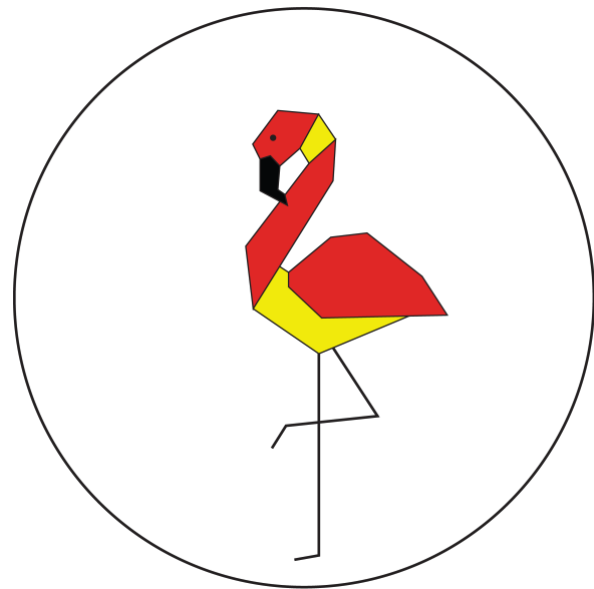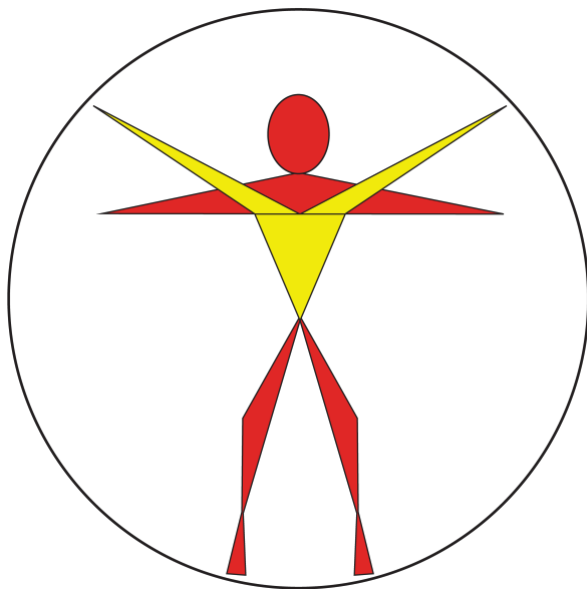# SciPhD Online Certificate Program

The Business of Science for Scientists: Core Professional Skills that Make You Competitive for a Professional Career

With Flamingo   Integration

Student Manual

Personal Copy Belonging to: _____

Technical Literacy
Emotional Intelligence
Social Intelligence
Style Flexibility

Successful Communications as a Scientist

Overview

Your transition from academia to industry will require an upgrade in your communication competencies. Every leadership and job performance analysis places communications in the top 5 required competencies to be successful in industry. You are about to transition from a small close-knit and independent work group to a complex array of hundreds of interdependent professionals that are all focused on achieving common, as well as individual goals. Most of the non-science professionals have managed to skip science in their education. Most are very good at what they do. You will be part of this cross-matrix team and will be communicating with a wide variety of audiences. How quickly you can develop rapport, enable trust, and create a sense of shared ownership are your new set of communication performance outcomes.

The four sessions of Successful Communications as a Scientist are designed to get you thinking beyond the technical content of your communications and begin to use your entire brain: the logical data-driven thinking dimensions, the affective and emotional engagement dimensions, and the socially attuned and shared ownership dimensions. One must attend to these "stages of communications." We have found that using the 3 communications dimensions of content, affective (also called emotional or empathetical) and your social role is very effective in making this communication transition to industry. Using these three dimensions engages the whole brain in communications: logic, emotion, and social affinity.

Also available in the Appendix from our SciPhD onsite programs, are some of the expected cognitive biases in communications as referenced "Thinking Fast and Slow." Looking at our language from this cognitive bias level may provide insights into how various communication techniques can help in the lab as well as in your job-hunting activities.

The four competency levels of communications (technical literacy, emotional intelligence, social intelligence, and style flexibility) are unique to the SciPhD communications model. Our experience in science communications is that there is interdependency within that hierarchy. You must express the data at the proper audience level of understanding. Technical literacy directly addresses this and can be expanded and practiced beyond the scenarios that you will experience in this course. For example, in addition to effectively communicating with scientific peers and your grandma as two extremes, consider how you could effectively communicate with people ranging from executives with finance backgrounds, to medical patients or to the public.

Next, we introduce Emotional and Social Intelligence. How do you maintain a positive engagement no matter the emotional environment? What techniques can be deployed that help deliver answers that are in the context of the audience; adding value to their world versus giving answers based on your academic world? One essential concept is learning to shift from "Expert" to "Learner" role as this will be a theme for much of the course and will have a profound impact on your effectiveness in communicating, particularly in difficult situations. We have found that non-industry PhD science communicators have mastered the

science data message but often have not developed their relational communication process insight, especially when it comes to influence communications and nurturing a shared ownership of purpose. Breaking the routine or habit of immediately answering any question to which you have an answer is a big shift in demonstrating mastery of content. It is important to demonstrate this "Ask Questions *You Know the Answer*" behavior as we will be using this technique throughout the course.

The finale session on Style Flexibility begins by introducing you to your own brain biases when relating with the outside world. The focus here is to recognize that different people have different preferences with respect to how they interact with other people, how they prefer to consume new information, how they analyze and make decisions about that information, and how they act on that information. Style Flexibility builds on your experience of technical literacy that was addr emphasis is for you to appreciate these differences in people with whom you interact and adjust *your* communications style to fit their preferences rather than expecting them to adjust *their* communications style to fit yours.

We also provide a simple 8 question diagnostic about your communication habits. Your total score is an indicator of your sophistication level of communications. Your low scoring questions are opportunities for improvement and your high scoring questions are your strengths in communicating. You can repeat this diagnostic about every six months and watch your habits in communications change.

Communication Competencies

- Technical Literacy
- Emotional Intelligence
- Social Intelligence
- Style Flexibility

The degree of required communication mastery varies with each audience: their technical knowledge, preferred data input and decision-making styles, learning how to relate with them, and finally learning how your role contributes to their success. You generally should master technical literacy first. This is the ability to tailor the technical sophistication of your language for your audience in the time available. The next level in the communications competency hierarchy is emotional and social intelligence. This is your ability to relate with your audience by taking advantage of your emotional energy and the emotional energy of your audience for positive impact rather than becoming negative, combative, or defensive. Social intelligence, the third level is the ability to recognize the social world of your audience and re-frame your message in a context that adds value to *their* social world. In other words, "it's not about you." Lastly, the element of style flexibility that defaults to your MBTI preferences rather than adjusting your style to fit the communication preferences of your audience.

