

Disclosures

- None

CIO

- Security
- Application Administration
- Database Administration
- Web Design Team
- E-Mail Server Administration
- Windows & Unix Server Support
- Data Center Support
- Telecommunications (Phones)
- Network Engineering
- Project Management
- Educational Computing
- Desktop Support
- Library

CMIO

- Clinical Application Support
- Clinical Application Trainers
- Decision Support Team
- Dictionary Maintenance
- Reporting Group
- Interface Group
- Implementation Analysts
- Institutional System Selection Criteria



Bruce Almighty, 2003 [https://www.youtube.com/watch?v= Ut8HupAxVY](https://www.youtube.com/watch?v=Ut8HupAxVY)

Important Central IT Goals: Institutional

- Biobanking
- Cancer Center
- Interfacing and interoperability with internal entities (acquired institutions) and external entities (other labs, neighboring institutions)
 - Can I find my reports?
 - Can I view the patient's chart (care everywhere, etc)
- Go lives of new systems
- Cost saving
- Infrastructure upgrades
- Updating EMR config
- Consent systems
- Improving the patient portal
- Referral systems
- Decision support initiatives
- User training
- Regulation Compliance
- System consolidation

Important Central IT Goals: Departmental

- Barcoding & tracking
- Whole slide imaging
- Conference room upgrades
- Decreasing administrative burden
- Decreasing paper and manual processes
- Upgrading old systems
- Interfacing systems and new devices
- Cost saving
- Improving billing collection rates

Important Central IT Goals: Informatics

- Keeping the lines of communication open
- Maintaining an institutional lecture series
- Maintaining an informatics rotation
- Establishing informatics fellowship
- Presenting at national meetings
- Obtaining certifications and training

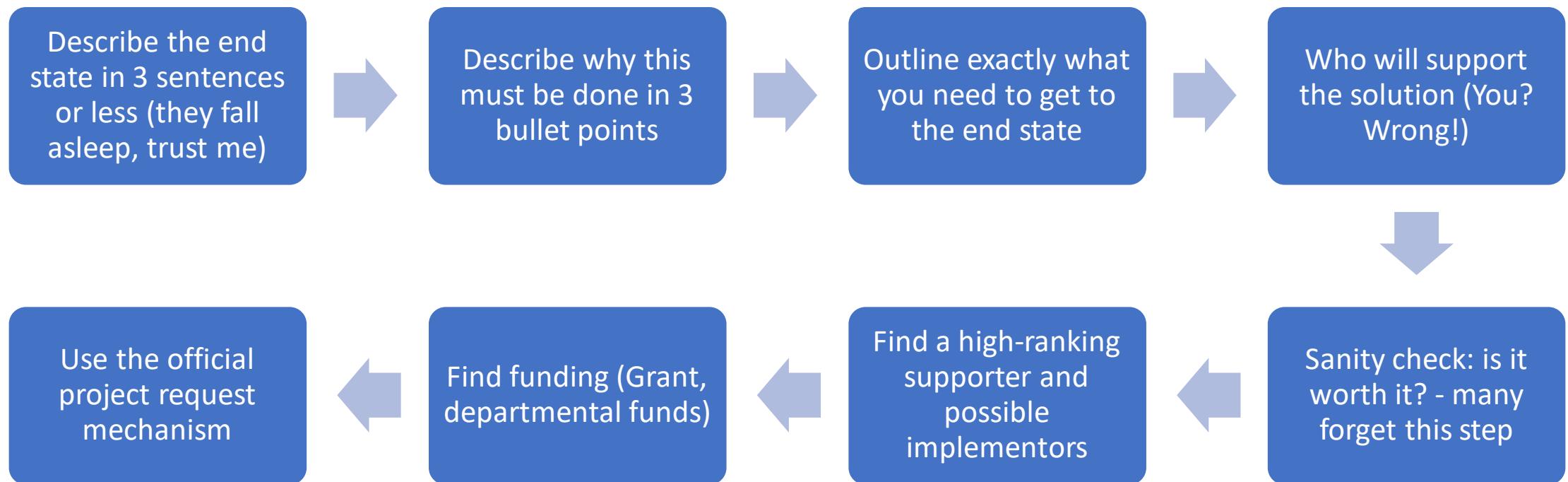
The opposite of “Important goals”

- Automating that thing that guy does
- Clicking less
- Virtual Reality
- Blockchain
- 3-D reconstruction
- Machine learning
- Telemedicine
- Speech recognition
- GPUs

