Editors' Comments

Special Issue Editorial
New Approaches to Optimizing the Digital Workplace

Special Issue Editorial – Part Two

This March 2019 issue of *MIS Quarterly Executive* extends the December 2018 Special Issue focus on one of the consistently most pressing issues facing IT leaders: optimizing an increasingly digital and diverse IT workforce. This special issue topic spans the full spectrum of managerial issues: reframing whom the IT worker is, tapping new sources of IT talent, identifying quality IT workers, retaining IT workers, and managing digital transformation throughout organizations.

Six Perspectives for IT Leaders on Optimizing the Digital Workforce

A total of six articles are included in this two-part special issue. In this March issue, we present the fifth and six articles.

The fifth special issue article presents a successful digital transformation, including a transformation of information systems, business processes, and the entire workforce. While each of these present substantial challenges, **Rebekah Eden, Andrew Burton-Jones, Veronica Casey,** and **Michael Draheim** show how digital transformation and workforce transformation are intertwined and that culture and transparency can be the glue that keeps a transforming organization together. They reveal what interventions and practices facilitated this dual transformation at a large health service transformation in Australia. They suggest that three practices – flexing, deepening, and revitalizing – helped overcome the significant challenges involved, and made possible a successful digital and workforce transformation. The success of the transformation rests on long-term cultural transformation, a clear data governance structure, collaborative visioning, and building capabilities for dealing with change-as-usual. They challenge us to see that system implementation is not an end-goal, but an enabler of change.

The potential benefits of virtual work by virtual teams are clear in the sixth and final special issue article on new approaches to optimizing the digital workforce. Employee knowledge and skills can be combined from throughout the global reach of an organization for customized group work to solve otherwise intractable problems. However, realizing such benefits entails creating systems – both technical and procedural – to overcome communication barriers and facilitate smooth virtual team functioning. **Andreas Eckhardt, Anthony Giordano, Florian Endter,** and **Paul Somers** propose an actionable framework, the Virtual Work Stage Model, to help executives benefit from and optimize the work of virtual employees in their organization. To set the stage, the authors focus on three areas of preparation for building a virtual workforce: the mental employee considerations, the required technical solutions, and the relational environment needed for coordination and collaboration. The Virtual Work Stage Model was developed through experience-based interviews with managers at two leading technology companies: Trello and Buffer. The authors build on these industry experiences and prescribe a three-stage approach to going virtual that includes preparation, and finally virtualization. The authors are pragmatic and offer several critical lessons learned that executives might consider when applying the model. Many of these considerations stand in contrast to what common practice might suggest, particularly with regard to social expectations and trust building.

As a reminder, we encourage you to visit or revisit the first four special issue articles published in the December 2018 issue of *MIS Quarterly Executive*.

The first article by **Eleanor Loiacono and Huimin Ren** (Dec 2018 issue) addresses why we need to reframe the characteristics of the IT workforce, arguing for why diversity needs to expand its definition to include "neurodiversity". They explain that neurodiversity is *"the variation and differences in neurological structure and*

function that exist among human beings, especially when viewed as being normal and natural rather than pathological [i.e., disability or impairment]."[1] Given that organizations report shortages of skilled IT workers across the board, and particularly in specialty areas, efforts to broaden the baseline of individuals eligible for such work stands to reason. Loiacono and Ren examine the area of neurodiversity, explaining that the number of individuals exhibiting a variety of conditions continues to grow. This variation among the population of workers presents an opportunity that benefits diversity in the workforce. They share insights from leaders at two organizations with successful programs that acknowledge the value of neurodiverse individuals. In order to integrate this neurodiverse workforce, the authors suggest a programmatic approach to recruitment, advocacy, accommodations, and managerial support. Toward the goal of expanding the range of successful workers, the authors advocate: (1) creating an executive sponsor for creating the neurodiverse workforce; (2) reorganizing hiring and selection processes to "screen in" promising candidates; (3) providing appropriate education and training; (4) creating an open communication regarding neurodiversity; and (5) considering the societal contribution of helping a challenged subset of the population toward meaningful contribution. Loiacono and Ren challenge us to open our thinking on the diverse characteristics of the IT workforce. They also provide guidance and resources to help us do this.