Communication Opportunities:
- Written:
  - o Resume
  - o Experience Statements
  - o Summary of Qualifications (SOQ)

- Verbal:
  - o Interview
  - o Negotiations
  - o Networking

One behavioral communication goal:

To enable an audience to **extend a willing and supportive relationship** with you resulting in any or all the following:

      participation in one or more of your networks
      selection for a job interview
      selection as a final job candidate
      provided a written job offer
      successful compensation negotiations with start date
      you are hired and still working after 18 months

SciPhD Core Communications Competencies

Audience Engagement	Communicator Competency
Our **content** is understandable within their life experiences.	Technical Literacy
We **relate** through respect and appreciation **by learning** and leveraging their emotional engagement	Emotional Intelligence
We **relate** through **shared common purpose**	Social Intelligence
Our **language style** is matched to their behavioral communications patterns	Style Flexibility

Your Technical Literacy Mastery and Communications Challenge

Technical Audiences
- Publications
- Presentations

Non-Technical audiences
- Networking
- Interviews

Special Communication Environment: Networking Interviewing, Negotiating

- Structured Communication Environments
    - Expected social roles are to be played
    - Behavioral norms are well known and followed
    - Individuals may not be their " n o r m a l   s e l f "

- SciPhD Four (4) Core Communication Competencies
    - Are always present – are not avoidable
    - All 4 competencies will be acted out
    - Four (4) Competencies are your tools, and not defaults

Technical Literacy

The most technical description of your research.

While we did not have time in this session to have each person create and share your personal Highly Technical statement, we suggest you do complete a version of your most technical explanation of your research.

Write it here:

Note the following when you listen to others give their technical presentation:
1. What is level of EASE in understanding the information?
2. What type of stress when you cannot interpret the information?
3. What emotional response did you experience concerning the person?
4. What level of trust do you place in this person?

Now prepare a description in seven (7) words or less of what you do that would be understandable by Grandma!

Write it here:

Note the following as you listen to others give their presentation:
What is level of EASE in understanding the information?
What type of stress when you cannot interpret the information?
What emotional response did you experience concerning the person?
What level of trust do you place in this person?

The KEY to Technical Literacy is:
- In the time allotted and at the audience's technical level, answer technical questions in the social context of what is important to the audience

- In short – how do you add value in the world of the audience!!!!!!!!!!!

Key Questions to ask yourself!
- Who I am I speaking with?
- What is their role?
- How do I make their job easier?
- What is the best context with which to m

Technical Literacy Range varies with the audience from:

Highly Technical <-->Highly Social
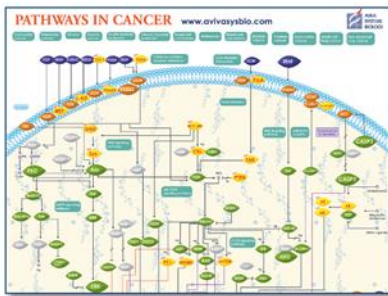
What is the social impact of your research??
Answer – write it out!!

How do you adjust your technical content to match level of understanding of your audience in the time available?

3 Phases	Hierarchy Output	Example	Your Research
Common Social Benefit	Global impact of successful research in the future	How to stay healthy	
Common Basis	General field of social benefit	Understanding how to fight cancer and infections	
	General field of study	Molecular Immunology	
Data Specific	Generalized function and target of your research	Stimulating cell mediated immunity against tumor and viral antigens	
	Your most detailed and technical presentation of data	MHC Class I antigen exogenous peptide loading and presentation of tumor antigenic peptides	

Notes:

Emotional and Social Intelligence

We are introducing the importance of communications as a *relationship tool*, going beyond communications as just the understanding of content which is the focus of most science professionals. Once you have determined the technical literacy level, the next competence is learning how to stay in a positive communication engagement with your audience. We build on our own experience of building trust and relationships in our everyday lives. We focus on staying positive in communication exchanges by learning and using Emotional and Social Intelligence techniques that will help achieve positive communication exchanges.

Communication techniques can be broken down into a content and a process focus. The content focus is interested in providing more data about the subject matter; you are communicating in the role of the "expert". The process focus is more about the nonverbal manners, verbal linguistic style, emotional context, neurolinguistics and social context of the data or science message; you are communicating in the role of a facilitator, coach, teacher, or partner. We will provide multiple communication techniques and mastering JUST ONE of these techniques can greatly improve process control and message impact. Our experience is that by providing a variety of communication techniques for you to experience, you can select and implement the technique(s) that work best for you.

The "m& 3ns" technique is all fun as of life; in situational applicat professional, and personal. One of the greatest skills scientists have is their research sophistication or learning capacity. Few other professions have such a discipline in research as scientists do and yet they seldom use these skills in their communications.

The Neurolinguistics Programing (NLP) techniques open a new world of communication process possibilities. These are techniques that are taught and used in many high-dollar or high-relationship selling situations. These are some of the most challenging communications techniques to master and we introduce them here to learn communication method.

The switching from EXPERT to LEARNER is the most powerful technique to control and limit the cognitive bias of Associative Coherence, audience has a negative experience with the presenter, the positive impact of the message is gone and even reinforces a dislike of the present inability to take responsibility for your own emotional control and failure to manage the audience's emotional relationship with the pr

Our goal is for you to become aware of and begin to explore how to manage the communication process and not just respond or react with content when communicating with others. Learn to transition and ask questions, flex style, change social roles or use pace and lead; if you manage the communication process, you will build lasting relationships of trust and respect.

We do recommend a series of exercises for those interested in building their communication skills. To that end, we also include at the end of this chapter, the 8 question Communications Diagnostic that can be used to identify which of the communications techniques presented might be most beneficial for you to learn.

Introducing Emotional Intelligence (EI)

General:

Communications is processed by our social brain with an emotional context. There is both a conscious and nonconscious emotional process as a dynamic. Daniel Goleman framed this process as Emotional Intelligence back in the

Emotional intelligence (EI) is taking responsibility for your own emotional state during communications. While we all may face situations that require a forceful defensive or offensive behavior, most of the time we are better served with an audience to stay in a positive behavioral role. And a positive behavior role is experienced when we are treated with respect and integrity, seeking understanding, as a partner on a common journey. Simply put, when we are learning about someone, we are seeking rapport and relating in an emotionally intelligent manner.

