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	<p>Library 3.0: where art our skills?</p> <p>Dr Grace Saw Executive Manager Physical Sciences and Engineering Library Service The University of Queensland Library Australia</p> <p>Ms Heather Todd Executive Manager Biological and Health Sciences Library Service The University of Queensland Library Australia</p>
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<p><i>WORLD LIBRARY AND INFORMATION CONGRESS: 73RD IFLA GENERAL CONFERENCE AND COUNCIL</i> 19-23 August 2007, Durban, South Africa http://www.ifla.org/iv/ifla73/index.htm</p>	

Library 3.0 is just around the corner – so what are the selection criteria for Library 3.0 workers? How do we cope with four generations amongst our workforce? Is it a willingness to explore and gain a range of new skills often in their own time? Are we spending too much time trying to work out what services our customers want and not enough time skilling up some of our staff?

Are the professional associations keeping us up to date with the necessary professional training programs? If they are not then where do we go? Just as television has not superseded live theatre, how do we maintain the elements in Library 1.0 and 2.0 in the new era?

While library staff are enthusiastically taking up the new challenges, the challenge is to be both custodian and facilitator of information resources. This paper will explore the issues and challenges in keeping up with the impact of new technologies and the mega trends that will occur in the next quarter of the 21st century: how can libraries learn from other service industries, how will librarians keep up with subject specific skills e.g. evidenced based medicine, law, problem based learning, are our skills out of alignment with these trends, are we taking advantage of our potential?

Introduction

We know that Library 3.0 is just around the corner and even though we don't know exactly what form Library 3.0 will take we do know that it will deliver a new generation of library products and services. We therefore have to ensure that our library staff - current and future - workforce possess the necessary skills to work in Library 3.0 successfully.

The librarian of the future is one who needs to be "comfortable wearing a number of hats. The academic librarian of the twenty first century must be a researcher, counsellor, planner, manager, assessor, team member, problem solver and computer-printer repair person". His/her most important characteristics are very good interpersonal and communication skills, language proficiency, team working skills, user- friendliness and customer orientation. (Feret & Marcinek 1999) Training library users will feature evermore as an important skills, teaching and training in information and IT skills in the advanced and more advanced searching as the users would already come with the basic skills.

As Choi and Rasmussen (September, 2006) suggest, the future of academic libraries will be a digital one, where the successful librarian will be flexible, adaptable and multi-skilled in order to survive in an environment of constant and rapid change.

If this vacancy was advertised in your library how many staff would comply with the selection criteria?

Positions Vacant

Information Technology Consultant

Planet University is seeking a knowledgeable dynamic, energetic and flexible information technologist with excellent communication and teaching skills to provide a range of services to support learning needs. Planet University works in partnership with the Virtual Learning Consortium to deliver high quality and innovative teaching and learning packages that actively engages students and supports both independent learning and peer interaction.

Duties:

Work collaboratively with faculty and consortium members to provide relevant support services including virtual information services that provide both specialised and general reference services. Integrate information objects into personalised and customised learning portfolios. Develop and participate in user education programs with an emphasis on specialized and value-added services. Participate in fund raising activities including identifying future partnerships.

Qualifications

Recognised tertiary qualifications in library and information studies; or recognized tertiary qualifications; or other qualifications or experience, which in the opinion of Planet University are appropriate to the duties stated.

The academic library of 2012 will need a team of flexible experts, all with different aptitudes and specialisations but who collaborate as researchers, technologists and proactive members of the university community. The journey to Library 3.0 will involve working through the main **drivers** e.g. next generation staff and customers, technology; while overcoming the **barriers** which include an ageing/retiring workforce and challenges of an inter-generational workforce with the application of appropriate and innovative **responses**.