Access to the IT workforce is shifting as we see more workers opt for more control over their work life balance or seek a more balanced pace in their work-life arrangements. This so-called GIG economy is encouraging a number of emerging alternative arrangements that IS managers can consider for generating computing results. One of these approaches is *IT Crowdsourcing*. **Joseph Taylor and K.D. Joshi** (Dec 2018 issue) bring us a unique voice – that of the IT crowdsourced worker. Using vignettes to share experiences and lessons learned, this viewpoint helps IT and HR managers better understand where and when (for what type of tasks) crowdsourcing provides advantageous outcomes. They also

share methods for extracting these benefits and for blending this tactic with other IS staffing approaches. This article probes a particular type of crowdsourcing where a neutral platform acts as an intermediary for clients and providers. They explain the process where the client posts a job, potential providers provide bids, the client posts funds to an escrow account, and funding is released as the job is completed. Both client and provider have the opportunity to rate one another. Advantages of such relationships include attracting employees to the workforce who would otherwise be unavailable. The authors share the employees' perspective of why they are viewed by clients as adding value by providing clients with "on demand" access to specialized skills and labor without the commitment of long term arrangements. The authors summarize options and opportunities for firms to adjust their work processing systems to take full advantage of this source of labor.

Although formal education and training are an excellent source of skill development for IT workers, additional routes exist for gaining skills and experience. **Stacie Petter, Connie Barber, Diane Barber, and Robyn Berkley** (Dec 2018 issue) propose that potential employers of IT workers consider the array of skills derived from on-line gaming, particularly when the IT labor market grows tight. Skills identified as being developed or enhanced through on-line gaming include leadership, communication, decisiveness, and collaboration. Not all games are created equally and this insightful article distinguishes among different game types, suggesting which skills accrue for each type. The article acknowledges problematic societal issues sometimes associated with on-line gaming. Additionally the authors suggest how to prepare the organization, recruit talent, and select candidates with game derived skills as one input into the process. This article also presents experience-based interview questions that IT recruiters can use to elicit information about job candidates about learning accrued from gaming experience. Petter et al. go beyond asking us to face our biases about online gaming by providing new techniques and insights for IT leaders and HR managers.

The challenge of retaining key IT workers has been a source of difficulty for many firms

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1   http://www.dictionary.com/browse/neurodiversity. Accessed Oct 5, 2018.

since the introduction of computers in the mid-1900s. However, much of the work regarding retention has treated IT workers (or workers even more broadly) as a single homogenous group. **Christoph Pflugler, Nico Becker, Manuel Wiesche, and Helmut Krcmar** (Dec 2018 issue) take a different approach by differentiating IT worker types based on careful examination of different circumstances and challenges that lead IT employees to leave the firm. They list seven turnover types ranging from those whose jobs and skills/interests are not tightly matched, through to employees who just need something new. Their approach represents a different and pragmatic perspective on what has been a heavily researched topic in human resource and IT management. What is unique and helpful in this study is showing the correspondence between worker types with particular sets of interventions. These interventions go beyond compensation, and include suggestions for new work arrangements, career development, relationship management, and learning opportunities. The authors are realistic in understanding that many firms will not have the resources to provide all interventions for all workers and may not be able to differentiate workers precisely into types. Nonetheless, these guidelines and insights provide a basis for firms to customize their own policies, resources, and actions to improve retention outcomes.

Strategic Imperatives

The articles included in the two *MISQE* special issues (17:4 and 18:1) provide practical and insightful advice for CIO's, HR executives, other organizational leaders, and IT workers. In addition, we have shared some of our own thoughts and reflections. We share again our four integrated imperatives for the near term and moving into the future.

