Imagine it's 2022 and you are a senior executive with responsibility for several million sq ft of advanced manufacturing capability.

It's a great job. From your 13 manufacturing facilities strategically positioned around the globe, you serve primarily OEM clients in several industry sectors with diverse capabilities, ranging from basic to advanced processing of polymers, rubber, exotic metals, proprietary laminates, and more, to creating precision subassemblies.

Yes, the past few years were challenging for you, with wavering trade agreements and new tariffs, currency fluctuations, political turbulence and natural disasters in major markets, global terrorism, and a surprisingly weak market for consumer goods loaded with pricy new technology. Flexibility and responsiveness have been key to your staying profitable, plus you could not have choreographed this success with your 29 direct reports if it hadn't been for finding a better way to manage people.

Searching for a better way

Your search for better ways to work started a few years back, following a second year in which your manufacturing group made almost no progress in recovering from the single-year loss of 42% of your revenue, resulting from a perfect storm of acquired clients, bankruptcies and other precipitous market changes. When pushed for an explanation of your group's performance, you didn't hesitate to point out that you make things that other people sell, and you can't make what they don't sell.

You knew this defensive refrain wasn't funny, but, as you intended, it supported your case to the CEO to accept your proposal to take on the marketing and sales function on which your group depended. Sales saw this change as a burden lifted, so it could refocus on other industries and markets targeted by other units. As a result, you got to create your own organisation just as you wanted it.

You quickly held online, a week-long asynchronous planning meeting, bringing together, not just the leaders, but anyone in your global manufacturing group who wanted to participate in planning for the manufacturing group's future. This open-call approach brought forth frontline experience, new perspectives and promising ideas from throughout the group, and provided management a fresh view of the organisation's current talent and potential leadership.
Everybody knows you either get a good manager or a bad one, and, if you have a good manager, you can be sure they’ll get promoted and then you’ll get a bad manager.

Sharing the challenge to surface new options
One of the promising ideas surfaced this way involved a different way to manage people and their work. Yes, I know. You’re wondering what could be so different about the way people are managed? Everybody knows you either get a good manager or a bad one, and, if you have a good manager, you can be sure they’ll get promoted and then you’ll get a bad manager. Managers look at it the same way. Employees are either good workers or bad workers. The good ones eventually leave for better jobs that pay more, and the bad ones find a way to keep their jobs despite all kinds of infractions. What could possibly change this?

Lucas, the production cell-group manager who presented the idea said he’d been using it for almost four years, and he’d give it credit for his cell group consistently leading the way in profit margins, routinely by double digits, having risen from the poorest performing before using the idea. This claim naturally attracted your attention, and, after verifying the numbers, you arranged to meet online with this manager, one-to-one, so you could learn more.

Lucas explained that it all started one day when he was called to the office of his plant’s VP and introduced to two people he was told were there to perform some research. They wanted to study a people-related problem and would give him their recommendations to test.

Lucas continued. Over the next two weeks the researchers observed the operation, interviewed him and several of his people, and collaborated with him to test a few suggestions that seemed harmless. They had him hold a five-minute morning stand-up check-in meeting with all his employees, briefly chat with a few of his operators while they set-up in the morning and following lunch, ask for volunteers to work on a special project, and even had him analyse the operation’s lackluster performance numbers to identify something his group was doing well or improving . . . and arranged with HR to present everyone with a small cash bonus to recognise this achievement.

“That’s it, you asked, that’s all you did to get the performance increase? What had you been doing, beating your employees?”

“You laughed to lighten the discussion, and Lucas laughed with you. “Oh no, I think the research people were just testing some ideas, probably for my benefit, so I could experience a different way of managing people.”

“It was surely amazing,” he continued, “but the real changes didn’t start until I received the consultant’s recommendations, just before their departure. And even though they left physically, they continued for several months to patiently guide and support me through the implementation of their recommendations. They still check-in with me now, every few months. Do you want their email address? I can also send you their recommendations.”

Due diligence
You were intrigued, though far from convinced this idea held promise for setting up your new marketing and sales efforts, and quickly generating new business for your manufacturing group. However, few other suggestions about how to organise and manage came forth in the week-long planning session. Most of the emphasis was on underutilised design and production capability, clients with additional potential business, people having interest in the marketing and sales positions to be created, suggestions to improve the organisation’s effectiveness and speed in responding to sample part and quotation requests.

For each suggestion made, small teams of three to five volunteers accepted responsibility to examine them and make recommendations within two weeks at a follow-up online planning event. Your interest prompted you to encourage two of your stronger manufacturing VPs to volunteer for the team considering Lucas’ suggestion. They emailed the ‘research people’ as Lucas suggested, and this led to several online face-to-face discussions, sharing the challenge and learning how other organisations were using humaneering.

You were rightly proud of your people who, from all levels and many roles, participated in the follow-up online planning session. Thirty-one teams presented their insights and recommendations for a suggestion, using TED-like presentations and submitting a maximum five-page summary document. The energy and commitment were palpable. You didn’t realise so many in your organisation had the leadership potential they demonstrated, a comforting thought given the challenge ahead.

