part of the research, the interviews provided informative insides on the program directors' views on the impact of IT on the work of HR professionals and reasons for the implementation (or lack thereof) of appropriate contents in the HR curriculum of their business school.

3.2.1. Document analysis

To analyze the contents of the HR curricula of the research sample several steps have been conducted for each master program of the research sample. A scheme for the process of analysis is visualized in Figure 4.

Before the document analysis started we operationalized the contents of the framework which can be found in the table below.

Table 1: Operationalization of the framework as basis for the analysis of the HR curricula

Construct	Definition
Knowledge (1)	Knowledge about how HRM/HR processes change with the deployment of IT/IS (Gardner, Lepak & Bartol, 2003)
Knowledge (2)	Knowledge about the potential of IT/IS for HRM, i.e. goals of e-HRM (Bell, Lee & Yeung, 2006)
Knowledge (3)	Knowledge about the influence the transformation can have on other stakeholders than HR, e.g. line management (Lepak & Snel, 1998)
Knowledge (4)	Knowledge about the conditions that have an influence on a successful deployment of IT/IS for HR (Bondarouk & Ruel, 2013; Parry & Tyson, 2010)
Skills (5)	Basic IT skills and computer workshops in order to be comfortable with technology
Skills (6)	Practical hands-on experience with e-HRM/HRIS systems

Skills (7)	Assignments on how technology can be successfully adopted to support HR processes
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The first step was to search for the website of the HRM master of the university. In some cases a link to the website of the HRM master of the university was already provided on the list of the Eduniversal University Ranking (Eduniversal, 2012). If this was not the case, a search via Google with the search term “X (University name) X (Name of the master)” led to the website of the HRM master. With the exception of two master programs all master programs could be found and identified as the programs that are stated in the ranking (Appendix B).

Second it was checked if the information on the master was provided in English. If this was not the case, the program director, the contact person (as stated on the website) or the information request service had been contacted (see Appendix C for example letters) and asked for information on the curriculum and the contents of teaching of the master program. Furthermore three of the master programs have been dropped because they were not HRM to the extent that is required for the purpose of this research.

If the information was provided in English it has been checked if there was any information on which courses (in the UK often called *modules*) are included in the HR curriculum and if there was any content on the courses available. In addition to this it has been searched for the course catalogue of the respective university in order to gather detailed information on the courses of the curriculum. In many cases the course catalogue has been found via Google (e.g. for the Erasmus University Rotterdam). Examples for search terms are “X (university name) course catalogue”, “X (university name) course modules”, “X (university name) course units” or “X (university name) course units”. If the information collected was sufficient for analysis (see Appendix D for examples) it has been moved to the final step, the analysis of the HR curriculum. We have put on emphasis on collecting information on every single course of the curriculum as we did not perceive the course names as sufficient to evaluate if the master program included IT-related content.

Here is an example to illustrate this rationale: if a master program contains a course named for example “Management of a Human Resource Information System” without further explanation it is either way obvious that this master program contains IT-related content for HR purposes. However, if a master program of another business school contains a course named “Current Issues in HRM” it is unclear if the course contains content on recent HR issues which are IT-related like for example e-HRM. Assumed we consequently evaluate the first master program as IT-related and the second program not (because of insufficient information) it is possible that we get a distorted picture of the contents of teaching of the research sample.

Therefore in case information on the course contents was not sufficient the program director, contact person or information request service have been contacted and asked to provide the required information (Appendix C). The HR curriculum was only accredited for analysis if there was sufficient information on every course module available.

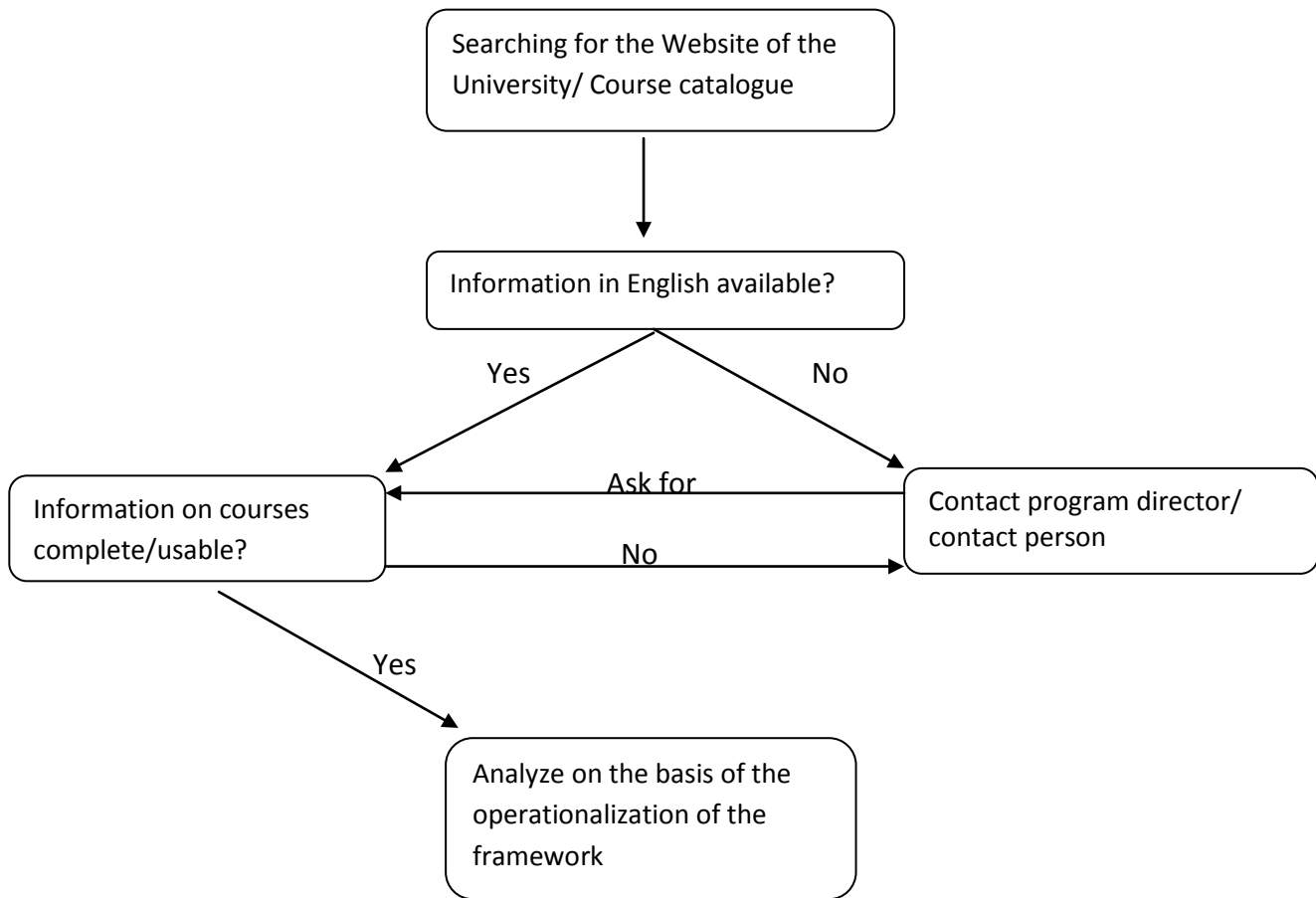
For 25 of the 50 universities sufficient information for analysis could be collected (see Table 3 for the complete list). For analysis the information on the course contents have been examined carefully and compared with the operationalization of the framework (Table 1). It has been checked if and in which way the respective HR curriculum covers the content of the framework. If a technology course was included in the HR curriculum it has been evaluated how much of the content of the course was technology related, as the range was quite high. Furthermore it has been evaluated in which way the technology-related course covers the operationalization of the framework. On the basis of the findings of the document analysis the question catalogue for the interviews was created which will be described in the following.