Basic References for Reading:

- Working with Emotional Intelligence– 2000 by Daniel Goleman
- Thinking, Fast and Slow– 2013 by Daniel Kahneman
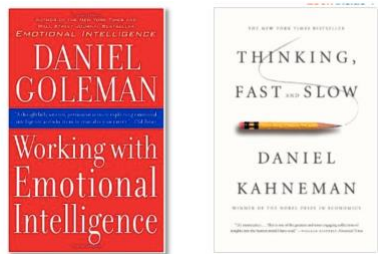
Our EI mastery techniques are intended to provide methods to transition from "automatic" emotional responses such as defensiveness, anger, fear (described by Kahnema 1" aka "Thinkiang d Faskte")control of your own en positive dynamic in communications that socially adapts the interaction to a positive state ("System 2" aka "Thinking Slow")

There are times when your emotional response in the "automatic" mode is necessary to display authenticity, your personal values, your personal commitments, and your personal beliefs. We are suggesting that mastering communications requires self-knowledge and judgment as to when you must NOT negatively respond if you want to develop a relationship and a positive state of rapport and trust with audiences. You need MORE than your EXPERT mode at this level of communications.

We will present multiple Emotional Intelligence techniques for you to attempt, learn and rehearse so that you can select those that are most natural for your personality, style and EI stage of development.

System 1 (Thinking Fast)	System 2 (Thinking Slow)
• **Fast**	• **Slow**
• **Parallel (many tasks)**	• **Serial (one task)**
• **Automatic**	• **Controlled**
• **Effortless**	• **Effortful**
• **Associative**	• **Rule Governed**
• **Slow Learning (habits)**	• **Flexible**
• **Emotional**	• **Neutral**

EXPERT TO LEARNER:

Expert	Learner
• **Focus on Self**	• **Focus on others**
• **Find mistakes**	• **Find common ground**
• **Give answers/TELL**	• **Ask questions/LEARN**
• **Reinforce expertise**	• **Reinforce relationship**
• **% time communicating?**	• **% time communicating?**
• **When stressed: gets frustrated and/or defensive**	• **When stressed: reinforces**
	• **common agreements and offers to continue conversation**

There are two (2) situations where you will want to consider switching from Expert to Learner:
1. I want or need a deeper relationship with this person or audience that I am interacting with at this very moment.
2. **I sense that I am about to go negative, get defensive, argue my point, point a finger, talk louder …. I am not in control.**

Emotional Intelligence is your being in control of your low road, fast thinking! There are times that you must shift out of your emotional reaction and go to the high road, or slow thinking. The most basic EI technique is as follows:

1. Make a conscious choice to shift to learner role, and/or

2. Identify the emotions that drive your personal defensiveness, anger, or fear. What evokes your immediate emotional response?? You must be aware of and manage your emotional communication state.

That "feeling" is your TRIGGER to …….

Take a deep breath, wait 5 seconds and take the high road!

Shift role from expert to learner, coach

"**WAIT**"- A s k   y o u r s e l f "**W**hy **A**m **I T**alking??"

The most difficult skill for an expert to perform is?

NOT _____ A QUESTION TO WHICH YOU **KNOW THE ANSWER!!**

BUT THERE IS HELP ON THE WAY!!!!

Stop being just an Expert
1. ONCE a day, do not answer a question as an EXPERT
2. Shift to being a LEARNER
3. Ask 3 open-ended questions
4. THEN answer the question

3 m&m Learning Technique

1. Place 3 M&Ms on your desk etc. and look at them!
2. Pick up and eat one M&M with your first question
3. Listen to the answer and use for question 2
4. Pick up and eat 2nd M&M
5. Repeat then answer question

EXERCISE: Use EI to respond to the following question:

"I ' m   c o n s i d e r i n g   with your PI. What do you suggest ? "

How to Stay Positive Using 3 m&ms

Make the conscious choice to:

1. Stop being an EXPERT
2. Shift to being a LEARNER
3. Ask open ended questions
4. Give answer in context of audience
    - Who I am I speaking with?
    - What is their role?
    - How do I make their job easier?
    - What is the best context with which to make my point

How do adults learn new communications competencies????

WARNING!!! This is NOT a COGNITIVE EXERCISE

- Knowing is not performing!!
- Neural patterns should be leveraged
- Neural patterns should be reinforced daily
- Neural patterns will need about 21 days to become unconsciously competent and may take more than 60 days of reinforcement

Social Intelligence

Social Intelligence takes communications to the third dimension of Shared Purpose. At this competency level, we consider the *social role* of the audience and re-frame our conversation so that the technical literacy, style flexibility and emotional intelligence response *adds value to their social role*. For example, in describing your scientific accomplishments to a marketing manager, in addition to applying technical literacy (adjusting your scientific language to the level of understanding of the marketing manager), and Emotional Intelligence (m&m question to learn about role of a marketing manager and customers), you can then respond with your accomplishments focused on what is valued by that marketing manager (customer satisfaction with possible new innovative products resulting from your research). With Social Intelligence, its "n and "making their job easier."

Definition:

- Communicating in a manner that relates to your audience's needs and interests while actively seeking a shared-purpose relationship.

In essence, social intelligence is all about answering the following 4 questions:

- Who I am I speaking with?
- What is their role?
- How do I make their job easier?
- What is the best context with which to make my point?

For example, based on the roles of company representatives interviewing you for a job shown in the left column, you might consider the primary focus in the corresponding right column as a guide to answering their questions.

Role in Company	Primary Focus
Hiring Manager	Technical Skills
Peers	Social Skills, Team Player
VP Marketing	Business and Social, Communicate Clearly
Chief Science Officer	Technical with Strategic Perspective
Human Resources (HR)	Social, Talent Potential
Project Manager	Operations, Business skills
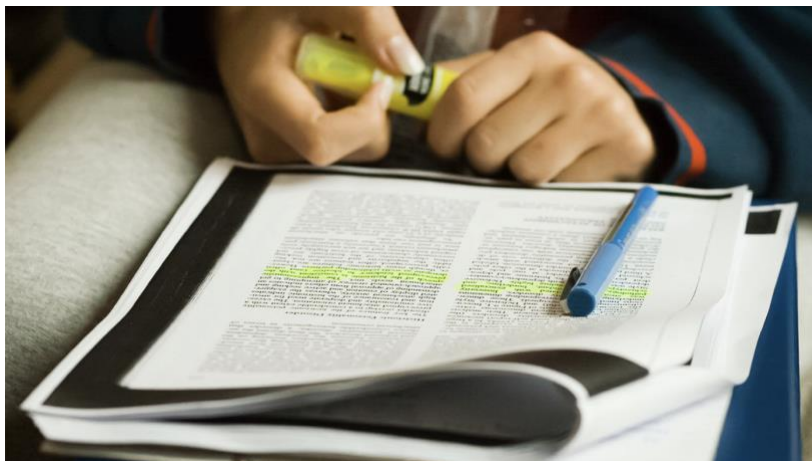
Who is the interviewer????? Use Social Intelligence!

REMEMBER SOCIAL ROLES??

Case Study: Peter Pace
- Peter Pace: 16th Chairman of the Joint Chiefs of Staff.

- Situation: Accusatory question about Abu Ghraib torture and prisoner abuse scandal!

Case Study: Cathy Lanier
- Cathy Lanier: Senior VP Security NFL. Former head DC Police Department

- Situation: Wp Conference – toughastparts of job when running DC Police Dept?