Retiring legacy management methods
Lucas presented for the ‘humaneering’ suggestion team, summarising his personal experience, sharing several insights he learned about people and management, and making a few specific recommendations. The details exceed the space available in this article yet might be summarised by saying simply that the engineering-inspired approach to managing organisations and performing human work -- largely attributed to Henri Fayol and Fredrick Taylor respectively and still widely utilised by many companies -- severely limits the potential of people managing today’s more complex organisations and people performing today’s more complex work.

Furthermore, Lucas provided a quick review of these principles to show that many, while originally effective for manual work, had since been compromised in some organisations, thereby reducing their effectiveness.

Henri Fayol’s 14 organisation management principles briefly explained
1. Division of work and repetition for speed and accuracy
2. Authority to give orders and obtain obedience
3. Employees obey and respect the rules
4. Every employee receives orders from only one superior
5. Organisation groups with the same objectives are directed by one manager with one plan for achievement of one goal
6. The interests of any one person or group should not take precedence over the interests of the organisation
7. All workers are paid a fair wage for their services
8. Centralisation over decentralisation (ie employee involvement in decision making)
9. Communication should follow the line of authority from top management to the lowest ranks
10. Every employee has a specific place in the organisation
11. Managers should be kind and fair to their subordinates
12. Organisation staffing should be stable (limit turnover) and vacancies promptly filled
13. Employees who can originate plans will implement them with high levels of effort
14. Promoting team spirit will create harmony and unity

Frederick Taylor’s work design principles briefly explained
1. Replace rule-of-thumb (ie, casual) work design with work methods based on scientific study of the tasks to be carried out
2. Scientifically select, train and develop each worker for their specific tasks, rather than passively leaving them to train themselves
3. Cooperate with the workers, giving them clear instructions on what they must do, then supervising them to assure that the scientifically developed methods are being followed
4. Divide work nearly equally between managers and workers, so that managers apply scientific management principles to planning the work and workers, in fact, perform the tasks as designed

Managing knowledge work
Today’s otherwise sophisticated businesses sacrifice vast amounts of human potential for creating additional economic value (ie, intellectual capital) at all levels and in all roles within their organisations. This is due primarily to deficiencies in organisation management methods and human work design (ie, structural capital) needed for employees to perform knowledge work that maximises their creation of economic value (human capital). And because so many of today’s legacy management methods are widely considered to be ‘best practice’, organisation leaders are lulled into complacency as next generation organisations actively search for and pioneer better ways to manage people.

Let’s be clear. These legacy methods are still the correct choice for the ‘manual work’ found in today’s jobs (eg, standard work). For this 10% to 30% of the work still needed in advanced economies, these principles are as relevant as they ever were. However, the use of these methods to standardise, mechanise or automate knowledge work reduces its potential for creating economic value. Various forms of AI can augment the human performance of knowledge work yet only rarely will AI be sufficient to replace human discretion and expression. (Figure 1 illustrates the limits of engineering to designing manual work.)

The human potential that remains largely undiscovered or undeveloped is for ‘knowledge work’ -- the growing component of human work that involves increasing levels of human discretion and expression. In the early 20th century, only ‘owners’ or their chosen ‘assistants’ or ‘foremen’ worked in roles requiring discretion. Now, virtually all human work includes some knowledge work, and most jobs are roughly equal parts of manual work and knowledge work. (Figure 2 illustrates the proportions of manual work and knowledge work in many job roles, and further correlates the human work archetypes to seminal thinking on work design.)
## Human Work Design Archetypes

### Operational Classification
- Creation
- Service
- Logistics
- Production

### Core Challenge
- **Objective:** Not Clear
- **Solution:** Not Clear

### Peter Drucker:
- **Value Creation:** Creating Knowledge
- **Achieving:** Applying Knowledge
- **Moving:** Making Things

### David Snowden:
- **Complexity:** Chaotic
- **Approach:** Novel
- **Process:** Act Sense Respond

### Robert Wysocki:
- **Project Design:** Goal/Solution
- **Convergence:** Convergence

### Elliott Jaques:
- **Mental Process:** Parallel

### Hersey/Blanchard:
- **Management Style:** Delegating

### Job Examples
- **Job will vary by situation:**
  - Executive
  - Entrepreneur
  - Scholar/Researcher
  - Designer
  - Inventor
  - Manager/Supervisor
  - Servant Sales
  - Entertainer
  - Analyst/Engineer
  - Physician/Nurse
  - Craftsperson

### Industry Examples
- **Companies will vary based on strategy:**
  - Start-ups
  - R & D
  - Design
  - Advertising
  - Biomed/Pharma
  - Consumer Products
  - Hospitality/Leisure
  - Restaurant
  - Retail "Shops"
  - Police/Security
  - Consulting/Training
  - Medical
  - Transportation
  - Fast Food
  - Retail "Marts"
  - Banking/Insurance
  - Education
  - Utilities
  - Manufacturing
  - Construction
  - Chemical/Refining
  - Farming
  - Garment
  - Printing

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**Figure 1:** Copyright 2016 Humaneering Technology Initiative, LLC. All rights reserved.
Humaneering principles
Most notable in Lucas’ presentation was his description of the opportunity being created by the new applied science of humaneering, which has been created to design and manage human-dependent knowledge work. No longer must managers design and manage all work as though it’s manual work or design the manual work but leave the knowledge work for laissez-faire execution. With the application of both engineering-based and humaneering-based methods, jobs with work of both types can be designed for maximum performance of both manual work and knowledge work.