The document analysis has been conducted from 7th to 16th and from 24th to 29th June, 2013. Furthermore the results of the document analysis has been completed and finalized from 22nd to 24th July, 2013.

We had to conduct the document analysis in three periods of time because of two reasons; first, because we had to wait for answers to our requests concerning the contents of the HR curricula and secondly because the document analysis raised unexpected issues regarding the categorization of contents and the sheer mass of information. E-HRM is a very broad field and can be easily confused with contents which are somehow technologically related but are neither utilized for HR nor for business processes.

Let us take e-Learning as an example: universities utilize the computer often to support learning processes of students which is per definition a form of e-Learning and thus in a wider sense part of e-HRM. However, in such a case e-Learning is utilized as a teaching tool of the institution but is no part of the content of teaching itself. The first period of analysis raised therefore questions on where to draw the line and how to categorize. Furthermore we noted that the amount of IT-related content varied drastically; an entire course on the management of Human Resource Information Systems cannot be equated to a course which deals with “technological influences on HR” as a small sub aspect in the context of a general introductory course on HRM. In order to take account of such variations we categorized the amount of IT-related content (from 20% to 100%). Thus the second period of document analysis dealt with these issues, while from 22nd to 24th July the whole process was reviewed and finalized.

Figure 4: Scheme for the Document Analysis of the HR curricula



3.2.2. Interviews with program directors

To get an in-depth picture and background information on the HR curricula, the program directors which are responsible for the contents of teachings of the HR curricula, had been contacted via mail to request an interview. It has been chosen to conduct semi-structured interviews to create an open conversation atmosphere in which all associations regarding the subject matter could be mentioned and discussed.

In total four interviews had been conducted. It was difficult to find a large population for the interviews as the sample group was quite low (25) and the number of HR master programs providing IT-related content for HR purposes very low (8). We contacted the program directors responsible for the master programs with IT-related content first and got two positive reactions for an interview. To get a balanced picture, we conducted two interviews with program directors responsible for a HR curriculum containing IT-related content (for HR purposes) and two interviews with program directors responsible for HR curricula which do not offer such content. The research sample can be found in Table 2.

Table 2: Sample for the interviewees

University	Program Director	IT-related course
Athens University of Economics and Business	Prof. Nancy Papalexandris	Yes
FH Pforzheim University	Prof. Günther Bergmann	Yes
University College Dublin	Dr. Majella Fahy	No
LMU München	Silke Bergmann*	No

*Study Coordinator

The interviews with the two German universities had been conducted in German because due to the fact that German is the native language of both the program directors of the German universities and the author of this article this allowed both interviewer and interviewee to conduct a more open and effortless conversation on the research topic. After a short introduction, the main part of the interview covered three aspects: (1) the assessment of the impact of IT on the work of HR professionals, (2) possible changes regarding skill requirements due to these developments and (3) questions about the composition of the curriculum and an evaluation of the curriculum in the context of the discussed developments.

It was important for us to discuss the impact of IT on the work of HR professionals with the program directors to assess their point of view regarding this topic which has certainly an influence on the content of the curriculum. Furthermore the next step, a discussion on the (possible) changes in skill requirements for HR professionals, was seamlessly leading to the actual subject matter of this research: if HR curricula take account of technological developments.

Every interview ended with formal questions and feedback on the interview (see Table 3 for the full interview protocol). After the interview the interviewer immediately transcribed the

content of the interview as the memory was still fresh. Furthermore citations for the results have been chosen. The interviews have been conducted in the period from 5^h to 12th July via Skype and telephone. The duration of the interviews ranged from 25 to 35 minutes.

Table 3: Interview protocol

Part	Interview questions / Content
Introduction / Warm Up	<ul style="list-style-type: none"> - Interviewer thanks for agreement to do the interview - Interviewer introduces himself and the topic of the thesis - Interviewee introduces himself/herself and explain his/her position at the university and personal experiences with this position
1 st part: Assess developments	<ul style="list-style-type: none"> - How do you see the impact of information technology on the work of HR professionals today? - In your view, how will the role technology plays for HRM, develop in the future?
2 nd part: Assessment of skill requirements	<ul style="list-style-type: none"> - What kind of skills do you assess as important for an HR professional in relations with technological developments? - Do you think the skill requirements of HR professionals change due to the deployment of technology? - Do you see a relationship between IT competencies and HR job performance?
3 rd : Composition and evaluation of HR curricula	<ul style="list-style-type: none"> - On which basis was your HR curriculum composed? What are the goals of the program? - In which way does your HR curriculum take account of recent developments in the field? - Do you see any shortcomings in the contents of teaching in your current HR curriculum? - How can future HRM students be best prepared for the mentioned developments?
Ending the interview	<ul style="list-style-type: none"> - Interviewer thanks for the interview - Interviewer asks if the university may be mentioned by name in the report - Interviewer asks for feedback

4. Findings

4.1 Findings of the Document Analysis

Table 3 shows the results of the document analysis. 25 of the 50 universities provided sufficient information on the content of their HR curriculum for analysis (see Appendix B for a detailed documentation of the hierarchical breakdown of the research sample). The extent of information ranged from acceptable, which required basic information on the single courses, to very detailed, which included extended information over course goals and learning outcomes (Appendix C for examples).

The table illustrates the rank of the master program in the Eduniversal Best Masters Ranking for HR, the name of the business school, the exact name of the master program, the name of the IT-related course (if present) and if the course was a core or elective course of the HR curriculum. Furthermore the last two columns indicated which percentage of the master course was IT-related and in which way the course can be related to the framework.

Table 3: Results of the Document Analysis

Rank	Business School	Master program name	IT-related course / Core (C) or Elective (E)	% of IT-related content	Framework related content
1	London School of Economics and Political Science	Msc International Employment relations and Human Resource Management	No		
4	Erasmus University Rotterdam	Msc Human Resource Management	Yes, Current Issues in HRM (C)	20%	e-HRM
5	The University of Manchester	Human Resource Management and Industrial Relations Msc	Yes, Research Methods for Organizations (C)	40%	Basic IT-Skills
9	University of Warwick	MA Industrial Relations & Managing Human Resources	No		
11	BI Norwegian Business School	Msc in Business and Economics Major HRM	Yes, Research Methodology for Organizational Psychology (C)	20%	Basic IT-Skills
12	University College Dublin	Msc in Human Resource Management	No		
21	Athens University of Economics and Business	Msc in Human Resource Management FT	Yes, HR Information Systems (C)	100%	HRIS
24	Lancaster University	MA Human Resource & Knowledge Management	Yes, The Production of Managerial	60%	Basic IT-Skills

