Professional Development Webinars for Educators
Summer 2020
Gigi Wolf

Gigi is a Senior Economic Education Specialist for the Federal Reserve Bank of Kansas City where she develops curriculum, facilitates professional development for educators, builds partnerships with like-minded organizations, manages content for the national Federal Reserve education website and coordinates educational programs for teachers, students and the public.
Opportunity to Earn Graduate Credit

Emporia State University (ESU) is offering graduate credit opportunities with relevant and engaging extended learning.

Access a schedule of events and how to participate through Google Classroom: https://bit.ly/37n43Pi

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Matt Motsick

Matt is the Co-Founder and CEO of RPA Labs, a full-service solution in robotic process automation to the logistics and supply chain industry.

At the helm of RPA Labs, Matt and his co-founder, Suraj Menon, lead a team that focuses on automating logistics interactions of Conversations, Documents, and Workflows using a combination of robotic process automation, machine learning, natural language processing, and artificial intelligence. The software bots help companies scale by eliminating manual, repetitive tasks resulting in a better experience for employees and customers.
Dr. Ryan Flurry

Ryan serves as the principal of career education for the Shawnee Mission School District, overseeing 16 career pathways offered at 13 sites. He previously served as a high school associate principal, overseeing curriculum, instruction, and assessment.
Ryan currently serves as President and CEO of the KC Tech Council, an industry association and regional advocate for Kansas City's tech industry. He represents KC's tech industry internationally as the Vice-Chair of the Board of Directors and Chair of the US Public Policy committee for the Technology Councils of North America (TECNA). At a state level, he serves as a co-founder of the Missouri Hyperloop Coalition, and locally as an advisory board member for the Blue Valley Center for Advanced Professional Studies (CAPS).
Matt Motsick

Federal Reserve Bank of Kansas City
Software Bots and Automation in the Workplace: Understand the Future of Work
Companies are facing increased pressure to:

- Become digital and move faster
- Commit less mistakes
- Offer a better experience for the customer
- Grow the business with higher margins

Customers are becoming:

- MORE DIGITAL
- DEMANDING!

Employees face daily tasks that are:

- Repetitive
- Mundane
- Boring
What is RPA?

According to a recent McKinsey Global Institute report, ~50% of current work activities are automatable by adapting current automation technologies.

- Combination of technologies enable software bots to read documents or language texts, perform scripts, input data into web interfaces.
- Automates back office and operations daily tasks to free up people for more strategic, human interactions using Artificial Intelligence.
- Brings AI to Conversation – instant customer interaction, reduces wait time.
RPA: A Growing Industry

Many experts predict that Robotic Process Automation (RPA) will experience enormous growth across multiple industries in the coming years.

2017: $358M
2025: $3.11B

Source: Grand View Research
Robotic Process Automation is HOT

$1B
UI Path raised $1B in funding

Blue Prism, Automation Anywhere are skyrocketing

2030
Companies have a huge ROI employing RPA. By 2030, 400M to 800M jobs could be automated (McKinsey)
Who Uses RPA

Companies
- Insurance
- Bank/Finance
- E-Commerce
- Service
- Trade

Departments
- Customer Service
- Data Entry
- Operations
- Accounting
Benefits of Robotic Process Automation (RPA)

The most recent Deloitte Global RPA survey included these key findings about how companies are adopting RPA:

- **53%** of respondents have started their RPA journey; a percentage expected to increase to **72%** in two years.

  - **Currently**: 53%
  - **By 2021**: 72%

- **12 Months**
  - Payback from RPA was reported in less than **12 months**.

- **20%**
  - with robots performing an average of **20%** of the work of full-time employees.

Most respondents said RPA has led to:

- **92%** improved compliance
- **90%** greater accuracy
- **84%** more productivity
- **59%** cost reduction
Myths about RPA

Robotic Process Automation uses a Robot
Robotic Process Automation (RPA)

DOCUMENT

CONVERSATION

WORKFLOW

TRACKING

CUSTOMS

PROCESS AUTOMATION
RPA Common Use Cases

**Documents**
- Excel/PDF to System migration
- Capturing metadata from documents and populating into systems
- Data cleansing - Verify the master data is correct with cross reference database
- Reading emails - Categorizing documents from email attachments
- Invoice matching

**Conversation**
- FB Messenger bot responder
- Live chatbot on company website - responds <10 sec
- WhatsApp bot responder
- Schedule appointments
- Provide last mile status updates - text bot to driver
- Employ logic within the bot responder