Humaneering is a global initiative for social good (https://humaneeringtech.com) and still in beta release, so a full set of its principles and methods for human work design and management are not yet published so they can be included here. Though not official, here’s a list of the humaneering principles shared by Lucas and applied in his team’s recommendation.

Humaneering work design and management principles briefly explained
1. Humaneering probably has the most comprehensive, continuously updated, transdisciplinary evidence-based management (EBMgt) knowledge base from which to design and model human work, management methods, jobs and organisations
2. Business process design should extend to the roles of people, the work they perform, the work environment within which they work, and the design of their jobs
3. Role objectives should provide the purpose and goals for the role, while human nature should drive the design of the role’s human work and work environment, and its worker selection
4. Differentiate the two types of work, manual work and knowledge work, and design each for maximum sustainable performance, and the overall role/job for maximum economic value (ie, excess capacity should be channelled into creating additional economic value)
5. All designs (or work/role/job characteristics) are dependent on the situation (ie, initial conditions), such that an optimal design for one situation cannot be assumed to be optimal for any other situation
6. Human behaviour is well explained by the biopsychosocial sciences on which humaneering is conceived, and optimal sustainable work/role/job performance is possible only when workers are treated in such a way that their most fundamental human needs (ie, security, relationships, learning and increasing prosperity) are at least partially met and their potential to create economic value and personal satisfaction is progressively developed

Learning to design, not just let go
You felt confident that whatever recommendations were made by Lucas’ team would be tempered with the experience and caution of the two plant VPs you arranged to work with him. You were surprised then when he recommended that the entire new organisation of about 20 marketing and sales pros report directly to you, without any mediating managers to lessen your two-way communication with this critically important group.

The reasoning was that people enjoyed working for you and would naturally work smarter if you were directly supporting their work. Similarly, this direct involvement would keep you informed so that you could rally resources or other support when needed in the field.

That all sounded good, but you were still wondering how in the world you were going to manage about 30 people spread across the world? The answer was that you wouldn’t have to. In fact, the number could grow to 60 and still not be unreasonable. This difference was possible with humaneering-based work design and management, which essentially designs both employee and manager needs into the work and job, such that problems and issues are almost nonexistent. Your contact with your people will be a generative experience for both the employee and you.

In most organisations, managers end up spending their time on problems and issues that should have been designed into or out of the work or job involved. Because human work and jobs are now rarely designed beyond a sketchy job description to justify compensation or attract candidates, the problems and issues created end up being a full-time job for managers (ie, management by exception rather than the more desirable management by design).

There’s probably nothing I could say in this article to paint a picture of what human work and managing with humaneering looks like. Though most people would agree that anything that is designed is better than the same thing not designed, most of us also have so much experience with people responding problematically to their treatment that it’s understandably difficult to imagine the situation being any other way. People who try humaneering are encouraged to resolve one challenge at a time. When it works the first time, then they might look for another challenge to resolve.

This scenario might resemble an experience you will have in the future, yet I can tell you now this is a real situation I was involved in four years ago. Just last month I visited with the SVP and learned that the humaneering-based approach he utilised for managing his new marketing and sales team turned out better than expected. Within only two years the group surpassed its prior revenue record, and future commitments assured even more record setting in the years ahead.

The better way to manage people this article promises is accomplished by better designing their work. It simultaneously increases job performance and employee satisfaction, while freeing managers from a continuous flow of people issues to focus on higher-value growth and improvement initiatives. Think of it as managing with work design, or managing by design, or whatever you want.

About the Author
Dr James (Jim) Pepitone specialises in improving the productivity of knowledge workers and has served clients across most industries and regions of the world. He was instrumental in founding the Humaneering Technology Initiative in 2002, served in numerous volunteer and operational roles since, and recently became the Acting CEO to prepare the organisation for open release of v4.0 beta.

His career includes industry positions as VP of Sales for a division of Automation Industries (now Honeywell) and General Manager for Cybertek, both public companies, and continued as a management consultant. Jim’s education includes a BBA in Industrial Management and MBA from the Univ. of Texas at Austin, and an MS in Organisation Development and Ed. D in Organisation Design from Pepperdine Univ. in California. He can be contacted at james.pepitone@humaneeringtech.com.