			Knowledge III (C)		
25	FH Pforzheim University	MBA Human Resource Management & Consulting	Yes, e-HRM (mail wyslany)	100%	e-HRM
26	Brunel University	Msc in Human Resources and Employment Relations	No		
27	University of Glasgow	Management with Human Resources Msc	Yes, Financial Information Management (C)	20%	Managing Information Systems
28	Aston University	Msc Human Resource Management & Business	Yes, Research Methods in Human Resource Management & Business and Organizational Behavior (C)	20%	Basic IT-Skills
29	Universidad Carlos III de Madrid	Master in Human Resource Management	Yes, Commercial Management (C)	20%	Other IT-related content
30	University of Groningen	Msc Human Resource Management	Yes, Service Operations (E)	20%	Other IT-related content
37	University of Leeds	MA Human Resource Management	No		
38	LMU München	Master in Human Resource Management	No		
40	Sheffield Hallam University	Msc International Human Resource Management	Yes, Information and Financial Management for HRM (C)	80%	HRIS
41	Bradford University	Msc in Human Resource Management	No		
43	University of Birmingham	Msc in Human Resource Management	Yes, Human Resource Management (C)	20%	e-HRM
44	ISCTE Business School	Msc in Human Resources	Yes, Personal Management and Development (C)	20%	e-HRM (e-Learning)
45	University of Durham	Msc Management (Human Resource Management)	Yes, Business Transformation through Information Systems (E)	100%	Managing Information Systems
46	Cyprus International Institut of Management	Msc in Human Resource Management &	Yes, Managing Information Systems	100%	Managing Information

		Organizational Behaviour	(E)		Systems
47	Newcastle University Business School	MA International Human Resource Management	No		
48	Pompeu Fabra University	Master in Human Resource Management in Organisations	Yes, Postgraduate Course in Training and Developing Human Capital (C)	20%	e-HRM (e-Learning)
50	Dublin City University	Msc in Human Resource Management	Yes, People Management & Development (C)	20%	e-HRM & HRIS

In Table 4 it can be seen that several of the master programs are not pure Human Resource Management masters. In fact, the picture of the master programs is quite diverse (Table 4).

Table 4

Master programme type	Quantity
Pure HRM master	14
Mixed with General Business Courses	3
International HRM	2
HRM & Industrial Relations	2
HRM & Employment Relations	2
HRM & Consulting	1
HRM & Knowledge Management	1

All in all it became evident that the majority of HR curricula offered courses which were at least to some extent IT-related, but only a minority of these courses was directly linked to HR purposes (Table 5).

Table 5

IT-related content	Quantity
E-HRM	6*
HRIS	3*
Management of an IS	3 (2 elective)
Other IT-related content	6 (1 elective)
No IT-related content	8
(No HR-related IT-content)	(17)
Total number of curricula	25

*The course "People Management & Development" from Dublin City University deals with both e-HRM and HRIS

Courses like *Research Methodology for Organizational Psychology*, which is a core course in the HR curriculum of the BI Norwegian Business School, teach students how to use the computer as a research tool. Such courses teach the students basic IT skills, often to prepare them for their master thesis. This is of course beneficial, but not directly related to business issues.

Other courses like *Business Transformation through Information Systems* of the University of Durham are in a wider sense related to the impact of technology on HRM, but do not provide IT-related contents for HR purposes in particular. We found three of such courses in our sample which matches the quantity of courses Hempel (2004) identified as general MIS courses. At this point it is important to remind the reader of the fact the Hempels' (2004) research sample consisted of 22 HR curricula, while our sample included 25.

Only six of the master programs offered courses which are related to e-HRM. Furthermore e-HRM was in these courses predominantly taught peripheral and sub-aspect of a more general course on HRM. The only course solely focusing on e-HRM was the course *E-HRM* of the HS Pforzheim University from Germany. This course covered such diverse aspects of e-HRM as E-Recruiting, E-Learning, Employee Self Service or the HR Service Delivery Model.

Two of the courses which we identified as e-HRM-related were focusing solely on one aspect of e-HRM, e-Learning. Hempel (2004) found no courses on e-HRM in US HR curricula, which is probably due to the fact that e-HRM was an even younger subject back then and less known than in 2013. The "older concept" HRIS (Marler and Fischer, 2013) was more present than e-HRM back then and was therefore the focus of Hempels' research (2004).

Remarkable is that only three universities offer a course on HRIS, with only two of these courses focusing on HRIS as a core topic and one dealing with HRIS as a sub-item. As an example the core course *HR Information Systems*, included in the HR curriculum of the Athens University of Business and Economics, is a typical course on HRIS which includes issues such as the development of an HRIS and the possibilities HRIS offer HR departments.

In contrast to our findings, Hempel (2004) found that ten out of 22 curricula offered an HRIS-related course with five courses offering HRIS as a core requirement. However, only six of ten courses which Hempel (2004) identified as HRIS-related were actually courses on HRIS (NB: this remark will be discussed in detail in the discussion).

Summarized, it became evident that IT-related courses which are directly linked with HRM are underrepresented in HR curricula. E-HRM is a topic which is in most courses, if mentioned, only a peripheral subject matter (see Table 3 for estimations of percentage of IT-related content). Furthermore only a very sporadic number of HR curricula deal with Human Resource Information Systems as a core topic. In contrast to this Hempel (2004) found at least six HR curricula (out of 22) which were dealing with HRIS – ten years ago.

4.2 Findings of the interviews

The document analysis showed that IT-related content for HR purposes is underrepresented in Western European HR curricula. In order to get background information on these findings program directors from four of the 25 researched universities were interviewed.

In the previous section the courses *E-HRM* from the HS Pforzheim University in Germany and the course *HR Information Systems* from the Athens University of Business and Economics were mentioned. Interviews with the program directors responsible for the HR curricula of these business schools could be arranged.

Furthermore we conducted two interviews with program directors from universities which do not offer IT-related courses for HR purposes.

The in-depth semi-structured interviews provided additional insights on the background of the HR curricula and an assessment on the development of the impact of IT on HRM. The intention behind the structure of the interview was to find out how the program directors assessed the relationship between IT and HRM and what effect this relationship has on the work of HR professionals including possible changes in skill requirements. Furthermore it was discussed if this relationship is reflected in the HR curricula of the respective university and if changes in the future can be expected. In the following the results will be presented in the following order:

- The program directors' assessment of the impact of IT on HRM
- Possible changes in skill requirements for HR professionals due these developments
- Composition and evaluation of the HR curriculum
- Summarization of the interview results

Citations for the first two sections were chosen on the basis of two aspects: (1) answers which very clearly reflect the general tonus of the interviews and (2) unique opinions which added value to the overall context of the research with high explanatory power. Citations for the last – and most important – section were selected based on the appropriateness of the statement to explain the intentions behind the choice to (not) include IT-related content for HR purposes in HR curricula.

4.2.1 Assessment of the impact of IT on HRM

All interviewees evaluated the impact of technology on the work of HR professionals as tremendous and very important. Furthermore it has been mentioned several times that the impact of technology on HRM is even bigger in larger organizations.

“Ich sehe einen sehr starken Einfluss von Technologie auf das Personalmanagement, und zwar vor allem in größeren Unternehmen im Bereich Shared Services.” (Silke Biermann, LMU München)

“I see a very strong impact of technology on HRM, especially in larger organizations in the domain of Shared Services.”

However, this impact has not always been evaluated as positive. It has for example been mentioned that due to technology HR processes are outsourced which is not always beneficial for HR.

“A lot of functions had been outsourced. [...] In the UK there is a very lively debate how HR can reclaim that territory. [...] Often they (the HR practitioners) don't have the confidence to fight for their more strategic role.” (Melanie Simms, University of Warwick)

Furthermore the interviewees saw the impact of IT on HRM increasing in the future. As an example it has been mentioned that new media like Android-Apps could play a role in the near future.

“Ich denke vor allem in der Personalentwicklung könnte die IT-Komponente noch weiter zunehmen. Nehmen wir zum Beispiel Apps. Der Trend geht ja immer mehr in Richtung Learning on Demand und ich denke dass das sicherlich einen Einfluss auf die Personalentwicklung haben kann.” (Günther Bergmann, FH University Pforzheim).

„I think the impact of IT can especially increase in the domain of human resource development. Let us take for instance apps. There is a trend towards Learning on Demand and I think that this can surely have an impact on human resource development.”