Drivers for change

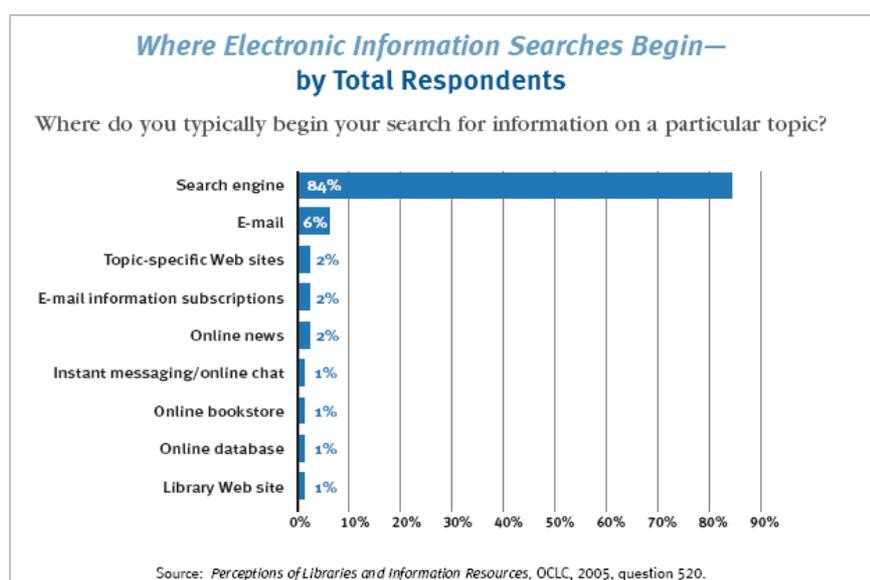
Technology

The impact and pace of technological developments over the last 50 years has affected all global citizens. Librarianship as a profession has been very profoundly shaped and impacted by this phenomenal development.

Greater and faster processing power, smaller gadgets, the Internet, Google, efficient computing devices, more and more data which is the way of the future. As Libner described in his vision for the 2012 library we have moved “*from a single library to a network of libraries; from one collection to distributed collections; from the catalog interface to multiple interfaces; from books and journals to information fields and streams encompassing traditional and non-traditional forms of scholarly communication. These include such diverse forms and genres as preprints, traditional publications, informal commentary, data sets, software applications, maps, video clips, listserv archives, and web pages – all accessible, at least in principle, anytime and anywhere*” (Libner, 2003)

User Behaviour

The above technology has enabled library users to change their behaviour over the last 20 years. In a self service world we know that the library is not the first point of call for many. Oblinger (2007) reported that only 2% of college students used the library web site as the starting point for research and 67% learn about electronic resources from their friends. The 2005 OCLC Report *Perceptions of libraries and information resources* reported that 84% of users typically start their search for information with a search engine.

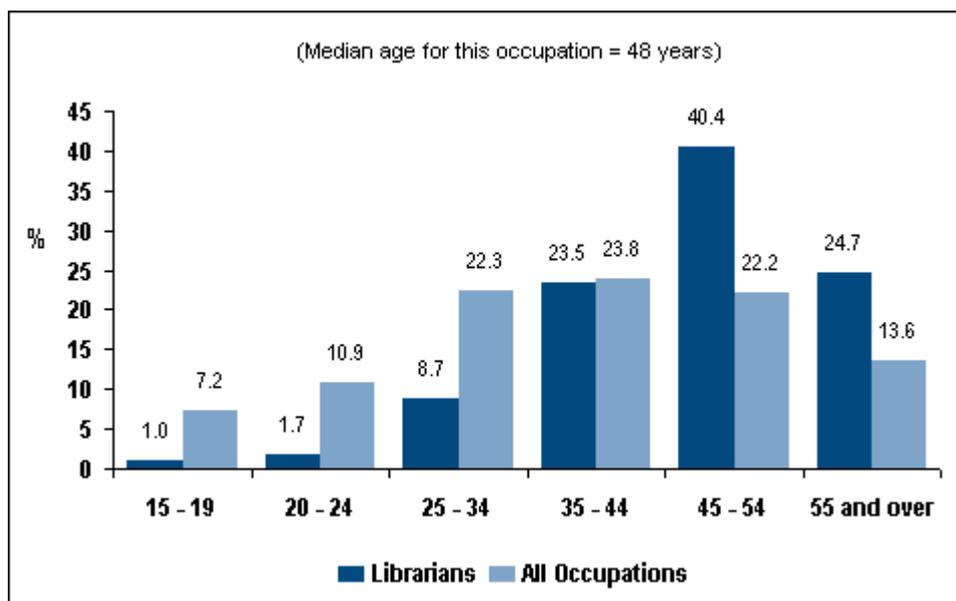


It is important to look at how potential library users may behave. For example Oblinger, (Oblinger, 2007) reported that 50% of children (grades 3- 5) use online tools to connect with other students, while the next generation of digital natives (those under 6 years) are using computers on a regular basis - 48% have used a computer while 27% using a computer daily. Gartner (Business Wire, 2007) is predicting that by the end of 2011 80% of internet users will have a 'second life' but not necessarily in Second Life.