All communication has three (3) "brain" dimen

1. Words, Content, Technical knowledge, the cognition, Data, Information.

2. Affective, Emotional & Nonverbal Context, Persuasion … the fe emotive, the immediate response, passion.

3. Social meaning of 1 & 2 is based on the Social Relationship (Social Role). This adds social meaning, identity, social context, relationship, group membership, coalescence, ownership, likeness to communicatio Identity" or "Social Intelligence".

Three Social Relationship Roles

Every communication you perform – speaking, being quiet, non-verbals – needs a social context to provide meaning. You are generally perceived in one or more of the following "social roles:"

Institutional – Your message is being heard and seen as a representative of an institution. Once you are working for a corporation, the entire history and legacy of that institution now frames your communications. Sometimes this is favorable and sometimes it can be very destructive. List the organizations with which you have been socially associated:

Professional – Your message is being heard and seen within the context of your profession. "Forget my employer, I am here to talk... List the professions you have developed at some level of competence:

Personal – Your message is being heard and seen as another human being; a parent, a community resident, a citizen etc. ... "Forget... here today to share my personal story about canc... you have had as yourself and/or with your family:

The social role is assigned by your audience. It is normally done at a nonconscious brain level. Start to analyze the social roles you assign to speakers in different communication situations.

When are you as a scientist representing your institution, your profession, or yourself???

Communications Goals:
- Demonstrate your Technical Literacy with 2 very different audiences
- Practice emotional intelligence technique to stay positive by learning
- Rehearse your 3 social intelligence roles
- Answer a challenging question so you are SAFE and learning
- Practice building value in your communications that match Style and "Interest" ... your audience

Remember: You are always safe answering a question in your personal experience range: "Let me answer that question based on what... *your experience has been very different and perhaps* we can learn from each o...

Breakout Session: Interview #1 - Social Roles

In this exercise, your goal is to utilize your three Social Relationship Roles (Institutional, Professional, Personal) to best answer the question below. Try and move back and forth between your three identities/roles. This exercise is usually a major stretch for new scientist since they have mostly academic institutional roles, "ex professional roles and, limited opportunity to express personal values and supported causes or personal medical experiences. Please consider this exercise to be an opportunity to explore your own willingness to deploy all three social roles and under what social conditions.

3 per room: Work tog-enterning combans youro experien/ces to qreater perso one answer

- Using social intelligence, answers question, attempting to move between 3 roles (organizational, professional, and personal
- Record social roles observed and SciPhD social competencies referenced on the Social Roles Scoring Form below

Interview Question:

"We are recruiting for the type of "Associat *company, be the best scientist they can be, and have a personal commitment to respect every* "Associate," consumer, supplier Please give me estor an examples from your past when you exhibited t

Social Roles Scoring Form

Observer uses this form to indicate which SciPhD Core Competencies were implied (check boxes as they are mentioned) and also identify which social roles the candidate utilizes during the interview. Record contact information for the candidate and share the completed form with them.

Candidate:	Contact info:
Creating The Vision	**Achieving Results**
Strategic	**Production**
Innovative	**Focus**
Risk Management	**Competition**
Champion/Energy	
Developing People	**Communications**
Collaboration	**Technical Literacy**
Enabling	**Style Flexibility**
Empathy	**Emotional Intelligence**
Rapport	**Social Intelligence**
Execution	**Financial Acumen**
Structuring	**Return on Investment**
Control	**Internal Rate of Return**
Tactical	**Performance Metrics**
Delegation	**Balance Sheet**

Social Roles Used		
Institutional	Professional	Personal

Notes:

Style Flexibility

Once we have the appropriate level of technical literacy determined, is there just one right way to communicate our message? NOT REALLY! What if the audience is not very talkative, or just will not stop talking? Suppose they are most comfortable with analytical methods and decisions. What if your audience is a mix of patients who are hopeful for a cure? All these scenarios can happen, and the audience is giving you cues all the time on their preferred style of relating! An effective communicator picks up on these cues and adjusts their communication style accordingly.

Just as you have a preferred way of writing your name, you have a preferred Style of communicating. SciPhD has assembled a 3 Part Style Flexibility model that is based on Carl Jung's Theory, which focuses on four basic psychological functions. Each function is composed of opposite behavioral patterns AND we use all of the resulting eight functional behavioral patterns in our communications. While you develop preferences of behavior, just like writing your name with the other hand, you can learn to execute any of the eight behaviors (Style Flexibility) to accomplish your communication purpose.

Write your name

_____

Write your name again (listen to instructions first):

_____

The three Style Flexibility Behavioral Communications Patterns

1. We are either talking or listening
2. We are either learning about the world or making decisions about the world.
3. When we interact with others, we either relate what we learn or our decisions.

In each of the tables below, each of the three Style Flexibility Patterns opposite extremes are described: the **positive** contribution to communications, what you as the communicator must be **on guard** for with respect to the resulting danger of over-reliance on one behavior and the **techniques** to use in Style Flexibility. The last table in this section provides the opportunity to self-rate your own ability to use these individual patterns in your communications.

1. We are either talking (E) or Listening (i).

When interacting with others, we prefer developing our ideas, concerns, information, decisions and needs by "talking first" collecting the necessary information "sharing" with our audience.

How will you engage with your audience?	Extrovert Behaviors (E):	Introvert Behaviors (I):
	The positive: Initiate conversations High verbal skills Enthusiastic – like being champion Active	**The positive:** Reserved - think before speaking High written skills Quiet Reflective
	On Guard: Launch into rehearsed answers Talk fast, no space for questions	**On Guard:** Long wait time before answer 3-word answers
	Technique: Start answer – 20 sec – ask question – start 2nd answer	**Technique:** Ask question – start answer – check status

Conclusion: Style Flexibility in the E/I preference is about controlling your preference enough so as to build value in your communications by matching the preference of your audience. Recognize that communication situations such as interviewing, networking and negotiations will require using both preferences at the right time.

2. We are either learning about the world

When I am learning about the world, I have a preference to perceive specific info or interpret and find meaning in the information.

What are perceiving behaviors? I pay attention to …	Sensing Behaviors (S):	iNtuitive Behaviors (N):
	The positive: Relevant Facts - Tangible Experiential – Trust Experience Realistic – Pragmatic, Applied Traditional – Tried-and-true	**The positive:** Abstract – Symbolic, Intangible Theoretical – Trust Theories Conceptual – Scholarly Original – New, Unusual
	On Guard: Not committed to new approaches Facts are the truth	**On Guard:** Not committed to proven ways There is always a better way
	Match Technique: Tell me about the data set that most supported your research. (Asked by your future boss – Hiring Manager)	**Match Technique:** Tell me about the implications of your research? (Asked by the Chief Science Officer)

Conclusion: Style Flexibility in the perceiving preference is about matching the data need of the audience. Can I flex my preference to communicate in my non-preference?