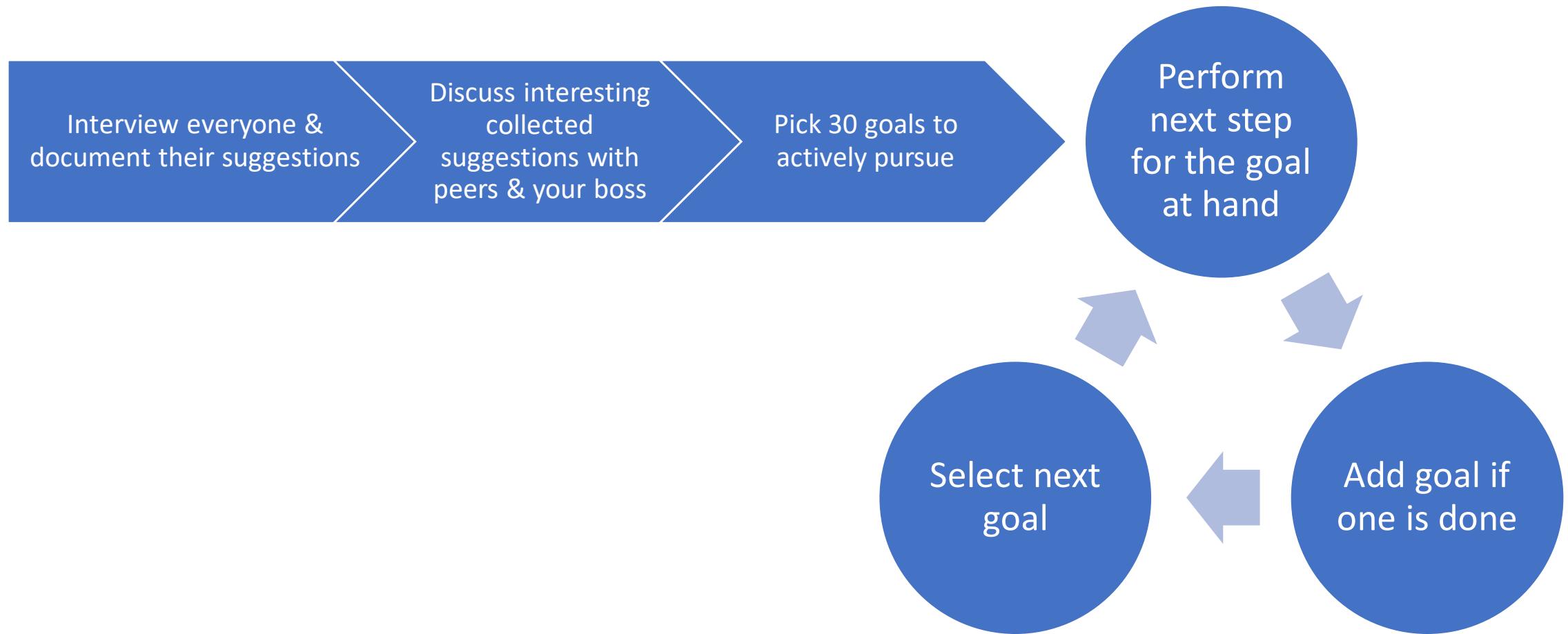
The last thing central IT wants to hear about

- A blockchain of 3-D reconstructed speech recognized via GPU-based machine learning for telemedicine in virtual reality to automate that thing that guy does because no one should click that much.

Pet Project Cook Book



Project Manager Cook Book



Vendor Relations

- Amazing groups fighting to change the world
- Unfortunately also fighting to take your money in the most effective way possible
- Legal team are your unhurried guardian angels: contracts, BAAs
 - Regulations: GDPR enforcement date: May 25, 2018; Right to be forgotten?

Everyone hates central IT (they are used to it)

- Never fast enough
- Never responsive enough
- Never cheap enough
- Scene from Bruce Almighty with email prayers
- The mother you didn't know you had (or your nemesis)
- Ideal scenarios vs capabilities and budget

If you want it done right, do it yourself

- Test and know your limits
- Collaborate with those who know better
- Read the news
- Everything takes twice as long and costs twice as much as you planned

EMRs: More complex than you can imagine

- Multiple servers
- Redundancy
- Multiple environments
- Permissions
- Multiple Environments
- Data Couriers
- Discrete data hierarchies
- “Magical” version upgrades

Dealing with Teams

- Never have lunch alone
- Happy hours are great for team building
- Do favors
- Follow up with meetings in a timely fashion
- Keep documentation
- Estimate timelines generously

Unless you are saving lives, never argue

- Your initiatives should be self-evident
- Your time is better spent on the other 29 projects
- Getting to 85% of what you wanted is an outstanding result in a large organization
- Ask for guidance and help, propose your approach