4.2.2 Possible changes in skill requirements for HR professionals

Generally it has been evaluated that the skill requirements for HR professionals change with the deployment of technology. However, this development has been put into perspective.

“I think that we see this gradually, that this is changing. Although in Greece it is not something what is necessary for someone who wants to start a career in HR yet, but I am sure that this will be more and more important.” (Nancy Papalexandris, Athens University of Business and Economics)

Furthermore the aspect of centralization has been mentioned as an additional factor.

“Je zentraler ein Unternehmen aufgestellt ist, desto wichtiger sind natürlich IT-Kompetenzen da diese zum Beispiel bei den Shared Services gefragt sind.“ (Silke Biermann, LMU München)

„If an organization is more centralized IT-competences are becoming more important because these competences are for example important in the domain of Shared Services.“

Although IT-competencies had been generally evaluated as positive on the HR job performance, a special role in this respect has been assigned to the IT-departments of organizations.

“I would expect the role of an IT-department to mentor and work with people in the HR function to help them with whatever kind of technology is coming in their way.” (Majella Fahy, University College Dublin)

4.2.3. Composition and evaluation of the curriculum

Two of the four interviewed universities offered a technology-related course in their HR curriculum. Interestingly the FH Pforzheim University will not include their E-HRM in the next year which has been explained by the program director.

“Für mich macht es keinen Sinn mehr so viele unterschiedliche Bereiche, die das elektronisches Human Resource Management abdeckt, in einem Modul zu lehren. Diese unterschiedliche Bereichen gehören in unterschiedliche Module. [...] Wir hatten das Modul E-HRM nämlich – im Gegensatz zu vielen anderen Universitäten, die es noch nie hatten – einige Jahre in unserem Curriculum, und das ist unsere Erfahrung damit.“ (Günther Bergmann, FH Pforzheim University)

„For me it makes no more sense to teach such different aspects which the electronic Human Resource Management covers in one module. These

different aspects should be covered in the respective modules. [...] We had the module E-HRM – in contrast to many universities who probably never had it – in our curriculum, and this is our experience we have with it.”

A similar explanation has been used by the two universities who offer no technology-related course in their HR curriculum.

„Ich sehe das schon als sehr wichtig an, die Frage die sich dabei stellt ist aber: Brauchen wir dafür einen einzelnen Kurs? [...] Es ist sehr wichtig und in vielen Bereichen festzustellen, allerdings sollte das wichtige in den einzelnen Modulen abgedeckt sein. [...]“ (Silke Bergmann, LMU München)

„Well, I see that this (technology) is very important, but the question that is important is: Do we need a single course for this? [...] It is very important and in we see it in many areas, but the most important aspects should be covered in the respective modules.”

The universities also tried to point out that they do not ignore IT in their curriculum, but deal with it in different parts of their curriculum.

„Was wir allerdings machen ist zum Beispiel in den einzelnen Bereichen, nehmen wir jetzt zum Beispiel das Thema Personal Marketing oder Employer Branding, das wir den Studenten über alle Möglichkeiten, das heisst in dem Fall über alle Kanäle über die das möglich ist, unterrichten – und hier gehört natürlich auch der IT-Bereich dazu.“ (Silke Bergmann, LMU München)

„What we do for instance is to teach our students about the possibilities of IT in areas where it is relevant. Let us take for instance the topic Personal Marketing or Employer Branding, where we teach our students about the different channels which can be used and IT is surely one of them.”

Similar to this, it has been mentioned that more important than hands-on skills is to create an awareness of the potential of technology.

“I feel that it is important that they (the students) are aware of what is out there and then are capable of being trained when they go into a company using that technology and working with an IT-department to use it to its best effect.” (Majella Fahny, University College Dublin)

The Athens University of Economics and Business, who already has a technology-related course in their curriculum, plans to expand the technology-related part in their curriculum in the future.

“We were adding some extra hours for workshops for computer applications in HR last year. Now we will again add some extra hours which is a very recent development.”
(Nancy Papalexandris, Athens University of Economics and Business)

4.2.4 Summarization of the interview results

The tonus of the interviews is clear: the program directors regarded IT as highly influential on the work of HR professionals today and in the future. Furthermore changes in skill requirements for HR professionals have been admitted, but these statements have been put into perspective. The program directors stated that the extent to which IT-knowledge and IT-skills are important for HR professionals is for example dependent on the industry and the size of the business. Most interesting in the context of such statements is the fact that three out of the four interviewees denied e-HRM an entire course. Especially the decision of the University of Pforzheim to not include their course on e-HRM in their next HR curriculum seems – at first hand - curious. However, as reason it has been stated that e-HRM covers too many aspects to be covered in a single course.

Hence, the most important findings of the interviews results can be summarized as the following:

- The program directors acknowledged that there is a tremendous influence of IT on the work of HR professionals
- The influence of IT on HR has been described as clearly increasing in the future
- Changes in skill requirements for HR professionals have been relativized (for example dependent on size and kind of organization)
- Three out of the four program directors denied e-HRM the right for an entire course, primary due to the fact that the field is very broad

5. Discussion

European higher education institutions seem to underestimate the influence of information technology on the work of Human Resource Management. The results show that IT-related content in HR curricula exists, yet in most cases not related to HRM. Only eight out of the 25 researched HR curricula offered IT-related content for HR purposes in their HR curricula which equals a percentage of just 32%. This number is alarmingly low especially under consideration of the fact that in most of these courses e-HRM/HRIS-related content plays only a peripheral role and is dealt with as a side aspect. Hempel (2004) conducted his research on the content of HR curricula in the US nearly ten years ago with the result that ten out of 22 HR curricula offered an IT-related course for HR purposes, which were predominantly HRIS courses. This equals a percentage of 45% which is at first glance higher than the percentage found for Western European HR curricula. However, this comparison will be put into perspective in the next section as the research methodology and results of both researches will be compared and discussed under consideration of the spatial and temporal context of the researches. Furthermore the results for Western Europe will be evaluated in the light of changing skill requirements for HR professionals and in the context of the increasing role IT plays for HR. As a last point the discussion will conclude with recommendations on how IT-related content should be adequately integrated in HR curricula in order to prepare HR students for the skill requirements of the future.

5.1. Western Europe vs. USA – Comparison of HR curricula

A first cause for the finding that IT-related content for HR purposes is apparently less represented in Western European HR curricula in 2013 than in the US nearly ten years ago is to be searched in the research methods of the two researches. The present research analyzed fifty HR curricula from which half of the curricula provided sufficient information for document analysis – directly in the internet, for example via a course catalogue, or after request. Furthermore a minimum amount of information (see Appendix D) on *each* course of the curriculum was required to admit the curriculum to the document analysis. Hempel (2004) followed a slightly different research methodology as Hempels' (2004) first step was to scan if the curricula contained courses which are technology-related (presumably by checking the courses' names) and subsequently collect information on these specific courses. Furthermore in the later part of his analysis he found out that no course outline was available for nine of the twelve courses which he first identified as technology courses. From these nine courses just six courses proofed to be actually HRIS – related courses, as the other courses were just ostensibly about HRIS but were actually providing an introduction on how to use the computer as a research tool (such courses have also been found in this research, see 4.1). The result is that Hempel (2004) actually found six courses which provide technology-related content for HR purposes which equals a percentage of 27% (six out of 22) which is lower than the percentage found in this research. However, this comparison should not distract from the facts that (1) this research declared courses as e-HRM/HRIS related even if those topics played just a minimal role in the respective course, (2) courses on HRIS are less represented in Western

Europe than in the US nearly ten years ago and that (3) in both geographical context technology-related content for HR-purposes is absolutely underrepresented.