**Workflow**
- Automated process to email 3 companies for price
- Remind parties to submit documents
- Escalate to Manager if time has exceeded
- Utilize predictive analytics to recommend certain products that customers may buy
Benefits

**Customers**
- Gets products faster
- More consistency
- Less errors
- Better experience
- Build loyalty

**Employees**
- More valued using skills, empathy
- Make better strategic decisions
- Less repetitive functions

**Company**
- More consistency
- SCALE the business
- Increase productivity
- Additional revenue because of quick response times
Technologies to consider teaching:

Python
TensorFlow - Machine Learning
Amazon Textract
Google Dialogue

Front End:
Angular
React
Dr. Ryan Flurry

Federal Reserve Bank of Kansas City
The Future of STEM Education in the KC Metro
STEM Education - Our Future

- STEM Education Long-Term Goals
  - The “Why” Behind it All – Post-Secondary College Success
  - Value-Added High School Diplomas
  - Engage Families in data-driven educational and career decision-making
  - Community Collaboration with K-12 partners
  - Perkins V Comprehensive Local Needs Assessment
  - Develop and Revise STEM/CTE Curriculum based on market trends
  - Teacher Recruitment and Development
The “Why” Behind it All – Post-Secondary College Success
Research indicates that students will be successful in college and/or the workplace if they have:

**Must have this:**
A GPA of at least 2.8 out of 4.0

**Plus- must have one of the following:**
- Advanced Placement Exam (3+)
- Advanced Placement Course (A, B or C)
- Dual Credit College English and/or Math (A, B or C)
- Algebra II (A, B or C)
- International Baccalaureate Exam (4+)
Career-Ready Indicators of Success

Students are **Career Ready** if they have identified a career interest and meet two of the behavioral and experiential benchmarks listed below.

- 90% Attendance
- 25 hours of Community Service
- Workplace Learning Experience
- Industry Credential
- Dual Credit Career Pathway Course
- Two or more organized Co-Curricular activities
Multiple Pathways are Necessary

- Only half of all jobs requiring a postsecondary credential require a four-year degree.
- The majority of high school graduates in Kansas and Missouri do not complete at least one year of college.
- Degree options, non-degree credentials, licenses, and guidance should be available for all students.
KC Regional Real-World Learning Initiatives

- Comprehensive PreK-12 career exploration around connected to students’ interests and aptitudes
- Parent, student, and teacher understanding of regional workforce needs and pathways to enter those fields
- Review of graduation requirements and courses offered
- Review methods of awarding high school credit to include expansion of competency-based credit over seat time-based credit
KC Regional Real-World Learning Initiatives

Students earning Market Value Assets along with their high school diploma:

- Expansions of **college credit opportunities**
- Expansion of **work-based learning experiences** (internships and client projects)
- Embedded **regionally-vetted industry credentials** into courses
- Creation of **entrepreneurial incubators** for students to learn best-practices around business development
Comprehensive Local Needs Assessment

During the 2019-20 school year, regional teams from various stakeholder groups came together to review and plan around the following data:

- Local workforce needs
- Local secondary and post-secondary opportunities for students
- Career guidance & counseling
- Equity & access to secondary and post-secondary programs
- Teacher recruitment, training, & retention
Kansas and Missouri, along with most states, use the national Career Pathways model to organize career and college readiness into fields, clusters, and pathways.
<table>
<thead>
<tr>
<th>Pathway Name</th>
<th>High School Pathway Size (2018 Conc Count)</th>
<th>Labor Market Demand (Annual Openings)</th>
<th>Wage (Average Entry)</th>
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STEM Education - Our Future

- Career Pathways for expansion based on current employment needs in the Kansas City metropolitan area:
  - Near-term over next one or two years
    - Business Finance/Insurance
    - Information Technology - Network Systems
    - Information Technology - Programming & Software Development
    - Teaching/Training expansion
  - Long-term over next three to five years
    - Advanced Manufacturing
STEM Education - Our Future

- STEM Education Long-Term Goals
  - Perkins V Comprehensive Local Needs Assessment
  - Value-Added High School Diplomas
  - Community Collaboration with K-12 partners
  - Develop and Revise STEM/CTE Curriculum based on market trends
  - Engage Families in data-driven educational and career decision
  - Teacher Recruitment and Development
  - Ongoing Evaluation of STEM Programs to ensure we meet student needs
QUESTIONS?
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