1. Embrace and leverage societal drivers of the evolving digital workforce

The Alignment of IT with business goals has been a top issue for IT leader for decades. As evidenced by all of the organizations who shared their experiences here and in the next issue, alignment of your IT strategy and digital workforce strategy with global and societal changes is just as important. Leading organizations emphasize that you cannot disentangle your organizational goals from your communities, customers, and society. To be successful, alignment with society's needs, diversity, and emerging work arrangements is more than philanthropy; it is a critical success factor. Similarly, the social impact of your employment practices is especially important for IT leaders where new technologies will disrupt or displace workers or jobs. Organizations already have to adapt to the aging of the workforce and loss of skills and experience. At the same time, there is an assumption that younger generations adapt more easily to technological changes. While new IT workers are graduating each year and bringing new skills, it is a fallacy that we will age-out the older generations who must learn and adapt to new technologies. There will always be new technologies and those who have to learn and adapt to them, versus those who grow up with them. The children of today may be no better prepared to deal with future radical technological changes than the generations before them.[2] Aligning with societal drivers and/or values will help you identify and respond to shifts in the digital workforce. Broaden your thinking about alignment now, because changing your culture takes time and benefits will accrue the sooner you start.

2. Organizational culture, IT culture, and digital culture are inseparable

An overarching lesson is that culture matters as a foundation for organizational transformation. We know that establishing a culture that embraces flexibility, continual learning, and customer focus is critical for organizational transformation. Some lucky few may already have such a culture in place, others may think they do until it is tested, and others will know that building such a culture will take vision, persistence, attention to traditional human resource activities such as hiring, training, and career path, and continual cultivation. Increasingly, a culture of change-as-usual needs to be balanced with an environment where experimentation, evidence based change, and exploration can be integrated. Moreover, culture is not a single variable with a predictable

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2   World Economic Forum. Op. cit. 2017.

outcome, but rather culture is something that is reshaped continuously. More than the culture within IT, or the organizational culture in relation to IT, the concept of a digital culture needs to be embraced. This includes aligning your culture, your full-time and part-time workforce, and your own role in developing sustainable, inclusive, and trustworthy digital future. Strive to increase transparency so that all workers know why change is necessary, for example, through interdisciplinary and skip-level meetings, and collaborative visioning.

3. Create and foster initiatives toward increasing inclusiveness and diversity

Engage in discussion with your employees, customers, community, and your leadership on what the digital workforce will and should look like in the future. Diversity of the digital workforce is much more than demographics. Managers must consider critical questions: have you engaged with your diversity and HR leadership to discuss what inclusion means, what diversity initiatives are already in place, and how to optimize these to source and retain potential IT talent? To be successful in the future, you will need to embrace diversity in how you define the broader digital workforce, the IT worker, and the IT leader. As such, revisiting your practices for sourcing, attracting, recruiting, developing, and retaining will help you identify areas that have embedded systemic bias or rigidity. How are your values embedded in your practices? Do not underestimate the importance of top-down and bottom-up communication of the organization's goals, or how roles and departments fit into achieving these goals. While this may sound like rhetoric, each of the articles included in the special issues address the importance of accepting differences and encouraging personal relationships, trust, and open communications. This is not easy, especially in larger companies or those with distributed workers, but is a tone set from the top. Beyond digital communications like email, texting, tweeting, Instagram, or video, is the importance of getting to know people as individuals. This issue remains the same, even as we ready for the ongoing transformation of the digital workforce.

4. Rethink and reimagine workforce practices that are adaptable and evidence based

Link digital and workforce transformation by "Flexing, Deepening, Revitalizing". Do not just talk about the importance of learning; embrace and support it from the top. What are you doing that enables or inhibits optimizing your access and engagement with the evolving digital workforce? Is your firm exploring new options to source the evolving IT workforce? Have you developed a task-specific means of curating and managing sourcing portfolios? Have you assessed your contracting arrangements to address the full range of workforce options, including task redesign to address security issues? Has your organization evolved to consider alternative or modified recruitment techniques that may provide greater insights into the talents of neurodiverse candidates of all types? What assumptions do your people hold about where people acquire their IT skills and what those skills actually are? The so-called "soft" and "hard" skills are both important to success in the digital economy. Are you continuously working to identify better practices and evolving your work culture to both anticipate and respond? Are you systematically learning based on facts? Do you have the metrics and process in place to verify your interventions are working? To be ready for the future, you should revisit your major pain points now. Then, open dialogue, and discuss broadly where you wish to invest in the changing digital workforce to be ready for the future. Encourage visioning and scenario analysis exercises to identify issues that will have to be managed in the medium and longer term.