The difference between how librarians and researchers view finding information was highlighted in the recent Research Information Network Report *Researchers and Discovery Services: Behaviours, perceptions and needs*. This reported that although librarians and researchers were generally in agreement that they were satisfied with the discover services there were some important differences namely that researchers made heavy use of search engines while librarians barely mentioned them as a search tool and not surprisingly librarians over-rated the importance of datasets to researchers.

The workforce profile and the inter-generational workforce

We have a multiple of generations in our workforce. In our backyard, Australia, we know that at least 24% of Australian librarians will be retired in 10 years with an additional 40% retiring in 10 – 20 years time.



Sourced from ABS Labour Force Survey, Australia

Veterans - are children of the Great Depression and World War II. They are recognised for their strong traditional views of God, family, and country. Their core values include respect for authority, loyalty, hard work and dedication. (Zemke, Raines & Filipczak)

Baby Boomers -Baby Boomers do not share the same difficulties as their parents. They grew up during a time of great economic growth and prosperity. They place high value on youth, health, personal gratification and material wealth. Baby Boomers are optimistic and believe their generation changed the world.

Generation X - Generation X are currently aged between mid- twenties to mid -forties and will need mentoring, encouragement to see the long term and not give in to their impatience to move on quickly to other organisations or other careers. They want to be engaged in their work, and they want to be constantly stimulated... it takes a serious commitment on the part

of managers to convince them they value their Generation X employees (Urgo 2000, p.39 – Hutley and Solomons 2006p. 4)

Generation Y (Millennials/Nexters) - Generation Y in the workforce are currently aged between eighteen and twenty six and are street smart, aware, life-style centred, independently dependent, informal and tech savvy, skeptical and impatient. They want to be in control, involved, have a purpose and meaning be challenged, entertained and empowered with the opportunity to use their creativity and earn a competitive salary.

Generational attitudes in the workplace

Generation title	Veterans	Baby Boomers	Generation X (GenXers)	Generation Y (Millennials/Nexters)
Dates range and current ages	1922-1943 Ages 63-76	1943-1960 Ages 44-63	1961-1980 Ages 26-46	1980-2000 Ages 7-27
Messages that motivate them to stay at a workplace	“Your experience is respected here” It’s valuable to the rest of us to hear what has- and hasn’t-worked in the past”	“You’re important to our success” “Your contribution is unique and important”	“Work to live and not live to work” “We’ve got the newest gadgets and computers”	“You’ll be working with other bright and creative people”
Summary of characteristics	Attracted to security and stability, civic minded, respect for authority. Adherence to rules, duty before pleasure	Service oriented Future oriented	Technologically savvy, flexible, resourceful, adaptable to change, self-reliant	Over-planned lives, optimistic, confident, street smart
Other comments	Directive leadership style	Collegial and consensual leadership style” to boldly go where no man has gone...”	Grew up in the information age. Value fun and a balanced life	The most ‘connected’ generation e.g. wireless and mobile technology

(Adapted from Zemke, “Generations at Work” (Zemke, Raines and Filipczack, 2000)

Gen X and Y: Work expectations

“Generational change happens almost imperceptibly, but it does happen; it comes up behind you and bites you in the ego” (Abram 2003 as quoted in Hutley and Solomons 2006, p. 3)

Many of our users and increasingly our staff as well are Generation Xs and some are from Generation Y. Generation X and Y see their work life balance as very important. They are demanding a better balance in their work and personal lives. They value flexibility in the workplace. They like to work smarter not harder. Personal learning and development is consistently seen as important to both Generations X and Y. They are looking for meaningful work and creative and innovative environment. They believe managers need to ensure that employees know where their job fits in the ‘big picture’ if not they will move on. Generation X and Y have grown up with technology at their fingertips from a young age. They have an astonishing amount of expertise in technology, which should be utilized. Regular feedback is the most important short-term reward managers can provide. The key to retaining these employees is the quality of relationships they have with their managers. A manager can no longer assume all employees want the same things as he or she wants. (Bridges et.al.)