Vision of the future

- <https://gizmodo.com/uhh-google-assistant-impersonating-a-human-is-scary-as-1825861987>



ORDER

- <https://github.com/victorbrodsky/order-lab>
- Live at NewYork Prebyterian; going live at Cedars-Sinai
- Platform with 7 different web Apps after 4,677 "commits"
- Open Source, Apache Licensed, PHP/Javascript/ORM/SQL
- Works w/ Active Directory (single sign-on & local users); Windows or Linux

Apps

- Glass Slide Scan Ordering System
- Employee Directory
- Secure Fellowship Application Submission and Candidate Evaluation System
- Deidentifier / Honest Broker System for Accession Numbers
- Vacation Request Approval / Vacation Day Carryover / Away Calendar System
- Call Log Book
- Translational Research Project Request Approval Workflow, Work Order Status Tracking, Invoicing



Se7en, 1995

Flexible

- Configurable defaults for your institution
- List management
- Role-based permissions
- Event log for audits
- Sophisticated access / account request management
- E-Mail notifications

Call Case List

c.med.cornell.edu/order/call-log-book/?filter%5BmessageStatus%5D>All%20except%20deleted&filter%5BmessageCategory%5D=Pathology%20Call%20Log%20Entry_33&filter%5BmrnType%5D=1

Home New Entry My Entrees Lists Resources Data Admin

Start I End D Pathology Call Log Entry New York Hospital MRN MRN or Last Name, First Name Filter Advanced Search

ID	Last Modified	Patient Name	MRN	Location	Referring Provider	Call Issue	Author	Actions
4519.6	05/21/2018 at 08:58:56 Draft	[REDACTED]	[REDACTED]			Third+ dose platelets: Transfusion Medicine	[REDACTED]	Action ▾

History/Findings

77M with AML originally diagnosed in 2011 but now with relapsed refractory disease, admitted after fall and found to have SAH and GI bleed (CT showing multiple peripancreatic accesses, possible duodenal perforation and bleeding). Now with neutropenic fevers from multiple bacteremias including Ecoli, VRE and Candida. The patient is post endoscopy with biopsy with gastrostomy. per GI recommendations, okay to decrease parameter to >30 (previously >50).

Impression/Outcome

8:25PM: paged for 3rd dose platelets. Count at 22K (last dose platelets at 4AM). Approved third unit. 11:00AM on 5/19 LAH: Count 18K. Last unit given at 4AM. paged to approve third unit. Patient is s/p endoscopy and drainage of peripancreatic abcess. There is no evidence of bleeding at the moment, though current platelet goal is 30K (given recent SAH, GI bleed, post-endoscopy) The patient is also to undergo MRCP to look for a pancreatic duct leak . Approved third platelet. 10:30 PM on 5/19 LAH: Count 19K. Patient does not seem to be responding well to platelet transfusions. Goal is still 30K because of recent history of ICH and GIB s/p procedure and MRCP to be done in the near future. Possibly another BMBx. Approved third unit platelets for now. If this comes up again tomorrow, will discuss platelet goal with the team. 9:48AM on 5/20 LAH: Count at 17K. Again no response to platelet transfusions. I was paged for approval of platelets. I called the PA taking care of the patient to ask if GI was comfortable lowering the platelet goal to 30 as the patient is not actively bleeding. The PA [REDACTED] said she would be discussing it later on with her attending. I approved the unit of platelets for now. UPDATES 5/21: Latest platelet count 14, last transfused yesterday morning.

Laboratory Values of Interest

Platelets 22

Miscellaneous

Platelet Goal 30

4539.2	05/21/2018 at 08:41:47 Draft	[REDACTED]	[REDACTED]	Emergency release: Transfusion Medicine	[REDACTED]	Action ▾
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History/Findings

20th May RED BOOK ENTRY, EMERGENCY RELEASE : 72-year-old female h/o essential tremor presenting after a fall with headstrike. Sustained a 10 cm head laceration that was actively bleeding through several layers of gauze. The patient was hypotensive in the ED. Hg 12.7.

Impression/Outcome

Most recent Hg 11.3. s/p 1U pRBCs. Hemodynamically stable currently. CT head demonstrated small frontal SAH.

Thanks! ...Next Speaker:

- **Chris Williams, MD**
- BS & MS in Electrical and Computer Engineering from Oklahoma State
- Worked as an electronics engineer at the Airforce base there
- MD from University of Oklahoma College of Medicine
- Clinical Pathology training from OU Medical Center in 2014
- Completed Pathology Informatics Fellowship at U of Michigan
- Now at OUHSC
- Board Certified in Clinical Pathology and Clinical Informatics