2. _____ a preference to make judgments either logically or subjectively concerning the information I have perceived.

What are decision making behaviors? I base my decisions on …	Thinking Behaviors (T):	Feeling Behaviors (F):
	The positive: Logical – Impersonal, objective Questioning – Challenging Reasoned – Cause and Effect Critical – Want proof, Critique	**The positive:** Values Rule – Equity, Empathetic Accommodation – Want harmony Tactful – Loyal, Compassionate Accepting – Trusting, Give praise
	On Guard: Find something wrong End justifies means People support systems	**On Guard:** Trust until proven wrong Loyalty preempts reason Systems support people
	Match Technique: Tell me about the last time you had to let someone know that their scientific conclusion is wrong? (Asked by Human Resources Training Director)	**Match Technique:** Tell me about the last time you saved a co-worker from being disciplined. (Asked by Human Resources Training Director)

Conclusion: Style Flexibility in the perceiving preference is about matching the decision need of the audience. we structure our science using "T" b social impact of science in the "F" behavior, Can I flex my preference to communicate in my non-preference?

3. When we interact with others, we either relate what we learn (P) or we relate our decisions as to what we are going to do (J).
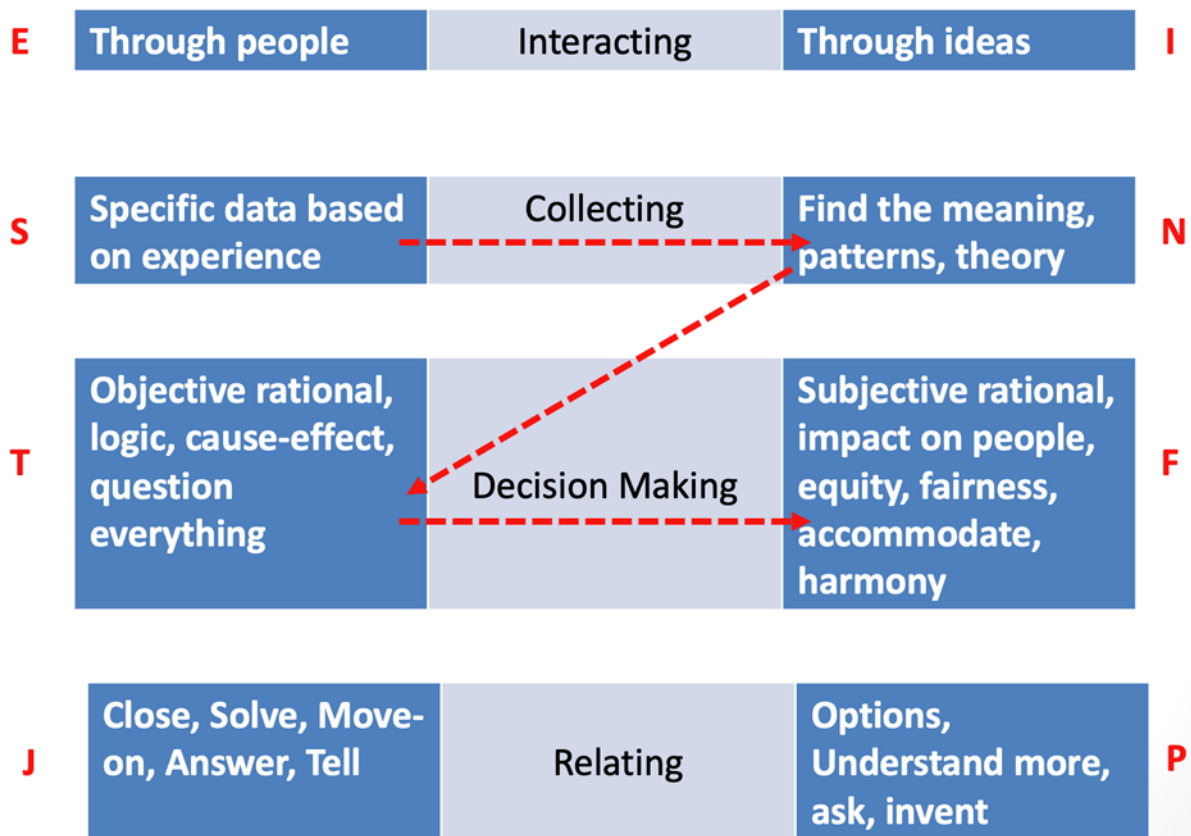
This third preference set can be the most difficult opposing set of communication preferences to switch. Reason: Relating is what we spend a lot of time doing which means we reinforce our neural patterns in the direction of our preference.

How will you relate both your perceiving and decision making in your communications?	Judging Behaviors (J): ("doing")	Perceiving Behaviors (P): ("learning")
	The positive: Decisiveness – Get closure Planful – Mitigate risk, firm plans Self-discipline – steady progress Systematic – Structure, Orderly	**The positive:** Due Process – consider options Open-ended – go with flow, flexible Pressure-prompted – last minute burst Emergent – adaptable, spontaneous
	On Guard: Rejects work if impacts schedule Getting done overrides quality	**On Guard:** Schedules and plans are guides Options are never too late
	Match Technique:	**Match Technique:**

Conclusion: As a "J" preference communicator, can new data, consider a different context to a problem, share your data that is the basis for your decision making? As a "P" preference co confidence, decide which alternative is best, finish a project now, give your personal solution to a problem and support the decision of others?? Can I flex my preference to communicate in my non-preference?

Are you using all your Style Flexibility?

Imagine you are interviewing for a job and the interviewer asks the question "Why should we hire you? You can see in the diagram below how yo Journey" in addressing their concern should Go ah hire you" using all the Can you flex your preference to of S, N T communicate in your non-preference?

E	Through people	Interacting	Through ideas	I

S	Specific data based on experience	Collecting	Find the meaning, patterns, theory	N

T	Objective rational, logic, cause-effect, question everything	Decision Making	Subjective rational, impact on people, equity, fairness, accommodate, harmony	F

J	Close, Solve, Move-on, Answer, Tell	Relating	Options, Understand more, ask, invent	P

Style Flexibility Competency Plan

This table of the 8 preferences is provided to help you rate your capacity to use all your communication preferences in relating to others as you pursue your job first career job. The purpose of the rating is to help you during the Emotional and Social Intelligence sessions to experience how the EI and SI techniques will assist in your mastering Style Flexibility preferences. You will find that both EI and SI techniques to be successfully implemented require you to deploy all 8 preferences.

Communication Behavior	My Skill Level 1-Low 5-High	Notes
Extraversion		
Introversion		
Sensing		
iNtuition		
Thinking		
Feeling		
Judging		
Perceiving		

Interview Preparation

Lesson Objectives:

1. Demonstrate that you have a lot more SciPhD Core Business Competencies than you may realize, and
2. Learn to be socially intelligent in framing answers to questions so that they are relevant to the interview's role.