As Australian new graduate Kate Davis states, *'the millennial librarian wants her work to be meaningful and rewarding: she wants to make a difference she wants her work to be challenging ... the challenge for library managers is to keep the Millennial librarian entertained in the entry level job she's bound to find herself in'* (Davis 2006).

Each generation has different life experiences and this is reflected in their views at the workplace. The success of a multi-generational workforce requires that staff members and managers acknowledge the values and strengths of each generation and understand how each can best contribute to the ultimate goal (Clausing et al, 2003)

Barriers for change

Workforce skills shortage

The major barrier of fast tracking to Library 3.0 – the current and future workforce skills shortage have been documented internationally in various studies conducted around the world. These include the Canadian 8Rs study (Whitmell, 2006), the US Institute of Museum and Library Science Research study, *Futures of Librarians in the Workforce* and in the UK, the Higher Education Council for England (HEFCE) for the Development of Teaching and Learning has funded the LIMES project - a two year study to address current skills gaps in the sector (Library Information Management Employability Skills, 2005).

Librarian Stereotype of the Nexters

Another barrier is the librarian stereotype and personality type. An Australian research project (Hallam and Partridge, 2005) aims to pull together the various elements of workforce planning activities as well as research into the characteristics of LIS students and new graduates together with understanding the career goals of new information professionals. To help understand the Nexters library students, they asked their students to complete the Myer Briggs Type Indicator (MBTI). They then compared the MBTI results with earlier studies.

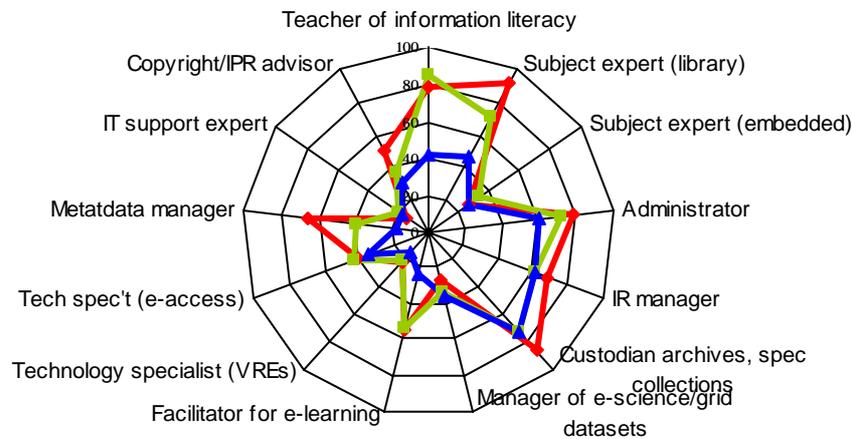
	Myer Briggs Type Indicator			
	I/E	S/N	T/F	J/P
General population	35/65	68/32	48/52	55/45
Hallam & Partridge	66/34	23/77	43/57	56/44
Brimsek & Leach	65/35	43/57	65/35	68/32
Scherdin & Beaubien	63/37	41/59	64/36	68/32

These studies illustrate that while the Nexter librarians are technologically savvy, their personality type indicate a preference for introversion (INFP) that

is opposite to the general public. Hallam and Partridge argue that 'it is a vital distinction for information professional to be aware of. If information professionals have a completely different preference about how to obtain information as compared to their clients, this will have significant implications for every facet of the library work, from reference support, information organization and user education programs' (Hallam and Partridge, 2005).

In a recent report commissioned by the UK's Research Information Network (RIN) and the Consortium of Research Libraries (CURL) entitled *Researchers' Use of Academic Libraries and their Services* academics, library staff and library directors were asked to rate the relative

importance of librarians' roles in 5 years time. It is interesting to note the 'gap' between the researchers and the librarians views on the librarian as a subject expert.