Of special interest is at this point the question why HRIS is so extremely underrepresented in the HR curricula of the – according to the Eduniversal Best Masters Ranking – *best* HR masters in Western Europe in comparison to HR curricula in the USA where at least six universities offered such a course – nearly ten years ago. A possible explanation for this phenomenon can be based on differences in the higher education systems of Europe and the United States. As already indicated in the method section higher education in the United States is characterized by an emphasis on practice and job preparation. Furthermore it has been pointed out that the US system is strongly influenced by market forces and traditionally stronger connected to the labor market than higher education institutes in Europe. These characteristics can partly explain why HRIS-related content in Western European HR curricula is less represented than in US HR curricula as skills and knowledge regarding HRIS are surely rather practice than intellectually oriented. Dealing with HRIS means to prepare for a “real-life”-job which is one trademark of the US system. As the framework indicated the labor market requires HR practitioners which possess IT-related knowledge and skills for HR purposes and apparently is, due to the closer connection to the labor market and the influence of market forces, the US ahead of Europe with respect to the integration of HRIS in HR curricula. This is of course shocking regarding the different temporal context of the researches. Even if the result in this respect is disillusioning for Europe it is important to remark that in both cases only a small fraction of curricula offered content regarding HRIS. However, for the case of this research the numerous university rankings which see the United States ahead of Europe seem to prove true as it would be illogical to assume that US universities offer less HRIS-related courses in 2013 than in 2004.

Furthermore another replication of this research in the United States would make perfect sense as it could be checked if in the meantime e-HRM-related content has been integrated in HR curricula.

5.2 Evaluation of HR education in Western Europe considering the impact of IT on HR

It has been mentioned multiple times that IT-related content for HR purposes is underrepresented in Western European HR curricula. However, it should not be disregarded that a majority of universities offers IT-related content in their curricula which can have indirect positive effects on HR students’ future attitude towards e-HRM and IT in general. Voermans and van Verldhoven (2006) pointed out that a positive attitude towards IT and e-HRM in particular is crucial for e-HRM success. Furthermore the study by Suen, Hsiao and Yang (2011) stressed the positive relationship between IT skills, HR competences and job performance. It is therefore important to mention that all courses which enhance the students’ performance with IT devices such as computers can be beneficial for the future performance regarding e-HRM/HRIS tools, even if the courses’ intention is ostensibly just to teach the student how to use the computer as a research tool for statistical analysis with programs such as SPSS.

On the other hand it is obvious that such indirect positive effects cannot replace direct education on e-HRM. At this point it is important to remember that conditions for e-HRM success are among others to encourage users to engage with the systems and to provide sufficient training regarding the system (Parry & Tyson, 2011). Furthermore, conditions for e-HRM success as identified by Bondarouk and Ruel (2013) are communication about advantages and benefits of the e-HRM system and users, which are ready for the systems. It is obvious that these conditions concern every stakeholder of e-HRM in a company, but the beginning has to be made at the HR departments, the HR employees and in a wider sense also HR students.

HR students will later work as HR professionals and need the skills and awareness on e-HRM which is not provided by teaching just peripheral IT-knowledge or hands-on skills which are not related to e-HRM applications. Therefore the next section aims to give advice how IT-related content on e-HRM can be reasonably integrated in HR curricula of the future.

5.3 An HR curriculum for the future – Possibilities to integrate technology-related content

The results of the interviews with the program directors provided some useful background information on why e-HRM is underrepresented in Western European HR curricula as there was a tendency to deny e-HRM the right for an entire course. Even the FH Pforzheim University, which was the only university of the research sample who offered an entire course module on e-HRM, will not offer this course in the next study year with the reasoning that the field is very broad and cannot be grasped in one module. This reasoning is understandable as e-HRM includes per definition “all possible integration mechanisms and contents between HRM and Information Technologies” (Bondarouk & Ruel, 2009) which includes such diverse areas of HRM as training and development (E-Learning in e-HRM terms), recruitment and selection (E-Recruitment) or – and still predominantly – in the domain of administration (for example Employee Self Services as part of Shared Services).

However, e-HRM is no topic that can be ignored. Therefore three ways to integrate e-HRM in HR curricula – based on the results of this research - will be discussed in the following. In ascending order it will be discussed how to integrate e-HRM in a minimalist way, how to integrated e-HRM in an acceptable way and finally how to integrate e-HRM in an excellent way.

The minimalist way to integrate e-HRM in HR curricula

The minimalist way to integrate e-HRM in an HR curriculum is to deal with the different sub fields of e-HRM in the respective course modules and give a general introduction to e-HRM in introductory courses on Human Resource Management. An example for such a minimalist approach is the course *Current Issues in HRM* from the Rotterdam Erasmus University (course outline can be found in Appendix E). The HR curriculum of the Rotterdam Erasmus University does not ignore the topic of e-HRM but integrates it in a course about most recent developments in the field and its implications on the work of HR professionals. Such a minimalist way to integrate e-HRM in an HR curriculum makes the student aware of e-HRM and the potential e-HRM has for HRM. However, to fulfill the minimalist approach the topic should also explicitly be dealt with in courses such as *Managing Human Resources* from the University

of Warwick and *Strategic HRM, Ethics & Performance* from Aston University. The first to teach students about the possibilities of an HRIS in order to manage human resources and the latter to make clear how beneficial the deployment of e-HRM can be to establish HR as a strategic partner which leads us to the acceptable way to integrate HRM in an HR curriculum.

The acceptable way to integrate e-HRM in HR curricula

In the acceptable way e-HRM is also dealt with as a sub aspect in the respective course modules but in addition to this e-HRM is integrated in the HR curriculum as a core course, merged with another important HRM topic that is related with e-HRM. Just think of typical HRM core topics such as strategic HRM and international HRM which are often directly related to e-HRM. This has the advantage that no entire course is required so that the awareness of e-HRM can be perfectly taught in combination with HR domains which profit from e-HRM or are even highly depended on e-HRM.

Let us illustrate this proposition with an example: as there is still a very lively debate on the relationship between strategic HRM and e-HRM (Bondarouk & Ruel, 2013; Lepak & Snell, 1999; Marler, 2009; Marler & Fischer, 2013; Ruel & Bondarouk, 2006) it would make perfect sense to merge these topics to one core course and increase the students' awareness for e-HRM and its potential contribution to establish the HR department as strategic partner.

A second example would be to combine international HRM (IHRM) with e-HRM; first, because both can be found in nearly every subfield of HRM and secondly, because e-HRM is more important for large MNCs who operated in an international context than for small companies who operate in a smaller environment. It can be assumed that many universities would – due to a lack of capacities – not integrate e-HRM or IHRM as single course in their HR curricula as these areas touch many subfields of HRM. Nevertheless they remain crucial aspects of HRM and are suitable to be taught as a merged core course.