Be Prepared for 2 Types of Questions:

Theoretical	Behavioral Based
Looking for "right solving ability, t	Predicting your behavior in the future based on your past

Behavioral Based Responses: STAR

S- What was the **Situation**

T- What was the goal or **Task** to be completed

A- What **Actions** did YOU perform in this situation to accomplish your task?

R- What were the **Results**, lessons learned etc.

S.T.A.R. Example

Situation	Cancer research program and budget was based on in vitro experiments. Results indicated animal experiments would be very beneficial, but there was no budget to support the work.
Task	Obtain necessary funding to support animal experiments for cancer research project.
Action	Developed business plan that included anticipated publications, and impact on the scientific area.
Result	Lab Chief obtained funding to support the work.

Using Social Intelligence in Your Interview

Who will Interview Me?

- Most companies will provide you an interview itinerary of the company position.
- You can expect last-minute changes.
- Interviews typically last 30 to 60 minutes.
- They may inform you of additional requirements such as presentations, problem-solving exercises or group assessments.
- Remember!!! There is no "down time" or "off time". You are under 100% evaluation.

Role in Company	Primary Focus
Hiring Manager	Technical Skills
Peers	Social Skills
VP Marketing	Business and Social
Chief Science Officer	Technical with Strategic Perspective
HR	Social
Project Manager	Operations, Business skills

In applying Social Intelligence, always consider:

- Who I am I speaking with?
- What is their role?
- How do I make their job easier?
- What is the best context with which to make my point?

.

Interview 2

Instructions: You will be in groups of 6 per room.
1. Questions are specific per room number (see table below)
2. ID someone in the group with a relevant experience
3. Re-frame the experience in STAR format
4. Construct response
    1. 30 seconds
    2. Socially intelligent
    3. Use STAR
    4. Apply technical literacy

Room	Question	Interviewer Role
1-4	Tell me about a time when you made a change to improve the productivity of your lab.	Even- Project Manager Odd- Chief Science Officer
5-8	Tell me about a time when you had to handle a fellow researcher who was difficult to work with and what was the outcome?	Even- Human Resources Odd- Peers
9-12	Why should we hire you?	Even- Hiring Manager Odd- VP Marketing

Interview 3 - Breakout room 2 per room (Interviewer and Candidate)

Q1: Tell me about yourself (interviewer is the division head)

Now switch roles

Q2: Tell me about the most your formal education thing yo
(interviewer is representative from Public Relations)

Communications Diagnostics

What is your capacity to achieve this level of science communications???

Use the 8-question profiler provided online and the answer sheet provided in class.

You can also construct a personal communication development plan based on your 8 question results. Please see the instructors for further details.

8 Question Communications Diagnostic

There are no correct responses to these eight questions. The questions are designed to help develop your ability to communicate effectively with audiences that may range from very supportive to hostile. Socially intelligent communication refers to your range of adaptability in communicating within a wide variety of social situations and social objectives. Please use the following scale in your ratings:

Low =   1 Not a consideration or good fit – does not describe my communications style.
         2 Slight fit that I have considered but not routine – slightly describes my communications style.
         3 Somewhat fits as I can perform with effort – somewhat describes my communications style.
         4 Fits fairly well as I am competent at this – This describes my communications style fairly well.
High =   5 Excellent fit as I use daily – This is an excellent description of my communications style.

<u>Rate your adaptability</u> based on your experience with each communications situation using the above 1 to 5 scale.

____1. I can argue any of three sides (for, against or need more research) on topics in my field with no more than 5 minutes preparation.   (1 - 5)

____2. I am able to influence others without referring to my credentials, training, education or organizational position. (1 - 5)

____3. I am able to manage my frustration level and the need to defend my position when others fail to understand my message. (1 - 5)

____4. I can control my emotions when I am challenged by other individuals, even when they are emotional in their challenge. (1- 5)

____5. I am able to withhold judging the motives of others. (1 – 5)

____6. I am able to explain my professional work to an audience that has little or no experience in my field. (1- 5)

____7. I believe the professional category of work I do has obviously inherent social value. (1 – 5)

____8. I believe my profession will make a positive contribution to humankind within my lifetime. (1 – 5)

_____ Total Profile Score

Your 8Q Profile:

- Overall score _____
- Lowest score question (s) # _____
- Highest score question (s) # _____

Results

- 1st order 8-16 points – Heavy reliance on EXPERT and Content Roles. Tend to stay in organizational and professional roles. Getting defensive is normal.
- 2nd order 17-32 points –Varying quality of style flexibility and emotional intelligence insights and techniques. You can accomplish basic selling and persuasion communication task.
- 3rd order 33-40 – Varying quality of social intelligence mastery with insights and techniques that build toward shared ownership. Candidate for nonadvocacy technique in science communications.

3 m&m Technique Matrix
*indicates m&m strength

Individual Communication Development Plan
- Indicates strength of 3 m&m exercise on developing that skill

Question	Ask 3 Questions	Shift Social Role	Style Flexibility
1	***		
2	***	***	**
3	***	***	**
4	***	**	**
5	***	***	*
6	***	***	**
7	***	***	**
8	***	***	***

Appendix: Communications reference materials

Communication Competency Hierarchy Outcomes

We are also adding the expected audience behavioral communication outcome for each competency level and introducing the language of cognitive neuroscience as referenced in Daniel Kahneman's book "Thinking, Fast and Slow" processed by the biased brain: our audience. Note how the various competency levels work together: first achieve technical understanding within the experience base of the audience. Then, use the preferred language style in data acquisition, decision making and relating outcomes while maintaining positive emotive coherence, and then close with a resulting neural coupling by adding value to the world of your audience.

Communication Competency Hierarchy

Communication Competency	Audience Behavioral Communication Outcomes	Neuroscience Bias Leverage (Kahneman)
Technical Literacy	Understand within experience base	Fluency
Emotional Intelligence	Stay Positive	Associative Coherence
Social Intelligence	Add value to their world	Neural Coupling
Style Flexibility	Preferred language base of perception, judgment and relating	Cognitive Ease

Definitions:

Fluency – the ease with which one learns new information (content) by building on past experiences results in new information firmly anchored, highly valued and enhanced trust of the information source.

Cognitive Ease – the communication process of language, perception, judgment, relating, and its easiness or familiarity as opposed to a cognitive strained process.

Associative Coherence – the perception of intentional causality and emotional attributions based on our automatic search for causality. A coherent story is instantly constructed as you experience cognitive strain.

Neural Coupling - neural patterns in listeners mirror those of the speaker. A key to communication is the act of transmitting internal brain states — or, at least, evoking in a listener the same brain state as a speaker.