— Library directors — Library staff — Researchers

(Sourced from Research Information Network Report, 2007)

Responses: Getting Ready for Library 3.0

The often quoted saying 'Today's solutions are tomorrow problems' was echoed at a recent SCONUL conference on the future of libraries. Keynote speaker Eugenie Prime suggested that libraries tend to hold on to yesterday's successes even if they are past their use-by date. She urged delegates to ask 'if this wasn't ongoing, would I introduce it to my library?' (Brewerton, 2006). She argued that the transformation is deliberate and to help make it happen libraries have to focus on the 'I's':

Institutionalisation – we need to create the right culture

Innovation – we need heretics to survive

Imagination – we need 'zaniacs' who don't accept the rules

Ideation – we need a culture that encourages ideas

Inspiration – we need to be inspired to do things differently

Following from this concept, we have the following examples:

Institutionalisation - Getting ready for the Nexters

We need to be prepared for their high expectations, "*since kindergarten they permanently oscillate somewhere between 'special' and 'brilliant' in all their endeavours*". (Salt, 2007)

We cannot expect them to pay their dues, they are unwilling to wait in line and want

promotion based on merit and not length of time in the job. (Davis, 2006). We should

however encourage them, mentor them and learn from them, but we must not throw a wet

blanket on their enthusiasm. We need to offer them flexible hours and attractive salaries.

We must not micro-manage them be aware that while they like to work in teams they also like individual praise and recognition for their work.

Innovation – Doing thing differently

Hand and in hand with Nexters expectations at work is to create solutions to Nexters customer requirements. Some new innovative services such as taking-the-service to the clients include Eric's "*Librarian With a Latte*" program from University of Michigan at Ann Arbor, Brian Mathews' Blog, *the Ubiquitous Librarian*, the University of California at Merced librarian Michelle Jacobs answering reference questions via SMS and in Australia, the Queensland University of Technology is offering a Chat Online service via MSN. McMaster University will be appointing its Immersive Learning (Gaming) Librarian in August 2007.

"The Immersive Learning Librarian will... be working along with our new Digital Strategies Librarian to make new resources accessible through new systems (like virtual worlds and gaming)... These new resources will combine traditional resources, new knowledge, and new systems.

...this position will be working with other librarians at McMaster to staff a new reference service point in Second Life. We are, therefore, expanding our reference service to include this new virtual world... Finally, this position, along with our new Digital Technologies Librarian. (McMaster University Library Blog, *ulatmac* May 1 2007, 4:13 am)

Imagination – changing the rules

The National Library of Australia recently held an Innovations Ideas Forum. The Forum brought together a range of speakers on topics covering infrastructure developments as well as resource discovery and delivery. The purpose of the forum was to provide an opportunity for librarians and others working on projects or programs that enhance the national information infrastructure to share information about innovative new ideas, developments and trends in providing access to information to all Australians.

One of the presentations focused on the rethinking the catalogue as it is no longer relevant in its current form. The catalogue should be a "*one-stop shop*" for searching resources, providing access beyond our local collection, and to different types of resources in a seamless way, underpinned by a "*single business*" model... Collaboration with a wide range of information providers (for example, Google, Amazon, LibraryThing, Wikipedia, Flickr, Digg, YouTube, Project Gutenberg, Internet Archive), exchanging, reusing and enriching each others' resources. (Innovative Ideas Forum 2007)

Traditional academic rules have been changed with the WISE (Web-based Information Science Education) model - a collaborative distance education model of online education programs in Library and Information Science. Comprised of over a dozen LIS programs in the U.S., Canada, and New Zealand, WISE enables students to take courses from participating institutions that their home institution does not offer. The vision of the WISE initiative is to provide a collaborative distance education model that will increase the quality, access, and diversity of online education opportunities in library and information science. In this environment and other online courses geography will no longer be a barrier.

Ideation – supporting and encouraging new ideas

As well as creating the appropriate working environment it is also necessary for new information professionals to be supported by their professional associations. The Australian Library and Information Association (ALIA) has established the Education Research Group that will work with the LIS sector to understand the needs of both educators and employers. In addition ALIA has established a New Generation Policy and Advisory Group (NGPAG) which aims to ensure that the association is relevant to new graduates. This links into ALIA's New Graduate Group – a very proactive group that provides a forum for the discussion of topics for new graduates. To date this group has run three very successful conferences for new graduates is planning a fourth and if these activities continue at the same pace Australia will be assured of the next generation of librarians leading the library profession through Library 3.0 and beyond.