The excellent way to integrate e-HRM in HR curricula

The basis of the excellent way consists of a combination of the two latterly described ways to integrate e-HRM in HR curricula. This means that awareness for e-HRM is increased in every sub field e-HRM plays a role in and furthermore that e-HRM is combined with another HRM topic to a core course of the curriculum. Now the difference between the excellent and the good way is a course which provides hands on experience with e-HRM tools (which includes HRIS) as elective course. Just recently a research by Yuzliza and Ramayah (2012) researched determinants of attitude towards e-HRM for HR professionals. On the basis of the technology acceptance model (TAM) by Davis (1989) they found out that perceived usefulness and perceived ease of use are critical determinants of attitude for HR professionals towards using an e-HRM platform. This means nothing more that if HR professionals perceive an e-HRM tool as useful (perceived usefulness) and easy to use (perceived ease of use) the probability will increase that their attitude towards e-HRM will be positive. The question is: why not begin with our HR curricula? Every student has preferences and there are certainly preferences which make direct contact with e-HRM tools not just desirable, but essential. Students should be informed beforehand about the tremendous impact of IT on the work of HR professionals,

especially in large organizations. Students who know beforehand that they seek a career in a large multinational company should be strongly advised to follow such a course which brings them in touch with the hands on basics of e-HRM tools. The first step to establish HRM as a strategic business partner can already be made by universities by preparing students directly for the job, as knowing the business and the business processes is an indispensable requirement on the way to this goal.

6. Conclusion and future research

The present study replicated Hempels' (2004) research, who found that HR curricula in the US did not take account of the increasing influence of technology on the work of HR professionals, in a Western European context. The results for Western Europe, nearly ten years thereafter, are very disillusioning: IT-content for HR purposes is a scarce commodity in Western European HR curricula. It can be recommended to conduct research on the relationship between knowledge and skills regarding e-HRM, job performances of HR professionals and the strategic role of HR to find out more about how HR curricula can be adopted to the requirements of the industry and in particular HR departments. We cannot expect to establish HR as a strategic partner, if students do not leave the universities well prepared for future challenges. E-HRM is not just today a topic as its influence will surely not decline in the following years. Reports like the 15th CedarCrestone HR Systems Survey (2012) make this very clear and leave no room for interpretation.

Another recommendation for future research is to replicate the study for HR bachelor curricula. As we focused on the master programs we can make no statement on the IT-relatedness of the bachelor programs, which is surely a limitation of our study. Furthermore bachelor curricula leave more room to cover different topics, as the duration of a bachelor program is usually more than two times longer than the duration of a master program. It cannot be excluded that some universities regard e-HRM and HRIS as basic topics, which should already be covered during the bachelor.

An issue that is indirectly connected with the influence of IT on HRM is the question how HR professionals can reclaim their territory when traditional HR processes become automated. Since companies made use of machines or technology which could replace human work force people had to develop themselves further to offer skills that a machine cannot. Clearly the first obvious step has been subject of this research: to acquaint HR people with the new tools which drive the (HR) business. The second step is to think of skill sets which can add extra value to the HR staff when the administrative burden has been taken off them which can be for example change or project management skills, consultancy skills or leadership skills.

In the context of this research most interesting would be to replicate the study of Hempel (2004) in the United States. Why? Because it should not be expected that US higher education institutes slept for ten years so one extremely interesting question remains: How far are they now?

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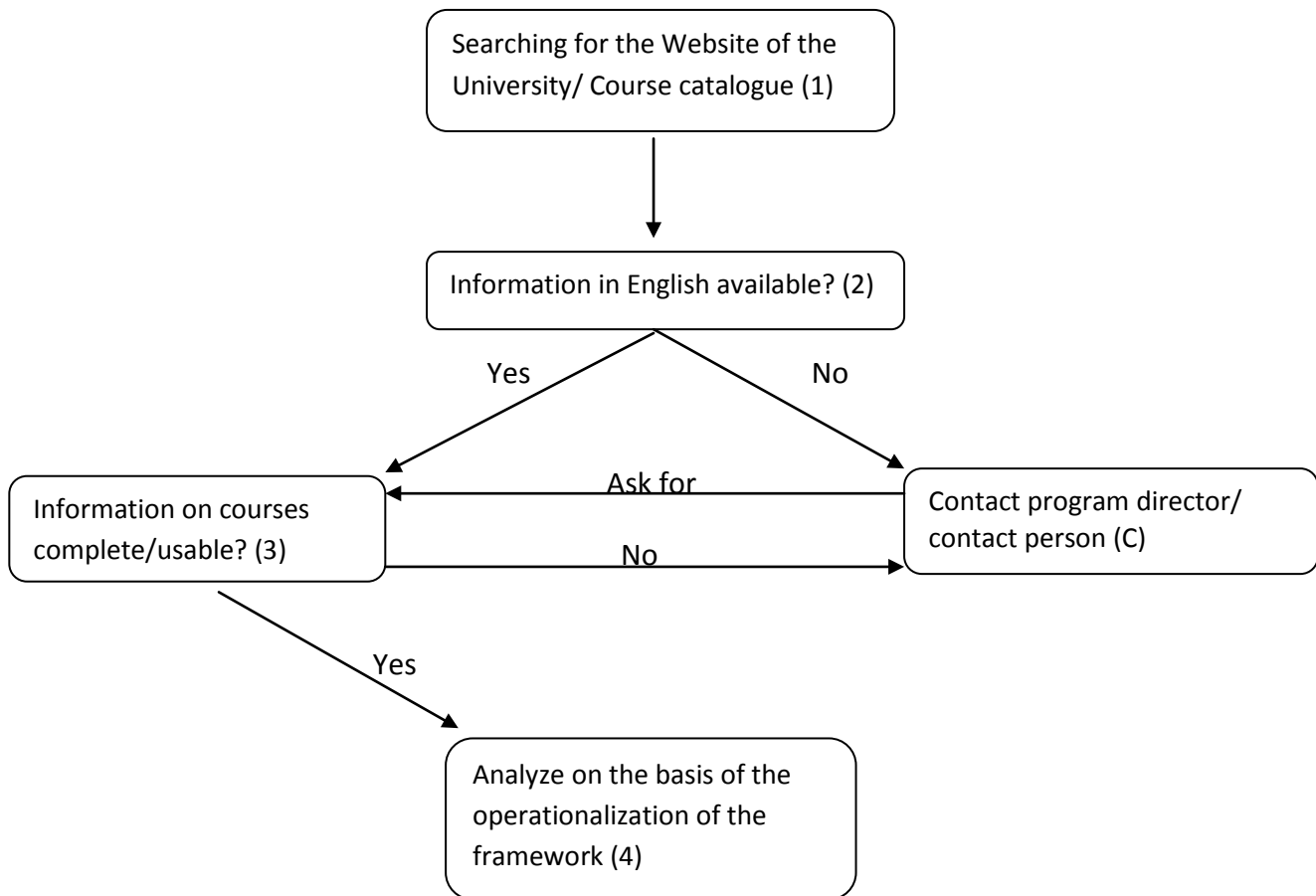
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Appendix A: Eduniversal University Ranking: Western Europe Best Masters Ranking in HRM

Rank	Business School	Place	Country
1	London School of Economics and Political Science	London	United Kingdom
2	ESCP Europe	Paris	France
3	Università Bocconi	Milan	Italy
4	Erasmus University Rotterdam	Rotterdam	The Netherlands
5	The University of Manchester	Manchester	United Kingdom
6	ESADE Business School	Barcelona	Spain
7	Copenhagen Business School	Copenhagen	Denmark
8	Université Catholique de Louvain	Louvain-la-Neuve	Belgium
9	University of Warwick	Coventry	United Kingdom
10	Université Paris-Dauphine	Paris	France
11	BI Norwegian Business School	Oslo	Norway
12	University College Dublin	Dublin	United Kingdom
13	ESSEC Business School	Cergy	France
14	Aix Marseille University	Marseille	France
15	Universidade Nova de Lisboa	Lisbon	Portugal
16	Imperial College London	London	United Kingdom
17	INSEEC Business School	Lyon	France
18	Pôle ESG	Paris	France
19	Universidad de Navarra	Pamplona	Spain
20	Escuela de Alta Alta Dirección y Administración	Barcelona	Spain
21	Athens University of Economics and Business	Athen	Greece
22	Université Panthéon-Assas	Paris	France
23	FUNDESEM Business School	Alicante	Spain
24	Lancaster University	Lancaster	United Kingdom
25	FH Pforzheim University	Pforzheim	Germany
26	Brunel University	Uxbridge	United Kingdom
27	University of Glasgow	Glasgow	United Kingdom
28	Aston University	Birmingham	United Kingdom
29	Universidad Carlos III de Madrid	Madrid	Spain
30	University of Groningen	Groningen	The Netherlands
31	University of Deusto	Bilbao	Spain
32	Universidad Pontificia Comillas	Madrid	Spain