SciPhD Style Flexibility and MBTI

The MBTI® instrument was developed by Isabel Myers and Katharine Briggs as an application of Carl Jung's theory of psychol

This theory suggests that we have opposite ways of:
- Gaining energy (Extraversion or Introversion)
- Gathering or becoming aware of information (Sensing or iNtuition)
- Deciding or coming to a conclusion about that information (Thinking or Feeling)
- Dealing with the world around us (Judging or Perceiving)

The MBTI Self-Assessment uses a series of questions to determine your preferred behaviors with respect to Introversion and Extroversion (E/I), Sensing and Intuition (S/N), Thinking and Feeling (T/F), and Judging and Perceiving (J/P). The assessment assigns one of 16 possible combinations of these pairs of letters as well as the strength of those assignments. Thus, individuals are described as "ESFP" or

The SciPhD approach to MBTI is the recognition that your life experiences have influenced your own communications style such that you have a default set of communication styles that is your have also experienced more effective communications with certain individuals by using portions of some of the other styles that are not style. This is style flexibility. You will need these same communications skills when you are networking, job searching, interviewing and joining a new work team. MBTI describes a total of 16 differ you want to master communication flexibility, you should be able to communicate in any one of them. In senior executive coaching we often include taking the MBTI instrument once a day until the executive can answer the indicator questions as any one of the 16 types– without errors!! After all, "If you cannot t *another MBTI preference, what makes you think/feel that you can effectively communicate* with individuals who have those preferences??

Action	Style range		
Process information	**E**xtrovert	⟷	**I**ntrovert
Perceive information	**S**ensing/Detail	⟷	i**N**tuitive/Meaning
Judging information	**T**hinking/Logic	⟷	**F**eeling/Empathy
Relating information	**J**udging/Close	⟷	**P**erceiving/Open

MBTI Descriptions of Style Extremes

Extraversion and Introversion

We will begin with how you get your energy in the world around you: Extravert or Introvert?

Attitudes: Extraversion/Introversion (E/I)
MBTI literature uses the terms *extraversion* and *introversion* as Jung first used them. Extraversion means "outward-turning" and introversion means "inward-turning". These specific definitions vary somewhat from the popular usage of the words.

The preferences for extraversion and introversion are often called "attitudes". Briggs and Myers recognized that each of the cognitive functions can operate in the external world of behavior, action, people, and things ("extraverted attitude") or the internal world of ideas and reflection ("introverted attitude"). The MBTI assessment sorts for an overall preference for one or the other.

People who prefer extraversion draw energy from social action: they tend to act, then reflect, then act further. If they are inactive, their motivation tends to decline. To rebuild their energy, extraverts need breaks from time spent in reflection. Conversely, those who prefer introversion "expend" energy through action: they prefer to reflect, then act, then reflect again. To rebuild their energy, introverts need quiet time alone, away from activity.

If you prefer (E) Extraversion, you focus on the outside world to get energy through interacting with people and/or doing things.
- **INITIATING -** Sociable, congenial, introduce people
- **EXPRESSIVE -** Demonstrative, easier to know, self-revealing
- **GREGARIOUS -** Seek popularity, broad circle, join groups
- **ACTIVE -** Interactive, want contact, listen and speak, non-verbals abound
- **ENTHUSIASTIC -** Lively, energetic, seek spotlight, like being champion

If you prefer (I) INTROVERSION, you focus on directing energy toward the inner world of experience and ideas.
- **RECEIVING -** Reserved, low-key, are introduced
- **CONTAINED -** Controlled, harder to know, private
- **INTIMATE -** Seek intimacy, one-on-one, find individuals
- **REFLECTIVE -** Onlooker, prefer space, read and write
- **QUIET -** Calm, enjoy solitude, seek background

Sensing and Intuition-
Your second letter is how new information is understood and interpreted.

<u>Sensing and iNtuition (S/N)</u>
Sensing and *intuition* are the information-gathering (perceiving) functions. They describe how new information is understood and interpreted. Individuals who prefer *sensing* are more likely to trust information that is in the present, tangible, and concrete: that is, information that can be understood by the five senses. They tend to distrust hunches, which seem to come "out of nowhere". They prefer to look for details and facts. For them, the meaning is in the data. On the other hand, those who prefer *intuition* tend to trust information that is more abstract or theoretical, that can be associated with other information (either remembered or discovered by seeking a wider context or pattern). They may be more interested in future possibilities. For them, the meaning is in the underlying theory and principles that are manifested in the data.

If you prefer (S) SENSING, you focus on what can be perceived by the five senses**.**
   • **CONCRETE -** Exact facts, literal, tangible
   • **REALISTIC -** Sensible, matter-of-fact, seek efficiency
   • **PRACTICAL -** Pragmatic, results oriented, applied
   • **EXPERIENTIAL -** Hands-on, empirical, trust experience
   • **TRADITIONAL -** Conventional, customary, tried-and-true

If you prefer (N) INTUITION, you focus on perceiving patterns and interrelationships.
   • **ABSTRACT -** Figurative, symbolic, intangible
   • **IMAGINATIVE -** Resourceful, inventive, seek novelty
   • **CONCEPTUAL -** Scholarly, idea-oriented, intellectual
   • **THEORETICAL -** Seek patterns, hypothetical, trust theories
   • **ORIGINAL -** Unconventional, different, new and unusual

Thinking and Feeling-

Your third letter is how decisions are made using thinking and feeling functions, both used to make rational decisions, based on the data received from your information-gathering functions (sensing or intuition).

Thinking and Feeling (T/F)

Thinking and feeling are the decision-making (judging) functions. The thinking and feeling functions are both used to make rational decisions, based on the data received from your information-gathering functions (sensing or intuition). Those who prefer thinking tend to decide things from a more detached standpoint, measuring the decision by what seems reasonable, logical, causal, consistent, and matching a given set of rules. Those who prefer feeling tend to come to decisions by associating or empathizing with the situation, looking at it 'from the inside' and weighing the situation to achieve, on balance, the greatest harmony, consensus and fit, considering the needs of the people involved. "Thinkers" usually have trouble interacting with people who are inconsistent or illogical, and tend to give very direct feedback to others. They are concerned with the truth and view it as more important than the social context of harmony. As noted already, people who prefer thinking do not necessarily, in the everyday sense, "think better" than their "feeling" counterparts; the opposite preference is considered an equally rational way of coming to decisions (and, in any case, the MBTI assessment is a measure of preference, not ability). Similarly, those who prefer feeling do not necessarily have "better" emotional reactions than their thinking counterparts.