The IT workforce has changed and continues to change. We titled this special issue *"New Approaches to Optimizing the Digital Workforce"* because we believe current conceptualizations of IT workers housed within a formal IT department is dated and limiting. This applies whether you have your own IT group, or outsource your information systems development needs. A shared lesson learned across all the articles is that there is much to be learned from a broader definition of *who and where* the IT workforce and IT skills actually are. Increasingly, IT work has bled over into the line and support areas of your organizations. The so-called

"shadow IT" in organizations has created new challenges, but also reflects digital skills, needs, and innovation embedded outside the formal IT structure. Have you envisioned the changes to work and the role that technology might play in the next ten to twenty years? Are you engaging with researchers and actively learning from experience elsewhere to facilitate evidenced-based improvisation? The mode of working is also shifting, and this is especially true for those who can work virtually, are challenged by traditional office settings, want better work-life balance, or who want to embrace the flexibility the GIG economy offers. Retaining your digital talent is a longer-term issue that requires maintaining good relationships with current and former employees. Keep transformation going by collaborative visioning, evidenced-based improvisation, and managing tensions.

The full editorial with commentary and guest editors' perspectives are published in the December 2018 Special Issue (Vol 17, Issue 4).

Best,

Michelle, Fred, Jeria, and Tim

About the Special Issue Guest Editors

Michelle Kaarst-Brown

Michelle Kaarst-Brown is an Associate Professor at the School of Information Studies and a Laura J. & L. Douglas Meredith Professor, Syracuse University (a lifetime appointment). She draws upon almost two decades of management and consulting experience to focus on theory and empirical evidence that assists organizational leadership with IT governance issues. Within the context of large and small enterprises, her work clusters into three intersecting research streams: *IT culture and symbolism, managing the IT workforce, and impact of perceptions of IT risk and opportunity on IT security, innovation, coping, and compliance.* She initiated and leads the Enterprise Risk Management courses at the iSchool and is the former Program Director for their Doctorate of Professional Studies in Information Management. Dr. Kaarst-Brown has published in a number of top academic and business journals including *MIS Quarterly, MISQ*

Executive, Information Technology and People, Journal of Strategic Information Systems, Project Management Journal, Journal of Organizational Change Management, and Journal of the American Society for Information Science and Technology (JASIST). She is a Senior Editor with *MIS Quarterly Executive* and former Associate Editor for *MIS Quarterly*. Dr. Kaarst-Brown can be reached at mlbrow03@syr.edu

Jeria Quesenberry

Jeria Quesenberry is an Associate Teaching Professor of Information Systems at Carnegie Mellon University. Her research interests are directed at the study of cultural influences on information technology students and professionals, including topics of social inclusion, broadening participation, career values, organizational interventions, and work-life balance. Her work has appeared in many leading journals and conferences including the *Information Systems Journal*, *European Journal on Information Systems*, and *Data Base for Advance in Information Systems.* She is also co-author, with Carol Frieze, of the book *Kicking Butt in Computer Science: Women in Computing at Carnegie Mellon University,* which tells a positive story of how Carnegie Mellon challenged the existing narrative of approaches to women's participation in computing. She is currently working with Frieze on a new edited book *A Global Perspective on Women in Computing* (working title), with an expected publication date of spring 2019 from Cambridge University Press. Dr. Quesenberry can be reached at jeriaq@andrew.cmu.edu

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Fred Niederman serves as Shaughnessy Endowed Professor at Saint Louis University. His PhD is from the University of Minnesota in 1990. He serves as senior editor for *Journal of AIS* and as a Department Editor for ICT on the editorial board of *Project Management Journal*. He has published peer-reviewed studies in numerous top journals including *MIS Quarterly, Journal of AIS, Journal of Strategic Information Systems*, and *Journal of MIS*. He serves on the editorial boards for the DATABASE for advances in *MIS, Communications of AIS, AIS Transactions on Replication Research, Human Resource Management,* and *Journal of International Management.* He has edited or

co-edited numerous special issues on a wide variety of topics including "Breakthrough Ideas" for *Communications of AIS*. His areas of research interest include IS personnel, IS project management, philosophy of science applied to IS, qualitative IS research methods, effects on IS of mergers and acquisitions, global IS, and group collaboration and teams. He is proud to be counted as a member of the "circle of compadres" for the KMPG PhD Project. Dr. Niederman can be reached at fred.niederman@slu.edu

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