33	Coventry University	Coventry	United Kingdom
34	University of Strathclyde	Glasgow	United Kingdom
35	Ashridge Business School	Hertfordshire	United Kingdom
36	Antwerp Management School	Antwerp	Belgium
37	University of Leeds	Leeds	United Kingdom
38	LMU München	Munich	Germany
39	Kingston University	London	United Kingdom
40	Sheffield Hallam University	Sheffield	United Kingdom
41	Bradford University	Bradford	United Kingdom
42	Nottingham Trent University	Nottingham	United Kingdom
43	University of Birmingham	Birmingham	United Kingdom
44	ISCTE Business School	Lisbon	Portugal
45	University of Durham	Durham	United Kingdom
46	Cyprus International Institute of Management	Nicosia/Limassol	Cyprus
47	Newcastle University Business School	Newcastle	United Kingdom
48	Pompeu Fabra University	Barcelona	Spain
49	Fondazione ISTUD	Baveno/Milan	Italy
50	Dublin City University	Dublin	United Kingdom

Appendix B: Results of the hierarchical breakdown of the research sample



Rank	Business School	Data collection status
1	London School of Economics and Political Science	Information complete (4)
2	ESCP Europe	No information in English available/received (2+C)
3	Università Bocconi	No information in English available/received (2+C)
4	Erasmus University Rotterdam	Information complete (4)
5	The University of Manchester	Information complete (4)
6	ESADE Business School	No HRM master = Excluded (1) (Msc in Innovation and Entrepreneurship)
7	Copenhagen Business School	No information in English available/received (2+C)
8	Université Catholique de Louvain	Information on elective courses only in French (2+C)

9	University of Warwick	Information complete (4)
10	Université Paris-Dauphine	Not enough information provided / received (3+C)
11	BI Norwegian Business School	Information complete (4)
12	University College Dublin	Information complete (4)
13	ESSEC Business School	Not enough information provided / received (3+C)
14	Aix Marseille University	Information not complete (2+C)
15	Universidade Nova de Lisboa	Master to General, no particular HRM master = Excluded (1)
16	Imperial College London	No HRM master found = Excluded (1)
17	INSEEC Business School	No information in English available / received (2+C)
18	Pôle ESG	No information in English available / received (2+C)
19	Universidad de Navarra	No information available, not in English (1)
20	Escuela de Alta Alta Dirección y Administración	No information in English available / received (2+C)
21	Athens University of Economics and Business	Information complete (4)
22	Université Panthéon-Assas	No information in English available / received (2+C)
23	FUNDESEM Business School	Not enough information available / received (3+C)
24	Lancaster University	Information complete (4)
25	FH Pforzheim University	Information complete (4)
26	Brunel University	Information complete (4)
27	University of Glasgow	Information complete (4)
28	Aston University	Information complete (4)
29	Universidad Carlos III de Madrid	Information complete (4)
30	University of Groningen	Information complete (4)
31	University of Deusto	Information complete (4)
32	Universidad Pontificia Comillas	No information in English available / received (2+C)
33	Coventry University	Not enough information provided / received (3+C)
34	University of Strathclyde	Not enough information provided / received (3+C)
35	Ashridge Business School	Cannot be count as an HRM master (1)(Postgraduate Certificate in Advanced Coaching & Organisation Development Supervision)
36	Antwerp Management School	Not enough information provided /received (3+C)
37	University of Leeds	Information complete (4)
38	LMU München	Information complete (4)
39	Kingston University	Not enough information provided / received (3+C)
40	Sheffield Hallam University	Information complete (4)
41	Bradford University	Information complete (4)
42	Nottingham Business School	Not enough information provided / received (3+C)
43	University of Birmingham	Information complete (4)

44	ISCTE Business School	Information complete (4)
45	University of Durham	Information complete (4)
46	Cyprus International Institut of Management	Information complete (4)
47	Newcastle University Business School	Information complete (4)
48	Pompeu Fabra University	Information complete (4)
49	Fondazione ISTUD	Not enough information provided / received (3+C)
50	Dublin City University	Information complete (4)

→5 Master programs could not be found or count as HRM masters and were excluded (1)

→10 Master programs were taught in another language than English or the University provided no information in English, also after contacting the university (2)

→ For 10 of the Master programs it was not possible to collect sufficient information, also after contacting the university (3)

Appendix C: Example letters for information request and contacted universities

No information in English available

Dear Sir/Madame,

I am a master student of Human Resource Management at the University of Twente and I write my master thesis about the content of HR curricula in Europe.

As research sample I chose for the Eduniversal University Ranking of the Best HRM master programs in Western Europe in which your university ranks #X. Unfortunately I could find no information on the website of your university on the content of your HR curricula in English and I wanted to ask if such content is available.

It would be very helpful for my research project if you could maybe assist me in this respect and I would like to ask you if you could send me information on the contents of the courses of your HR curriculum or send me a link where I can find this information.

I am looking forward to your answer,
Kind regards,
Michael Golla.

No sufficient information available

Dear Sir/Madame,

I am a master student of Human Resource Management at the University of Twente and I write my master thesis about the content of HR curricula in Europe.

As research sample I chose for the Eduniversal University Ranking of the Best HRM master programs in Western Europe in which your university ranks #X. Unfortunately I could not find enough information on the website of your university on the precise content of your HR curricula, e.g. on the precise content of the courses/modules.

It would be very helpful for my research project if you could maybe assist me in this respect and I would like to ask you if you could send me information on the contents of the courses of your HR curriculum or send me a link where I can find this information.

I am looking forward to your answer,
Kind regards,
Michael Golla.

Appendix D: Example letter for the interview requests

Dear Sir/Madame,

I am a master student of Human Resource Management at the University of Twente in the Netherlands and I write my master thesis about the content of HR curricula in Europe.

As research sample I chose for the Eduniversal University Ranking of the Best HRM master programs in Western Europe in which your university ranks #X.

The first part of my master thesis consists of an analysis of the content of the master curricula, with an emphasis on the role of technology in the domain of HRM (often referred to as e-HRM). For the second part of my thesis I aim to conduct interviews with the program directors of the master curricula to get to know more about the intentions behind the contents of the HRM master programs.

Therefore I wanted to ask you if it would be possible for you to participate in such an interview which I would like to conduct via telephone or Skype.

Thanks in Advance,
Kind regards,
Michael Golla.

Example for the desired amount of information (Rank #28: Aston University)

BHM354 STRATEGIC HRM, ETHICS & PERFORMANCE

Academic Year 2012/13

Number of Aston Credits:	15
Number of ECTS Credits:	7.5

Staff Member Responsible for the Module:

Jonathan Crawshaw, Work & Organisational Psychology Group
South Wing, Room 8011, Extension 3130
Email: j.r.crawshaw2@aston.ac.uk
Availability: Please see Work & Organisational Psychology Group Administrator
Mrs Jenny Thompson, SW 802, Extension 3257

Others Members Contributing to the Module:

Carole Parkes, Work & Organisational Psychology Group
South Wing, Room 8016, Extension 3195
Email: c.l.parkes@aston.ac.uk
Availability: Please see Work & Organisational Psychology Group Administrator
Mrs Jenny Thompson, SW 802, Extension 3257

Pre-requisites for the Module:

None

Mode of Attendance:

On campus

Module Objectives and Learning Outcomes:

By the end of the module, students will be able to:

1. Understand the managerial and business environment within which HR professionals work.
2. Understand, analyse and critically evaluate how organizational and HR strategies are shaped by, and developed in response to, internal and external environmental factors.
3. Understand the key HR challenges facing multinational corporations (MNC).