If you prefer (T) THINKING, you are basing conclusions on logical analysis with a focus on objectivity.
- **LOGICAL -** Impersonal, seek impartiality, objective analysis
- **REASONABLE -** Truthful, cause-and-effect, apply principles
- **QUESTIONING -** Precise, challenging, want discussion
- **CRITICAL -** Skeptical, want proof, critique
- **TOUGH -** Firm, tough-minded, ends-oriented

If you prefer (F) FEELING, you are basing conclusions on personal or social values with a focus on harmony.
- **EMPATHETIC -** Personal, seek understanding, central values
- **COMPASSIONATE -** Tactful, sympathetic, loyal
- **ACCOMMODATING -** Approving, agreeable, want harmony
- **ACCEPTING -** Tolerant, trusting, give praise
- **TENDER -** Gentle, tender-hearted, means-oriented

Judging and Perceiving- Which Behavior You Share with Others

Your fourth and last letter indicates your preference for either the (J) Judging function (thinking or feeling) or the (P) Perceiving function (sensing or intuition) when relating to the outside world (extraversion). In other words, are you more comfortable, and do you get your energy by taking in information (P) or acting on the information you have (J).

Judging and Perceiving (J/P)

Myers and Briggs added another dimension to Jung's typological model by identifying that people also have a preference for using either the judging function (thinking or feeling) or their perceiving function (sensing or intuition) when relating to the outside world (extraversion). Myers and Briggs held that types with a preference for Judging show the world their preferred Judging function (Thinking or Feeling). Thus, TJ types tend to appear to the world as logical, and FJ types as empathetic. According to Myers, Judging types like to "have matters settled."

Those types who prefer perception show the world their preferred Perceiving function (Sensing or iNtuition). Thus, SP types tend to appear to the world as concrete and NP types as abstract. According to Myers, Perceptive types prefer to "keep decisions open."

If you prefer (J) JUDGING, you are preferring decisiveness and closure.

- **SYSTEMATIC -** Orderly, structured, dislike diversions

- **PLANFUL -** Future-focused, advance planner, like firm plans

- **EARLY STARTING -** Motivated by self-discipline, steady progress, late start stressful

- **SCHEDULED -** Want routine, make lists, procedures help

- **METHODICAL -** Plan specific tasks, note subtasks, organized

If you prefer (P) PERCEIVING, you are preferring flexibility and spontaneity.

- **CASUAL -** Relaxed, easygoing, welcome diversions

- **OPEN-ENDED -** Present-focused, go with the flow, make flexible plans

- **PRESSURE-PROMPTED -** Motivated by pressure, bursts and spurts, early start unstimulating

- **SPONTANEOUS -** Want variety, enjoy the unexpected, procedures hinder

- **EMERGENT -** Plunge in, let strategies emerge, adaptable

Circle your self-selected MBTI preference.

ISTJ 11 to 14% INSPECTOR	**ISFJ** 9 to 14% PROTECTOR	**INFJ** 1 to 3% COUNSELOR	**INTJ** 2 to 4% MASTERMIND
ISTP 4 to 6% CRAFTER	**ISFP** 5 to 9% COMPOSER	**INFP** 4 to 5% HEALER	**INTP** 3 to 5% ARCHITECT
ESTP 4 to 5% PROMOTER	**ESFP** 4 to 9% PERFORMER	**ENFP** 6 to 8% CHAMPION	**ENTP** 2 to 5% INVENTOR
ESTJ 8 to 12% SUPERVISOR	**ESFJ** 9 to 13% PROVIDER	**ENFJ** 2 to 5% TEACHER	**ENTJ** 2 to 5% FIELD MARSHAL

Now go online and complete the MBTI.

Go to www.humanmetrics.com and follow the online directions.

YOUR MBTI RESULTS:
- What seems/feels right?
- What seems /feels confusing or doubtful?

NOW PICK AN MBTI PROFILE THAT HAS TWO PREFERENCES THAT ARE DIFFERENT THAN YOUR OWN, AND RETAKE THE MBTI INSTRUMENT AND ANSWER THE QUESTIONS AS THAT NEW PROFILE.

For example, if you are an ISTJ, try taking the MBTI instrument as an INFJ.

GOOD LUCK!!!! You have mastered Style Flexibility when you can take the MBTI instrument and come up as any one of the selected 16 preferences with no errors.

Phone Interviews   Note: This material supplements the classroom presentation.

Phone interviews are typically for:
- HR validation that you are real
- Clarification of resume data
- Providing instructions for additional Job Applicant requirements
- Coordinating on-site interviews

New Trends in Remote Interviewing include:
- Skype or other "video meeting" platforms
- Conference calls (being interviewed by a group via teleconference)

Rules for Phone Interviews
- Don't dominate conversation
- Pause and ask questions
- Keep answers short (10 seconds)
- Be prepared
- Have job ad on hand
- Prepare questions to ask
- Have intelligence on company and individuals
- Quiet background
- If taking notes, do so quietly (silent keyboard, or write quietly)
- At end of interview, ask about "next steps
- Send "thank you" e mail

Rules for On-site Interviews

1) <u>Be Yourself</u> – you have already set expectations with your resume, possible phone interviews, social media …
   a) Authenticity is critical! Any doubt about your character will delay consideration.
   b) Show you want this job – a little passion please!
   c) You Can DO this job – and more …

2) <u>Be Respectful</u> –
   a) Assume every interview candidate can do the science – what do you add of value?
   b) Build rapport
   c) Assume you are starting to build your internal Network
   d) Learn about the company – " I did some research on the cor about how you are leveraging your successful work in …"
   e) Compliment with sincerity!

3) <u>Be Prepared</u> – You may have to:
   a) Complete assessments
   b) Participate in team exercises
   c) Complete a Group Interview
   d) Complete Individual Interviews
   e) P a r t i c i p a t e   i n   a   s o c i a l   a c t i v i t y   (l u n c h   w i

First Impressions are Exactly That!

- Good posture
- Dress professionally
- Bring copies of your resume
- Make eye contact
- Firm handshake
- Exchange business cards
- Listen!!
- Be prepared to ask questions
- D o n ' t   i n t e r r u p t   o r   f i n i s h   o t h e r s '   s e n t e n c e
- Remember- I t NOT' S about YOU

Interviewing Protocol

- Never Interrupt
- Pause and think before answering each question
- S w i t c h   f r o m   " e x p e r t "   t o   " l e a r n e r "
- Listen more than you talk
- Engage your interviewers
- Eye contact
- Body position

Questionable Questions

- Are you married?

- Do you have children?

- Does your spouse work?

- Are you a U.S. citizen?

- Have you ever used drugs?

- Please sign in to your Facebook account

Use emotional intelligence and answer the *intent* of the question. For example, if asked if you have children, or are planning on having children (which is not a question that can be asked under federal law in the US), you might respond with "I'm not really co *talking about my personal life, but if you are asking if I have any concerns regarding my ability* to do the work, based on our conversation I d all the job requirements."

Summary

- Find a job that excites you

- Identify the technical, business and social skills

- Develop targeted resume

- Build your network

    - Capacity networking

    - Targeted networking

- Use your network to get your resume on the

- Back up your claims at your interview

- Use the interview to begin relationships

- Don't Your Job Opportunity!