Inspiration –doing things differently

As competition increases for our future workforce ongoing professional development as opposed to formal training in a library school will be the norm. There are indications that this is already happening. For example medical librarians world-wide are already taking advantage of a short on-line staff development program - *Evidence-Based Medicine and the Medical Librarian* offered by the School of Information and Library Science at the University of North Carolina. The format of the course is a combination of course material, independent readings, reviews and exercises. Students also are required to participate in discussions through the course listserv.

A new course that has just 'sold out' is the continuing education course presented by the Illinois Alliance Library System and University of Illinois Graduate School of Library and Information Science (GSLIS) entitled *Virtual World Librarianship – your Second Life*. The course consists of 6 two hour synchronous sessions which will meet in Second Life together with asynchronous discussions and weekly assignments.

Other developments include free web based instruction similar to the popular *Five Weeks to a Social Library* which is the first free, grassroots, completely online course devoted to teaching librarians about social software and how to use it in their libraries.

In Australia, the Australian Library and Information Association (ALIA) has recently introduced its FOLIOZ (Facilitated Online Learning as an Interactive Opportunity) program which aims to provide easy access to learning material with the convenience of flexible timing and learning styles. FOLIOZ is aimed at meeting the needs of librarians who often find it difficult to get away from the workplace to attend training because of staff shortages, limited budgets, travel time and other difficulties. The first course target information skills and is inexpensive to undertake. This is a joint program between ALIA the University of Sheffield in the UK.

Conclusion

Library 3.0 is just around the corner and with foresight and planning we are confident that libraries will overcome the barriers. Current experience suggests that librarians will spend an increasing amount of their time in the electronic frontier. Many dimensions and properties of this electronic frontier is unfamiliar and uncharted territory and our survival depends on well we adapt our values and skills.

With digital collections "remote access", and virtual reference; access is on point of need so the issue is function and service not people and service. Services will be in a variety of forms and places. So what does that mean for Librarian 3.0? Ability to collect and provide information and to offer instruction in research techniques and information use rather than by physical presence as somewhere people go. Librarian 3.0 will also have to offer alternative services such as help at the 'point of failure' and other value added services.

Librarians or library staff of the future will have to be prepared for lifelong learning. Some library staff may not be library trained so continual professional development will be part of their everyday work.

No one person can be expert in the vastness of cyberspace and librarians will seek new alliance and develop new talents. Those libraries or librarians that don't will not be around to work with Library 4.0. Those that will be would have taken heed of the following words from the naturalist Charles Darwin- *'It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change'*

Library 3.0: where art our skills?

Positions Vacant

Information Technology Consultant

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Duties:

Work collaboratively with faculty and consortium members to provide relevant support services including virtual information services that provide both specialised and general reference services. Integrate information objects into personalised and customised learning portfolios. Develop and participate in user education programs with an emphasis on specialized and value-added services. Participate in fund raising activities including identifying future partnerships.

Selection Criteria:

Knowledge and expertise

- Knowledge of the concepts of information organization, storage, retrieval, and transfer, including the application of computer, instructional, and other information management technologies.
- Experience in some or all of the following - web writing, graphics software, Web publishing, social networking tools and e-learning software.
- Experience in the development and provision of both on-site and web-based training.
- Ability to lead or participate in software development projects managed using a formal project management methodology.
- Experience in, or understanding of Web 3.0 technologies

Personal skills/attributes

- Flexible and able to respond positively to change
- Strong analytical and conceptual skills
- Self-motivated and able to use initiative.
- Demonstrated ability to achieve high-quality results within required timeframes.
- Excellent interpersonal and communication skills.
- Excellent customer service skills
- Excellent written communication skills
- Demonstrated ability and willingness to experiment with emerging technologies

Qualifications

Recognised tertiary qualifications in library and information studies; or recognized tertiary qualifications; or other qualifications or experience, which in the opinion of iPlanet University are appropriate to the duties stated.

iPlanet University recognises the important contribution its staff make towards meeting its goals and offers a satisfying and rewarding work environment. It values creative, innovative staff with a demonstrated commitment to excellence. We welcome diversity, including diversity of educational background and cultural heritage. Staff of iPlanet University enjoy competitive salary rates, training and development opportunities and flexible employment conditions help staff combine work and personal responsibilities.

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