4. Demonstrate an awareness and understanding of strategic thinking and the importance of HRM strategy to organizational performance.
5. Describe and critically evaluate the theories, concepts and approaches relating to ethics, social responsibility, sustainability and human rights and the implications for HRM.
6. Evaluate the role of ethical codes, policies and practices and the importance of HRM processes to the integration of social responsibility and sustainability.
7. Demonstrate HR practitioner skills of problem solving, decision making and consultancy in relation to key HR strategy issues – including challenges of operating ethically and responsibility in a multinational context.

Module Content:

- Week 1:** Module outline & introduction: The evolving role of strategic HRM
- Week 2:** Corporate strategy and notions of 'best-fit' HRM
- Week 3:** HRM 'best practice' and high performance work systems
- Week 4:** The resource-based view: developing human and social capital
- Week 5:** Challenges and approaches to strategic HRM in the MNC
- Week 6:** Ethics, social responsibility, sustainability and strategic HRM
- Week 7:** Human rights and HRM: Ethical codes, policies and practices
- Week 8:** Approaches to HR planning and decision making
- Week 9:** Revision and review
- Week 10:** Exam week

Corporate Connections:

The teaching and case materials draw on contemporary business issues and events. The teaching team uses their own corporate connections and experience to enrich themes covered in the module. There are also contributions from experienced HRM practitioners. The student body is a mixture of full-time and part-time students, many of whom are currently working in or have worked for organizations and this experience is shared with module participants.

International Dimensions:

International perspectives are provided through:

- > Examples used by the tutor in teaching materials and case studies. Content includes issues of globalization and the HR strategy challenges facing MNCs.
- > Discussion between the students during the sessions drawing out their experiences and making comparisons. The make-up of the student body is very diverse in terms of international representation.

Contribution of Research

Research by members of the Work & Organisational Psychology Group and the CIPD on HR effectiveness is included in the sessions on Strategic HR.

Method of Teaching:

A combination of lectures, discussions, group presentations, videos and case exercises will be used during this module. The skills workshop will use a blend of problem solving and decision making activities and require students to use skills of self reflection and reflexivity.

Method of Assessment:

1. An Individual Essay (10%).
2. A 'Closed Book' Examination (75%).
3. A Workshop Skills Portfolio (15%).

The portfolio will contain some combination of on-day assessed activities (e.g. worksheets, observations, evaluations) and an individual reflection on learning from the module and the skills workshop.

Satisfactory completion of the Skills Portfolio will be a requirement of achieving CIPD accreditation.

Learning Hours:

Contact hours	27
Class/Workshop preparation	17
Directed learning/additional reading	50
Private study/assessment preparation/exam	50
Workshop	6
Total	150

The following essential and recommended readings are subject to change. Students should not therefore purchase textbooks prior to commencing their course. If students wish to undertake background reading before starting the course, many of the chapters/readings are available in electronic form via on-line library catalogues and other resources.

Recommended Text Books:

Recommended reading for the module is provided under topic headings. However, the following texts provide a good overview of the areas to be studied.

Aston Centre for Human Resources (2008). *Strategic Human Resource Management: Building Research-Based Practice*. London: CIPD.

Crane A. & Matten D. (2010). *Business Ethics: Managing Corporate Citizenship and Sustainability in the Age of Globalization*, 3rd Edition. Oxford University Press.

Leopold, J., & Harris, L. (2009). *The Strategic Managing of Human Resources*, 2nd Edition. Harlow: FT Prentice Hall (or earlier edition).

Marchington, M., & Wilkinson, A. (2008). *Human Resource Management at Work: People Management and Development*, 4th Edition. London: CIPD (or earlier editions).

Redman, T., & Wilkinson, A. (2009). *Contemporary Human Resource Management*, 3rd Edition. Harlow: FT Prentice Hall (or earlier editions).

Schuler, R., & Jackson, S. (2006). *Strategic Human Resource Management*, 2nd Edition. Oxford: Wiley Blackwell (or earlier edition).

Storey, J. (2007). *Human Resource Management: A Critical Text*, 3rd Edition. London: Thomson Learning (or earlier editions).

Recommended Academic and Practitioner Journals:

Academy of Management Journal/Review/Executive
Harvard Business Review
Human Relations
Human Resource Management (US)
Human Resource Management Journal (UK)
International Journal of Human Resource Management
Journal of Applied Psychology
Journal of Business Ethics
Journal of Organizational Behavior
People Management
Personnel Review
Strategic Management Journal

Appendix F: Example for the range of technology-related content (from 20% and 100%)

Example for technology-related course with **low amount of technology-related content** (20%, 1/5 listed aspects deals with e-HRM) from Rotterdam Erasmus University (#4)

Current Issues in HRM

BKM05HR

Academic year 2012-2013

Lecturers: [Dr. H.M.S. Dietz](#)
 Contact: [Dr. H.M.S. Dietz](#)
 Coordinator: [Dr. H.M.S. Dietz](#)
 Structure: Lectures
 Assessment: Cases, group project, MC Exam
 Period: Block 1
 ECTS: 5
 Study level: [Master](#) (Human Resource Management) ([Level](#))
 Links: [Channel](#) , [Timetable](#)

Contents

Learning objectives

Agenda's of senior human resource executives of both local and multinational firms are crammed with countless issues. Parallel to this is a growing body of scholarly research on human resource related topics published and presented in journals and conferences around the world. What are the relevant lessons from within human resource research that these managers can learn from, and how can they benefit from this?

Triggered by this question, the present course identifies a number of essential 'current issues in human resource management' and takes these issues as a starting point for classroom discussion and learning. Building on concepts from the neighbouring sciences of Organisational Behaviour and Strategic Management, it discusses such topics as: (1) Performance Management, (2) Electronic & Web-Based HRM, (3) Performing necessary evils to employees, (4) The strategic position of most senior human resource officials in the firm, and (5) Emotional Intelligence.

The course has the following learning goals:

- To develop insight in issues that are currently considered to be at the cutting-edge of human resource management research;
- To develop the conceptual skills needed to diagnose business issues and develop human resource interventions geared to increase business performance;
- Understand the dynamics of power and influence necessary 'to make things happen' for human resource professionals;
- To provide an insight in antecedents and consequences of dynamics in the human resource functions inside firms.

This HRM core course is constructive for those students who will be senior HR executives in charge of setting the corporate HR agenda. In addition, students who will be held accountable for business performance in its broadest sense are likely to benefit from the course.

Literature

- Reader and Cases

Example for **high amount of technology-related content** (100%, entire course deals with HRIS) from Athens University of Economics and Business (#21)

HR INFORMATION SYSTEMS

The course has three main targets: to explain the basic notions of information technology and information systems from the aspect of an executive. To examine and develop the main aspects of involvement that an executive of Human Resource Management can have regarding the choice and development of an HRIS. And finally to examine the main teams of functionalism HRIS and the possibilities that these **offer** to the executives of the department of human resource management as well as to the rest of the administrative executives and the employees of an enterprise.